

Appendix 2.A

Legal Authority Ordinance Citations

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The following tables lists the municipal codes and ordinances cited by each jurisdiction as evidence of legal authority to implement Permit Sections VI.A.2.a and VI.A.2.b.

Table 1 Legal Authority for Permit Section VI.A.2.a.i

<i>Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.02.B; LAMC 64.70.02.C.1.a; LAMC 64.70.02.D; LAMC 64.70.03.A
County of Los Angeles	LACC §12.80.410 [illicit discharge prohibited]; LACC §12.80.450 [construction]; LACC §12.80.460 [industrial and commercial]; LACC §12.80.470 and §12.80.480 [industrial and commercial NPDES requirements]; LACC §12.84.440 [LID standards]; LACC §12.84.445 [hydromodification control]; LACC §12.84.450 [LID Plan Review]; LACC §22.60.330 [general prohibitions]; LACC §22.60.340 [violations]; LACC §12.60.350 [public nuisance]; LACC §12.60.360 [infractions]; LACC §12.60.370 [injunction]; LACC §12.60.380 [enforcement]; LACC §12.60.390 [zoning enforcement order]; LACC §26.103 [violations and penalties]; LACC §26.104 [enforcement]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504 Prohibited Activities; BHMC §§ 9-4-507 Requirements for Construction Activities
City of Culver City	CCMC 5.05.035; CCMC 5.05.025(D); CCMC 5.05.040
City of Inglewood	
City of West Hollywood	WHMC 15.56.060 Prohibited Activities; WHMC 15.56.090 Requirements for Industrial/Commercial and Construction Activities
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 2 Legal Authority for Permit Section VI.A.2.a.ii

<i>Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.03.A
County of Los Angeles	LACC §12.80.410 [illicit discharge prohibited]; LACFCD Code §21.07 Prohibited Discharges
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504F Prohibited Activities
City of Culver City	CCMC 5.05.025(A)(1)
City of Inglewood	
City of West Hollywood	WHMC 15.56.060 Prohibited Activities
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 3 Legal Authority for Permit Section VI.A.2.a.iii

<i>Prohibit and eliminate illicit discharges and illicit connections to the MS4.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.03.A; LAMC 64.70.03.B
County of Los Angeles	LACC §12.80.410 [illicit discharge prohibited]; LACC §12.80.420 [illicit connections prohibited]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504A Prohibited Activities
City of Culver City	CCMC 5.05.025(A)(1)
City of Inglewood	
City of West Hollywood	WHMC 15.56.060 Prohibited Activities
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 4 Legal Authority for Permit Section VI.A.2.a.iv

<i>Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.03.A
County of Los Angeles	LACC §12.80.410 [illicit discharge prohibited]; LACC §12.80.440 [littering and other polluting prohibited]; LACFCD Code §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504 Prohibited Activities
City of Culver City	CCMC 5.05.025(A)(1)
City of Inglewood	
City of West Hollywood	WHMC 15.56.060 Prohibited Activities; WHMC 15.56.080 Good Housekeeping Provisions; WHMC 15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.095 Standard Urban Storm Water Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 5 Legal Authority for Permit Section VI.A.2.a.v

<i>Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.03.A; LAMC 64.70.07
County of Los Angeles	LACC §12.80.490 [notification of uncontrolled discharge]; LACC §12.80.570 [obstructing access to facilities]; LACC §12.80.580 [compliance inspection]; LACC §12.80.610 [violation a nuisance]; LACC §12.80.620 [nuisance abatement]; LACC §12.80.635 [violation penalty]; LACC §12.80.640 [penalties not exclusive]; LACC §12.80.440 [LID standards]; LACC §12.80.445 [hydromodification control];

	LACC §12.84.450 [LID Plan Review]; LACC §22.60.330 [general prohibitions]; LACC §22.60.340 [violations]; LACC §12.60.350 [public nuisance]; LACC §12.60.360 [infractions]; LACC §12.60.370 [injunction]; LACC §12.60.380 [enforcement]; LACC §12.60.390 [zoning enforcement order]; LACC §26.103 [violations and penalties]; LACC §26.104 [enforcement]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §19.11 Violation a Public Nuisance; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.19 Conflicts With Other Code Sections; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504G Prohibited Activities; BHMC §§ 9-4-509 Enforcement
City of Culver City	CCMC 5.05.025(F); CCMC 5.05.045
City of Inglewood	
City of West Hollywood	WHMC 15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; WHMC 15.56.100 Enforcement; WHMC 1.08 General Penalty Provisions
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 6 Legal Authority for Permit Section VI.A.2.a.vi

<i>Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.05.A; LAMC 64.70.05.B.6
County of Los Angeles	LACC §12.80.490 [notification of uncontrolled discharge]; LACC §12.80.570 [obstructing access to facilities]; LACC §12.80.580 [compliance inspection]; LACC §12.80.610 [violation a nuisance]; LACC §12.80.620 [nuisance abatement]; LACC §12.80.635 [violation penalty]; LACC §12.80.640 [penalties not exclusive]; LACC §12.80.440 [LID standards]; LACC §12.80.445 [hydromodification control]; LACC §12.84.450 [LID Plan Review]; LACC §22.60.330 [general prohibitions]; LACC §22.60.340 [violations]; LACC §12.60.350 [public nuisance]; LACC §12.60.360 [infractions]; LACC §12.60.370 [injunction]; LACC §12.60.380 [enforcement]; LACC §12.60.390 [zoning enforcement order]; LACC §26.103 [violations and penalties]; LACC §26.104 [enforcement]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §19.11 Violation a Public Nuisance; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.19 Conflicts With Other Code Sections; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-509 Enforcement
City of Culver City	CCMC 5.05.045
City of Inglewood	
City of West Hollywood	WHMC 15.56.100 Enforcement; WHMC 1.08 General Penalty Provisions
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.430 (Inspections and sampling), 5.20.330 (Monitoring facilities), 5.20.450 (Search warrants), and 5.20.500 (Notice of Violation); SMMC Chapter 7.10 – Sections 7.10.070 (Enforcement and penalties)

Table 7 Legal Authority for Permit Section VI.A.2.a.vii

<i>Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	California Government Code §6502; California Government Code §23004
County of Los Angeles	California Government Code §6502; California Government Code §23004
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504G Prohibited Activities; BHMC §§ 9-4-504H Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges
City of Culver City	California Government Code §6502; California Government Code §23004
City of Inglewood	
City of West Hollywood	WHMC 15.56; The City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.
City of Santa Monica	SMMC Chapter 5.20 and SMMC Chapter 7.10

Table 8 Legal Authority for Permit Section VI.A.2.a.viii

<i>Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	California Government Code §6502; California Government Code §23004
County of Los Angeles	California Government Code §6502; California Government Code §23004
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504G Prohibited Activities; BHMC §§ 9-4-504H Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges
City of Culver City	California Government Code §6502; California Government Code §23004
City of Inglewood	
City of West Hollywood	WHMC 15.56; The City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.
City of Santa Monica	SMMC Chapter 5.20 and SMMC Chapter 7.10

Table 9 Legal Authority for Permit Section VI.A.2.a.ix

<i>Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.05.A; LAMC 64.70.05.B; LAMC 64.70.04.B
County of Los Angeles	LACC §12.80.490 [notification of uncontrolled discharge]; LACC §12.80.570 [obstructing access to facilities]; LACC §12.80.580 [compliance inspection]; LACC §12.80.610 [violation a nuisance]; LACC

	\$12.80.620 [nuisance abatement]; LACC §12.80.635 [violation penalty]; LACC §20.60.380 [enforcement]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-506 Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; BHMC §§ 1-3-103 Public Nuisances; BHMC §§ 1-3 Code Violations
City of Culver City	CCMC 5.05.045(C)
City of Inglewood	
City of West Hollywood	WHMC 15.56.100.H Enforcement
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.430 (Inspections and sampling), 5.20.330 (Monitoring facilities), 5.20.450 (Search warrants), and 5.20.500 (Notice of Violation); SMMC Chapter 7.10 – Sections 7.10.070 (Enforcement and penalties)

Table 10 Legal Authority for Permit Section VI.A.2.a.x

<i>Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.02.D
County of Los Angeles	LACC §12.80.450 [construction mitigation]; LACC §12.80.500 [good housekeeping practices]; LACC §12.80.510 [construction BMPs]; LACC §12.80.520 [industrial/commercial BMPs]; LACC §12.84.440 [LID standards]; LACC §12.84.450 [LID Plan Review]; LACC §22.60.330 [general prohibitions]; LACC §22.60.380 [enforcement]; LACC §22.60.390 [zoning enforcement order]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-506 Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; BHMC §§ 9-4-509 Enforcement; BHMC §§ 1-3-103 Public Nuisances
City of Culver City	5.05.040
City of Inglewood	
City of West Hollywood	Article 11, §7 of the California Constitution; California Public Resources Code §21000 et seq. (CEQA); WHMC 15.56.080 Good Housekeeping Provisions; WHMC 15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; WHMC Title 17 Zoning
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 11 Legal Authority for Permit Section VI.A.2.a.xi

<i>Require that structural BMPs are properly operated and maintained.</i>	
Agency	Water Quality Ordinance

City of Los Angeles	LAMC 64.70.02.D
County of Los Angeles	LACC §12.80.530 [installation of structural BMPs]; LACC §22.60.380 [enforcement]; LACC §22.60.390 [zoning enforcement order]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-506 Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; BHMC §§ 9-4-509 Enforcement
City of Culver City	CCMC 5.05.040(G); CCMC 5.05.040(H)
City of Inglewood	
City of West Hollywood	Article 11, §7 of the California Constitution; California Public Resources Code §21000 et seq. (CEQA); WHMC 15.56.080 Good Housekeeping Provisions; WHMC 15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; WHMC Title 17 Zoning
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 12 Legal Authority for Permit Section VI.A.2.a.xii

<i>Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.05.B.3
County of Los Angeles	LACC §12.80.530 [installation of structural BMPs]; LACC §22.60.380 [enforcement]; LACC §22.60.390 [zoning enforcement order]; LACC §26.106 [permits]; LACC §26.108 [inspections]; LACFCD Code §21.05 Standards, Guidelines, and Criteria; LACFCD Code §21.07 Prohibited Discharges; LACFCD Code §21.09 Installation or Use of Illicit Connections Prohibited; LACFCD Code §21.11 Littering Prohibited; LACFCD Code §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity; LACFCD Code §21.15 Notification of Uncontrolled Discharges Required; LACFCD Code §21.17 Requirement to Monitor and Analyze; LACFCD Code §21.23 Violation a Public Nuisance
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-506 Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; BHMC §§ 9-4-509 Enforcement
City of Culver City	CCMC 5.05.040(G); CCMC 5.05.040(H)
City of Inglewood	
City of West Hollywood	California Public Resources Code § 21000 et seq (CEQA); WHMC 15.56.100 Enforcement
City of Santa Monica	SMMC Chapter 5.20 – Sections 5.20.010 through 5.20.620; SMMC Chapter 7.10 – Sections 7.10.010 through 7.10.080

Table 13 Legal Authority for Permit Section VI.A.2.b.i

<i>These statements must include: (i) Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR § 122.26(d)(2)(i)(A)-(F) and of this Order.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70 General Provisions; LAMC 64.70.01 (Definitions and Abbreviations); LAMC 64.70.02 (Pollutant and Discharge Control); LAMC 64.70.03 (Elimination of Illicit Discharges and Illicit Connections); LAMC 64.70.05 (Authority to Inspect); LAMC 64.70.06 (Authority to Arrest and Issue Citations); LAMC 64.70.07 (Enforcement); LAMC 64.70.09 (Remedies Not Exclusive); LAMC 64.70.10 (Disposition of Money Collected); LAMC 64.70.11 (Stormwater and Urban Runoff Pollution Education); LAMC 64.70.12 (Construction and Application); LAMC 64.70.13 (Severability); LAMC 64.72 (Stormwater Pollution Control Measures for Development Planning and Construction Activities); LAMC 64.72.01 (Authority of the Board of Public Works); LAMC 64.72.02 (Funds Collected from Waiver); LAMC 64.72.03 (Supplemental Provisions); LAMC 64.72.04 (Authority to Inspect and Enforce Stormwater Pollution Control Measures); LAMC 64.72.05 (LID Plan Check Fees); California Government Code §6502; California Government Code §23004
County of Los Angeles	LACC Title 12 Chapter 12.08 including §12.80.010 through §12.80.360 [Definition], §12.80.370 [Short title], §12.80.380 [Purpose and intent], §12.80.390 [Applicability of this chapter], §12.80.400 [Standards, guidelines, and criteria], §12.80.410 [Illicit discharges prohibited], §12.80.420 [Installation or use of illicit connections prohibited], §12.80.430 [Removal of illicit connection from the storm drain system], §12.80.440 [Littering and other discharge of polluting or damaging substances prohibited], §12.80.450 [Stormwater and runoff pollution mitigation for construction activity], §12.80.460 [Prohibited discharges from industrial or commercial activity], §12.80.470 [Industrial/commercial facility sources required to obtain a NPDES permit], §12.80.480 [Public facility sources required to obtain a NPDES permit], §12.80.490 [Notification of uncontrolled discharges required], §12.80.500 [Good housekeeping provisions]; §12.80.510 [Best management practices for construction activity], §12.80.520 [Best management practices for industrial and commercial facilities], §12.80.530 [Installation of structural BMPs], §12.80.540 [BMPs to be consistent with environmental goals], §12.80.550 [Enforcement – Director’s powers and duties], §12.80.560 [Identification for inspectors and maintenance personnel], §12.80.570 [Obstructing access to facilities prohibited], §12.80.580 [Inspection to ascertain compliance – Access required], §12.80.590 [Interference with inspector prohibited], §12.80.600 [Notice to correct violations – Director may take action], §12.80.610 [Violation a public nuisance], §12.80.620 [Nuisance abatement – Director to perform work when – Costs], §12.80.630 [Violation – Penalty], §12.80.635 [Administrative fines], §12.80.640 [Penalties not exclusive], §12.80.650 [Conflicts with other code sections], §12.80.660 [Severability], §12.80.700 [Purpose], §12.80.710 [Applicability], §12.80.720 [Registration required], §12.80.730 [Exempt facilities], §12.80.740 [Certificate of inspection – Issuance by the director], §12.80.750 [Certificate of inspection – Suspension or revocation], §12.80.760 [Certificate of inspection – Termination], §12.80.770 [Service fees], §12.80.780 [Fee schedule], §12.80.790 [Credit for overlapping inspection programs], §12.80.800 [Annual review of fees]; LACC Title 12, Chapter 12.84 Low Impact Development Standards including §12.84.410 [Purpose], §12.84.420 [Definitions], §12.84.430 [Applicability], §12.84.440 [Low Impact Development Standards], §12.84.445 [Hydromodification Control], §12.84.450 [LID Plan Review], §12.84.460 [Additional Requirements]; LACC Title 22 Planning and Zoning Part 6 Enforcement Procedures including §22.60.330 [General prohibitions], §22.60.340 [Violations], §22.60.350 [Public nuisance], §22.60.360 [Infractions], §22.60.370 [Injunction], §22.60.380 [Enforcement], §22.60.390 [Zoning enforcement order and noncompliance fee]; LACC Title 26 Building Code including §26.103 [Violations and Penalties], §26.104 [Organization and Enforcement], §26.105 [Appeals Boards], §26.106 [Permits], §26.107 [Fees], §26.108 [Inspections]; LACFCD Code Chapter 21 Stormwater and Runoff Pollution Control including §21.01 [Purpose and Intent], §21.03 [Definitions], §21.05 [Standards, Guidelines, and Criteria], §21.07 [Prohibited Discharges], §21.09 [Installation or Use of Illicit Connections Prohibited], §21.11 [Littering Prohibited], §21.13 [Evidence of Compliance with Permit Requirements for Industrial or Commercial Activity], §21.15 [Notification of Uncontrolled Discharges Required], §21.17 [Requirement to Monitor and Analyze], §21.21 [Severability], §21.23 [Violation a Public Nuisance]; California Government Code §6502, §23004, §8100 et seq.
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504G Prohibited Activities; BHMC §§ 9-4-504H Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges
City of Culver City	CCMC 5.05.005 Title; CCMC 5.05.010 Findings; CCMC 5.05.015 Purpose and Intent; CCMC 5.05.020 Definitions; CCMC 5.05.025 Prohibited Activities; CCMC 5.05.030 Requirements for existing properties, good housekeeping provisions; CCMC 5.05.035 Requirements for Industrial/Commercial and Construction Activities; CCMC 5.05.040 Standard Urban Stormwater

<i>These statements must include: (i) Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR § 122.26(d)(2)(i)(A)-(F) and of this Order.</i>	
Agency	Water Quality Ordinance
	Mitigation Plan (SUSMP) requirements for new development and redevelopment projects; CCMC 5.05.045 Enforcement; CCMC 5.05.050 Fees; California Government Code §6502; California Government Code §23004
City of Inglewood	
City of West Hollywood	WHMC Chapter 1.08 General Penalty Provisions; WHMC Chapter 15.56 Stormwater and Urban Runoff Pollution Control; 1 – Criminal Citation (judicial); 2 – Administrative Citation (administrative); 3 – Administrative Cease and Desist Order (administrative); 4 – Civil Nuisance Abatement (judicial); 5 – Civil Injunction (judicial); 6 – Permit Revocation/Modification (administrative); 7 – All other criminal and civil remedies available by law
City of Santa Monica	

Table 14 Legal Authority for Permit Section VI.A.2.b.ii

<i>These statements must include: (ii) Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.</i>	
Agency	Water Quality Ordinance
City of Los Angeles	LAMC 64.70.06; LAMC 64.70.07; Previously listed LAMC ordinances
County of Los Angeles	LACC §12.80.550 [Enforcement – Director’s powers and duties]; LACC §12.80.600 [Notice to correct violations – Director may take action]; LACC §12.80.610 [Violation a public nuisance]; LACC §12.80.620 [Nuisance abatement – Director to perform work when – Costs]; LACC §12.80.630 [Violation – Penalty]; LACC §12.80.635 [Administrative fines]; LACC §12.80.640 [Penalties not exclusive]; LACC §12.84.450 [LID Plan Review]; LACC §12.84.460 [Additional Requirements]; Title 26 §103 [Violations and Penalties]; Title 26 §104 [Organization and Enforcement]; Title 26 §105 [Appeals Board]; Title 26 §106 [Permits]; LACC §22.60.330 [General prohibitions]; LACC §22.60.340 [Violations]; LACC §22.60.350 [Public nuisance]; LACC §22.60.360 [Infractions]; LACC §22.60.370 [Injunction]; LACC §22.60.380 [Enforcement]; LACC §22.60.390 [Zoning enforcement order and noncompliance fee]; LACFCD Code §21.05 [Standards, Guidelines, and Criteria]; LACFCD Code §21.07 [Prohibited Discharges]; LACFCD Code §21.09 [Installation or Use of Illicit Connections Prohibited]; LACFCD Code §21.11 [Littering Prohibited]; LACFCD Code §21.13 [Evidence of Compliance with Permit Requirements for Industrial or Commercial Activity]; LACFCD Code §21.15 [Notification of Uncontrolled Discharges Required]; LACFCD Code §21.17 [Requirement to Monitor and Analyze]; LACFCD Code §21.23 [Violation a Public Nuisance]
Los Angeles County Flood Control District	
City of Beverly Hills	BHMC §§ 9-4-504G Prohibited Activities; BHMC §§ 9-4-504H Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges
City of Culver City	CCMC 5.05.045(E)
City of Inglewood	
City of West Hollywood	WHMC 15.56; The City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.
City of Santa Monica	SMMC Chapter 5.20 – Section 5.20.500 (Notice of Violation), 5.20.510 (Consent Orders), 5.20.520 (Show Cause Hearing), 5.20.530 (Compliance Orders), 5.20.540 (Cease and Desist Orders), 5.20.550 (Liability for Costs of Correction Arising From Unlawful Discharge), 5.20.560 (Industrial Wastewater Permit Suspension or Revocation Order), 5.20.570 (Disconnection of Nonpermitted Violators), 5.20.580 (Additional Emergency Remedial Measures), 5.20.590 (Injunctive Relief), 5.20.600 (Civil Liability), 5.20.610 (Criminal Prosecution), and 5.20.620 (Water Supply Severance); SMMC Chapter 7.10 – Sections 7.10.070 (Enforcement and penalties), 7.10.080 (Additional best management practice requirements)

Appendix 2.B

Legal Authority Documentation

DRAFT



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

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JOHN F. KRATTLI
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December 16, 2013

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Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For Los Angeles County Flood
Control District's Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the Los Angeles County Flood Control District ("LACFCD"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

LACFCD has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles, the Los Angeles County Code and LACFCD's Flood Control District Code ("Code") are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

LACFCD Code Chapter 21 - STORMWATER AND RUNOFF
POLLUTION CONTROL including:

§21.01 Purpose and Intent

§21.03 Definitions

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.19 Conflicts With Other Code Sections

§21.21 Severability

§21.23 Violation a Public Nuisance

California Government Code §6502

California Government Code §23004

California Water Code §8100 *et. seq.*

Relationship Of Applicable Ordinances Or Other Legal Authorities To
The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County of Los Angeles' ordinances, LACFCD's ordinances, and statutes relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited] LACFCD Code: §21.07 Prohibited Discharges
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited] LACFCD Code: §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §19.11 Violation a Public Nuisance §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.19 Conflicts With Other Code Sections §21.23 Violation a Public Nuisance
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 California Government Code §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	Los Angeles County Code: §12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
xi. Require that structural BMPs are properly operated and maintained.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.23 Violation a Public Nuisance
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

Los Angeles County Code:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

LACFCD Code:

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.23 Violation a Public Nuisance

LACFCD attempts to first resolve each enforcement action
administratively. However, the above cited ordinances also provide LACFCD
with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By 

JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

CITY OF LOS ANGELES

CALIFORNIA



ERIC GARCETTI

MAYOR

BOARD OF PUBLIC WORKS MEMBERS

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January 22, 2015

Mr. Sam Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Mr. Ivar Ridgeway

Dear Mr. Unger:

CERTIFICATION BY LEGAL COUNSEL FOR THE CITY OF LOS ANGELES CONFIRMING LEGAL AUTHORITY TO IMPLEMENT THE PROVISIONS OF THE MUNICIPAL STORMWATER PERMIT

I write pursuant to Part VI(A)(2)(b) of Order No. R4-2012-0175, otherwise known as the Municipal Separate Stormwater Sewer System (MS4) Permit (the "Order"). Part VI(A)(2)(b) of the Permit provides:

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d) (2) (i) (AF) and this Order."

The Office of the City Attorney of the City of Los Angeles (City), serving as its legal counsel, certifies that the City has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and of the Order. This correspondence addresses all legal authority requirements as listed in the Order. Subsequently, annual certification by our office will be included in the Stormwater Annual Report as required by the Order.

Order Part VI(A)(2)(b)(i) - "Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d) (2) (i) (A-F) and this Order"

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Below is a list of applicable Los Angeles Municipal Code (LAMC) provisions that provide the requisite legal authorities:

LAMC 64.70 General Provisions.
LAMC 64.70.01 Definitions and Abbreviations.
LAMC 64.70.02 Pollutant Discharge Control.
LAMC 64.70.03 Elimination of Illicit Discharges and Illicit Connections.
LAMC 64.70.05 Authority to Inspect.
LAMC 64.70.06 Authority to Arrest and Issue Citations.
LAMC 64.70.07 Enforcement.
LAMC 64.70.08 Remedies Not Exclusive.
LAMC 64.70.09 Liability for Costs of Correction Arising from Unlawful Discharge.
LAMC 64.70.10 Disposition of Money Collected.
LAMC 64.70.11 Stormwater and Urban Runoff Pollution Education.
LAMC 64.70.12 Construction and Application.
LAMC 64.70.13 Severability.
LAMC 64.72 Stormwater Pollution Control Measures for Development Planning and Construction Activities.
LAMC 64.72.01 Authority of the Board of Public Works.
LAMC 64.72.02 Funds Collected from Waiver.
LAMC 64.72.03 Supplemental Provisions.
LAMC 64.72.04 Authority to Inspect and Enforce Stormwater Pollution Control Measures.
LAMC 64.72.05 LID Plan Check Fees.

In addition, statewide regulations provide further legal authorities with respect to intergovernmental authorities, specifically:

California Government Code §6502
California Government Code §23004

Relationship of Applicable Ordinances and Other Legal Authorities to the Requirements of 40CFR §122.26(d)(2)(i)(a-F) and the Order

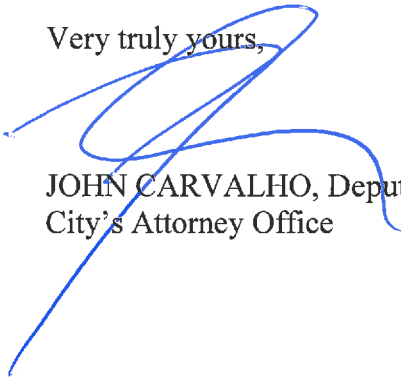
The table below indicates the basic relationship between the “Legal Authority” requirements listed in Section VI(A)(2)(b) of the Order and the existing legal statutes that provide this legal authority.

Legal Authority Required by Permit	City/State Legal Provisions
VI.A.2.i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	LAMC 64.70.02.B LAMC 64.70.02.C.1.a LAMC 64.70.02.D LAMC 64.70.03.A
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A	LAMC 64.70.03.A
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4	LAMC 64.70.03.A LAMC 64.70.03.B
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4	LAMC 64.70.03.A
v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows)	LAMC 64.70.03.A LAMC 64.70.07
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders	LAMC 64.70.05.B.4 LAMC 64.70.05.B.6
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation	California Government Code §6502 California Government Code §23004

ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4	LAMC 64.70.05.A LAMC 64.70.05.B LAMC 64.72.04.B
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations	LAMC 64.70.02.D
xi. Require that structural BMPs are properly operated and maintained	LAMC 64.70.02.D
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4	LAMC 64.70.05.B.3
VI.A.b.ii. Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.	The local administrative and legal procedures available to mandate compliance with the above LAMC provisions are specified in the provisions themselves with key enforcement provisions being LAMC 64.70.06 and LAMC 64.70.07

The City is in the process of updating the LAMC with respect to its stormwater regulations. These changes will be reported with the 2014-2015 annual report.

Very truly yours,


JOHN CARVALHO, Deputy City Attorney
City's Attorney Office

WPDCR9163



RICHARDS | WATSON | GERSHON

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December 1, 2014

VIA ELECTRONIC TRANSMISSION

Mr. Samuel Unger
Executive Officer
Los Angeles Regional Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
sunger@waterboards.ca.gov

Re: Legal Authority of the City of Beverly Hills to Implement and Enforce the Requirements of 40 C.F.R. § 122.26(d)(2)(i)(A-F) and RWQCB Order R4-2012-0175, NPDES Permit CAS004001

Dear Mr. Unger:

The City of Beverly Hills (the “City”), by and through its City Attorney, hereby submits the following certification (“Statement”), pursuant to Section VI.A.2.b of Order R4-2012-0175 (NPDES Permit CAS004001), issued by the California Regional Water Quality Control Board, Los Angeles Region (“RWQCB”) on November 8, 2012 and entitled “Waste Discharge Requirements for Municipal Separate Storm Sewer System (“MS4”) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4” (the “Permit”).

The City is one of the co-permittees under the Permit. Section VI.A.2.b of the Permit requires the City to provide the RWQCB with a statement by its chief legal counsel, certifying that the City has the legal authority to implement and enforce each of the current requirements set forth in 40 C.F.R. § 122.26(d)(2)(i)(A-F) and the Permit. The purpose of this Statement is to describe the City’s compliance with Section VI.A.2.b of the Permit. As discussed in further detail herein, it is our opinion that the City has the necessary legal authority to implement the Permit and to control and prohibit discharges of pollutants into the Municipal Separate Storm Sewer System (“MS4”). However, this Statement is not, nor should it be construed as, a waiver of any rights that the City may have relating to the Permit.

1. Legal Authority Statement

In our opinion, the City has the necessary legal authority to comply with the legal requirements imposed upon it under the Permit, consistent with the requirements set

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forth in the U.S. Environmental Protection Agency's regulations promulgated under the Clean Water Act, and, specifically, 40 C.F.R. § 122.26(d)(2)(i)(A-F), and to the extent permitted by state and federal law and subject to the limitations on municipal action under the California and United States Constitutions.

The City, as a general law city, has broad general police powers under the California Constitution to enact legislation to promote the health and welfare of the community to the extent not preempted by federal or state law. In addition, the City adopted ordinances for the purpose of ensuring that it has adequate legal authority to implement and enforce its storm water control program. The City has the authority under the California Constitution and state statutes to enact and enforce these ordinances, and these ordinances were duly enacted.

2. Ordinances

The City has adopted ordinances related to the regulation of urban runoff to control and prohibit discharges of pollutants into the MS4 and to comply with the requirements of the Permit applicable to it, as well as, to the extent applicable, 40 C.F.R. § 122.26(d)(2)(i)(A)-(F). The City's Storm Water Ordinance (Article 5 of Chapter 4 of Title 9 of the Beverly Hills Municipal Code ("BHMC")) is the principal City ordinance addressing the control of urban runoff. In addition, we cite below the BHMC sections that implement and enforce the following requirements of 40 C.F.R. § 122.26(d)(2)(i)(A)-(F) and the Permit:

- i. 40 C.F.R. § 122.26(d)(2)(i)(A); Permit Section VI.A.2.a.i: Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit (BHMC §§ 9-4-504 – Prohibited Activities; and 9-4-507 – Requirements for Construction Activities);
- ii. 40 C.F.R. § 122.26(d)(2)(i)(C); Permit Section VI.A.2.a.ii: Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A (BHMC § 9-4-504.F – Prohibited Activities);
- iii. 40 C.F.R. § 122.26(d)(2)(i)(B); Permit Section VI.A.2.a.iii: Prohibit and eliminate illicit discharges and illicit connections to the MS4 (BHMC § 9-4-504.A – Prohibited Activities);

Mr. Samuel Unger
December 1, 2014
Page 3

- iv. 40 C.F.R. § 122.26(d)(2)(i)(C); Permit Section VI.A.2.a.iv: Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4 (BHMC § 9-4-504 – Prohibited Activities);
- v. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.v: Require compliance with conditions in its ordinances, permits, contracts or orders (*i.e.*, hold dischargers to its MS4 accountable for their contributions of pollutants and flows) (BHMC §§ 9-4-504.G – Prohibited Activities; and 9-4-509 – Enforcement);
- vi. 40 C.F.R. § 122.26(d)(2)(i)(E)-(F); Permit Section VI.A.2.a.vi: Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders (BHMC § 9-4-509 – Enforcement);
- vii. 40 C.F.R. § 122.26(d)(2)(i)(D); Permit Section VI.A.2.a.vii: Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among copermitees (BHMC §§ 9-4-504.G – Prohibited Activities; and 9-4-504.H – Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges);
- viii. 40 C.F.R. § 122.26 (d)(2)(i)(D); Permit Section VI.A.2.a.viii: Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation (BHMC §§ 9-4-504.G – Prohibited Activities; and 9-4-504.H – Exempted Discharges, Conditionally Exempted Discharges, or Designated Discharges);
- ix. 40 C.F.R. § 122.26(d)(2)(i)(F); Permit Section VI.A.2.a.ix: Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the City has the authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4 (BHMC §§ 9-4-506 – Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; 9-4-509 – Enforcement; 1-3-103 – Public Nuisances; and Chapter 3 of Title 1 – Code Violations);
- x. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.x: Require the use of control measures to prevent or reduce the discharge of pollutants to achieve

Mr. Samuel Unger
December 1, 2014
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water quality standards/receiving water limitations (BHMC §§ 9-4-506 – Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; 9-4-509 – Enforcement; and 1-3-103 – Public Nuisances);

- xi. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.xi: Require that structural BMPs are properly operated and maintained (BHMC §§ 9-4-506 – Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; 9-4-509 – Enforcement); and
- xii. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.xii: Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4 (BHMC §§ 9-4-506 – Urban Runoff and Storm Water Mitigation Plans for New Development and Redevelopment Projects; 9-4-509 – Enforcement).

3. Implementation

Some of the City's ordinances are implemented through permit programs and others are implemented as regulatory programs. Under each ordinance, one or more City departments or department directors are authorized and directed in each ordinance to take the actions contemplated by the ordinance (*e.g.*, to consider evidence and make findings, to issue or deny permits, to impose conditions on projects, to inspect, to take enforcement action, etc.).

The City's Storm Water Ordinance (Article 5 of Chapter 4 of Title 9 of the BHMC) is the principal City ordinance addressing the control of urban runoff. This ordinance is regulatory, and applies to specified new and existing residential and business uses and associated facilities and activities, as well as new development and redevelopment, and all other specified new and existing facilities and activities that threaten to discharge pollutants within the boundaries of the City and within its regulatory jurisdiction, whether or not a City permit or approval is required. The City's Storm Water Ordinance also contains discharge prohibitions and requirements for the implementation of BMPs and other requirements necessary to implement the Permit.

Other City departments require compliance with the City's Storm Water Ordinance as a condition of issuance of relevant City permits. City departments may also impose specific conditions of approval consistent with the City's Storm Water Ordinance. All City environmental ordinances are also implemented, in part, through the application of the CEQA process to proposed projects.

Mr. Samuel Unger
December 1, 2014
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4. Administrative and Judicial/Legal Procedures

In addition to the above authority, the City has in place various legal and administrative procedures to assist in enforcing the various urban runoff related Ordinances, including the following:

A. Administrative Remedies

- General Penalties (Chapter 3 of Title 1 of the BHMC; and BHMC § 9-4-509,)
- Administrative Penalties and Citations (Article 3 of Chapter 3 of Title 1 of the BHMC; and BHMC § 9-4-509)

B. Nuisance Remedies

- Public nuisance under State law
- City nuisance abatement (BHMC §§ 1-3-103 and 9-4-509.A)

C. Criminal Remedies

- Misdemeanor citations/prosecution (Article 1 of Chapter 3 of Title 1 of the BHMC)

D. Equitable Remedies

- Injunctive relief under State law and the Beverly Hills Municipal Code
- Declaratory relief under State law

E. Other Civil Remedies

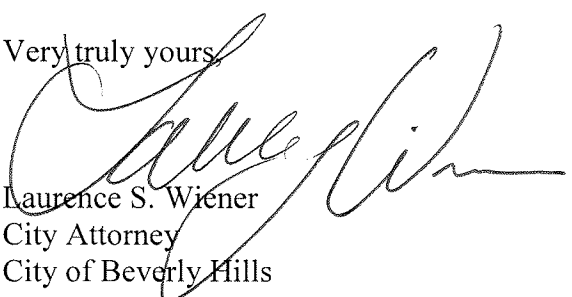
- Federal law claims (*e.g.*, Clean Water Act and Resource Conservation and Recovery Act Citizen Suits)
- Remedies under the California Government Code

Violations of the City's Storm Water Ordinance are deemed a "public nuisance", in which case enforcement actions can be completed administratively, or judicially when necessary.

Please contact me if you have any questions or if you need any additional information regarding the City's legal authority to enforce the Permit.

Mr. Samuel Unger
December 1, 2014
Page 6

Very truly yours,


Laurence S. Wiener
City Attorney
City of Beverly Hills

cc: Mahdi Aluzri, Assistant City Manager
George Chavez, Director of Public Works Services
Trish Rhay, Utilities Manager
Josette Descalzo, Water Quality Specialist
Candice K. Lee, Esq.
Norman A. Dupont, Esq.



OFFICE OF THE CITY ATTORNEY

CITY OF CULVER CITY

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9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

CAROL A. SCHWAB

City Attorney

Mr. Sam Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Mr. Ivar Ridgeway

Dear Mr. Unger:

**CERTIFICATION BY LEGAL COUNSEL FOR THE CITY OF CULVER CITY CONFIRMING LEGAL
AUTHORITY TO IMPLEMENT THE PROVISIONS OF THE MUNICIPAL STORMWATER PERMIT**

I write pursuant to Part VI(A)(2)(b) of Order No. R4-2012-0175, otherwise known as the Municipal Separate Stormwater Sewer System (MS4) Permit (the "Order"). Part VI(A)(2)(b) of the Permit provides:

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

The Office of the City Attorney of the City of Culver City (City), serving as its legal counsel, certifies that the City has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order. This correspondence addresses all legal authority requirements as listed in the Order. Subsequently, annual certification by our office will be included in the Stormwater Annual Report as required by the Order.

Order Part VI (A)(2)(b)(i) – "Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Below is a list of applicable Culver City Municipal Code (CCMC) provisions that provide the requisite legal authorities:

5.05.005	Title
5.05.010	Findings
5.05.015	Purpose and intent
5.05.020	Definitions
5.05.025	Prohibited activities
5.05.030	Requirements for existing properties; good housekeeping provisions
5.05.035	Requirements for industrial/commercial and construction activities
5.05.040	Standard Urban Stormwater Mitigation Plan (SUSMP) requirements for new development and redevelopment projects
5.05.045	Enforcement
5.05.050	Fees

In addition, statewide regulations provide further legal authority with respect to intergovernmental authorities, specifically:

California Government Code §6502
California Government Code §23004

Relationship of Applicable Ordinances and Other Legal Authorities to the Requirements of 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

The table below indicates the basic relationship between the “Legal Authority” requirements listed in Section VI(A)(2)(b) of the Order and the existing ordinances and statutes that provide this legal authority.

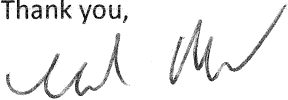
Legal Authority Required by Permit	City/State Legal Provisions
Part VI(A)(2)(i) Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under a NPDES permit, as well as to those sites that do not have coverage under a NPDES permit.	5.05.035 5.05.025(D) 5.05.040
Part VI(A)(2)(ii) Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	5.05.025 (A)(1)
Part VI(A)(2)(iii)	5.05.025 (A)(1)

Prohibit and eliminate illicit discharges and illicit connections to the MS4.	
Part VI(A)(2)(iv) Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	5.05.025 (A)(1)
Part VI(A)(2)(v) Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).	5.05.025 (F) 5.05.045
Part VI(A)(2)(vi) Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	5.05.045
Part VI(A)(2)(vii) Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.	CA Government Code §6502 CA Government Code §23004
Part VI(A)(2)(viii) Control of the contribution of pollutants from one portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	CA Government Code §6502 CA Government Code §23004
Part VI(A)(2)(ix) Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	5.05.045 (C)
Part VI(A)(2)(x) Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	5.05.040
Part VI(A)(2)(xi) Require that structural BMPs are properly operated and maintained.	5.05.040 (G) & (H)

Part VI(A)(2)(xii) Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	5.05.040 (G) & (H)
Part VI(A)(b)(ii) Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.	5.05.045 (E) Enforcement actions can be completed administratively

If needed, please contact Kaden Young at (310) 253-6445 for further information.

Thank you,



Roland Miranda
Deputy City Attorney



Office of the City Attorney
City Hall
1685 Main Street
Room 310
Santa Monica
CA 90407-2200

Marsha Jones Moutrie
City Attorney

December 23, 2014

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013-1105

Re: *City of Santa Monica's Statement of Legal Authority*

Dear Mr. Unger:

This letter is provided as the City of Santa Monica's Statement of Legal Authority required with its Annual Report pursuant to Part VI.A.2.b of the California Regional Water Quality Control Board, Los Angeles Region, Order Number R4-2012-0175 ("Order") for NPDES Permit Number CA2004001. The City has all of the necessary legal authority to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order during the reporting period of July 1, 2013 through June 30, 2014, as permitted by law. In accordance with the Order, the citations to the Santa Monica Municipal Code ("SMMC") for each of the requirements of Part VI.A.2.a are as follows:

i. *Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

ii. *Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

iii. *Prohibit and eliminate illicit discharges and illicit connections to the MS4.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter, Chapter 7.10, Sections 7.10.010 through 7.10.080.

December 23, 2014

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iv. *Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

v. *Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter, Chapter 7.10, Sections 7.10.010 through 7.10.080.

vi. *Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.*

SMMC Chapter 5.20, including Sections 5.20.430 (Inspections and sampling), 5.20.330 (Monitoring facilities), 5.20.450 (Search warrants), and 5.20.500 (Notice of Violation); and SMMC Chapter 7.10, including 7.10.070 (Enforcement and penalties).

vii. *Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.*

See generally, SMMC Chapter 5.20 and Chapter 7.10.

viii. *Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.*

See generally, SMMC Chapter 5.20 and Chapter 7.10.

ix. *Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.*

SMMC Chapter 5.20, including Sections 5.20.430 (Inspections and sampling), 5.20.330 (Monitoring facilities), 5.20.450 (Search warrants), and 5.20.500 (Notice of Violation); and SMMC Chapter 7.10, including 7.10.070 (Enforcement and penalties).

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x. *Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

xi. *Require that structural BMPs are properly operated and maintained.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

xii. *Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.*

SMMC Chapter 5.20, Sections 5.20.010 through 5.20.620; and SMMC Chapter 7.10, Sections 7.10.010 through 7.10.080.

In response to Part VI.A.2.b.ii of the Order, the local administrative and legal procedures available to mandate compliance under Chapter 7.10 are set forth in SMMC Section 7.10.070 (Enforcement and penalties) and Section 7.10.080 (Additional best management practice requirements), and under Chapter 5.20 are set forth in Sections 5.20.500 (Notice of Violation), 5.20.510 (Consent Orders), 5.20.520 (Show Cause Hearing), 5.20.530 (Compliance Orders), 5.20.540 (Cease and Desist Orders), 5.20.550 (Liability for Costs of Correction Arising From Unlawful Discharge), 5.20.560 (Industrial Wastewater Permit Suspension or Revocation Order), 5.20.570 (Disconnection of Nonpermitted Violators), 5.20.580 (Additional Emergency Remedial Measures), 5.20.590 (Injunctive Relief), 5.20.600 (Civil Liability), 5.20.610 (Criminal Prosecution), and 5.20.620 (Water Supply Severance). Enforcement actions are possible administratively and through the judicial system.

Please do not hesitate to contact me if you have any questions.

Sincerely,


MARSHA JONES MOUTRIE
City Attorney

MJM/bcm

JENKINS & HOGIN, LLP
A LAW PARTNERSHIP

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WRITER'S EMAIL ADDRESS:
MJENKINS@LOCALGOVLAW.COM

December 08, 2014

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-1105

RE: Legal Authority Certification for the City of West Hollywood to Implement and Enforce
the Requirements of LARWQCB Order R4-2012-0175

Dear Mr. Unger:

The City of West Hollywood submits this statement in its capacity as a co-permittee under LARWQCB Order R4-2012-0175 (NPDES No. CAS004001) (the "MS4 Permit"), in accordance with Part VI.A.2 of the Order.

I am the City Attorney of the City of West Hollywood, California. In that capacity, I state that it is my opinion that the City has adequate legal authority to implement and enforce the requirements in the MS4 Permit, consistent with the requirements set forth in the regulations implementing the Clean Water Act, 40 CFR § 122.26(d)(2)(i)(A-F), and to the extent permitted by state and federal law and subject to the limitations on municipal action under the California and United States Constitutions.

The primary source of the City's authority is Article 11, § 7 of the California Constitution. The City also has authority under § 13002 of the California Water Code to adopt and enforce ordinances conditioning, restricting and limiting activities which might degrade the quality of waters of the State. Pursuant to Article 11, § 7 of the California Constitution and § 13002 of the California Water Code, the City adopted Chapter 15.56 of the West Hollywood Municipal Code ("WHMC"), which contains the City's regulations enabling it to impose the legal requirements of the MS4 Permit (see attached analysis of legal authority). Thus, the City has the legal authority as required under Part VI.A.2 of the MS4 Permit.

Article 11, § 7 also provides the City the authority to require the use of control measures to prevent or reduce the discharge of pollutants and ensure that such control measures are properly

JENKINS & HOGIN, LLP

December 8, 2014

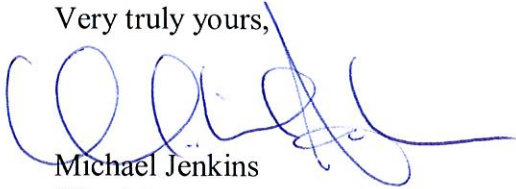
Page 2

operated and maintained. The City's environmental requirements are also implemented in part through the application of the California Environmental Quality Act ("CEQA") process to proposed projects, as enforceable mitigation measures. The City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.

Pursuant to WHMC Chapters 1.08 General Penalty Provisions and Chapter 15.56 Storm Water Management and Urban Runoff Control, the City's regulations may be enforced administratively, civilly and criminally. The WHMC also provides various procedures to modify and/or revoke city-issued permits for unlawful and/or environmentally disruptive activity.

Consequently, it is my opinion that the City has adequate legal authority to implement and enforce the requirements in the MS4 Permit. Please do not hesitate to contact me should you have any questions or need any additional information

Very truly yours,

A handwritten signature in blue ink, appearing to read "Michael Jenkins", with a long horizontal flourish extending to the right.

Michael Jenkins
City Attorney

Enclosure

JENKINS & HOGIN, LLP

December 8, 2014

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West Hollywood Statement of Legal Authority

A. The following list shows the relationship of the West Hollywood Municipal Code and other legal authorities to the MS4 permit requirements under Part VI.A.2 of the Permit:

- i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.

WHMC15.56.060 Prohibited Activities; WHMC15.56.090 Requirements for Industrial/Commercial and Construction Activities

- ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.

WHMC15.56.060 Prohibited Activities

- iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.

WHMC15.56.060 Prohibited Activities

- iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.

WHMC15.56.060 Prohibited Activities; WHMC15.56.080 Good Housekeeping Provisions; 15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.095 Standard Urban Storm Water Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects

- v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).

WHMC15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; 15.56.100 Enforcement; WHMC Chapter 1.08

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General Penalty Provisions

- vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.

WHMC15.56.100 Enforcement; WHMC Chapters 1.08 General Penalty Provisions

- vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.

In addition to the provisions of WHMC Chapter 15.56, which control the contribution of pollutants, the City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.

- viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.

In addition to the provisions of WHMC Chapter 15.56, which control the contribution of pollutants, the City, as a municipal corporation, has authority to enter into contracts that enable it to carry out its necessary functions, including the power to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.

- ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.

WHMC15.56.100.H Enforcement

- x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.

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Article 11, § 7 of the California Constitution; California Public Resources Code § 21000 et seq. (CEQA); WHMC15.56.080 Good Housekeeping Provisions, WHMC15.56.090 Requirements for Industrial/Commercial and Construction Activities; WHMC 15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; WHMC Title 17 Zoning

- xi. Require that structural BMPs are properly operated and maintained.

Article 11, § 7 of the California Constitution; California Public Resources Code § 21000 et seq. (CEQA); WHMC15.56.080 Good Housekeeping Provisions, WHMC15.56.090 Requirements for Industrial/Commercial and Construction Activities; 15.56.100 Standard Urban Stormwater Mitigation Plan (SUSMP) Requirements for New Development and Redevelopment Projects; WHMC Title 17 Zoning

- xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

California Public Resources Code § 21000 et seq. (CEQA); WHMC15.56.100 Enforcement

B. Procedures available to mandate compliance with applicable municipal ordinances under WHMC Chapters 1.08 General Penalty Provisions and Chapter 15.56 Stormwater and Urban Runoff Pollution Control

1. Criminal Citation (judicial)
2. Administrative Citation (administrative)
3. Administrative Cease and Desist Order (administrative)
4. Civil Nuisance Abatement (judicial)
5. Civil Injunction (judicial)
6. Permit Revocation/Modification (administrative)
7. All other criminal and civil remedies available by law

DRAFT

Appendix 3.A

Detailed Description of Water Quality Priorities

DRAFT

The identification of water quality priorities is an important first step in the EWMP process. The water quality priorities provide the basis for prioritizing implementation and monitoring activities within the EWMP and CIMP and selection and scheduling of BMPs in the RAA. The identification of water quality priorities is required in Section VI.C.5.a of the Permit as part of the development of an EWMP. The Permit defines three categories of WBPCs to support the development of priorities (Table 1). The Permit establishes a four-step process that leads to prioritization and sequencing of the water quality issues within each watershed, including:

- **Step 1:** Water quality characterization (VI.C.5.a.i, pg. 58) based on available monitoring data, TMDLs, 303(d) lists, stormwater annual reports, *etc.*,
- **Step 2:** Water body-pollutant classification (VI.C.5.a.ii, pg. 59), to identify water body-pollutant combinations that fall into three Permit defined categories,
- **Step 3:** Source assessment (VI.C.5.a.iii, pg. 59) for the water body-pollutant combinations in the three categories, and
- **Step 4:** Prioritization of the water body-pollutant combinations (VI.C.5.a.iv, pg. 60).

Table 1. Water Body-Pollutant Classification Categories (Permit Section IV.C.5.a.ii)

Category	Water Body-Pollutant Combinations (WBPCs) Included
1 Highest Priority	WBPCs for which TMDL Water Quality Based Effluent Limits (WQBELs) and/or Receiving Water Limitations (RWLs) are established in Part VI.E and Attachments L and O of the MS4 Permit.
2 High Priority	WBPCs for which data indicate water quality impairment in the receiving water according to the State's Listing Policy, regardless of whether the pollutant is currently on the 303(d) List and for which the MS4 discharges may be causing or contributing.
3 Medium Priority	WBPCs for which there are insufficient data to indicate impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in the MS4 Permit and for which MS4 discharges may be causing or contributing to the exceedance.

Water Quality Characterization (Step 1)

As noted in Section 1, the first step in developing an EWMP is to develop water quality priorities. These priorities were based on a comprehensive characterization of water quality impairments to develop a strategy that systematically addresses pollutant reduction in accordance with previous commitments, such as those established by TMDL compliance schedules, and implementation plans. To conduct the water quality characterization¹, data were obtained from numerous sources. A data request was submitted to the BCWMG to gather information necessary to meet the water quality characterization and source assessment requirements outlined in the Permit (pages 58 and 59). The data requested to support the water quality characterization included:

- Monitoring programs results, including but not limited to TMDL compliance monitoring and receiving water monitoring,
- Findings from the Permittees' Illicit Connections and Illicit Discharge Eliminations, Industrial/Commercial Facilities, Development Construction, and Public Agency Activities Programs,

¹ Appendices 3.A and 3.B provide more detailed descriptions of the results of the characterization.

- TMDL source investigations, and
- Any other pertinent data, information, or studies related to constituent sources and conditions that could contribute to identification of the highest water quality priorities.

Monitoring data collected within the BCWMA were received from the following sources:

- Los Angeles Department of Public Works (LACDPW) provided long-term monitoring data from the Ballona Creek Mass Emission station S01 and temporary receiving water sites in Centinela Creek (TS-07), Sepulveda Channel (TS-08), Benedict Canyon (TS-09) and the following drains Adams Drain (TS-10), Fairfax Drain (TS-11), and Cochran Drain (TS-12),
- TMDL Coordinated Monitoring Program data funded by the BCWMA and provided by the City of Los Angeles for the Ballona Creek Metals, Toxics, and Bacteria TMDLs, and
- City of Los Angeles Status and Trends program.

Over 55,000 data records were compiled and reviewed as part of the data analysis. Figure 1 presents the site locations for the monitoring data received and used for the water quality characterization process.

Characterization of Receiving Water Quality

Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of receiving water quality. Appendix 3.B presents additional details on the data analysis approach and results. Data were compiled to identify constituents exceeding applicable water quality objectives. Applicable water quality objectives were obtained from the California Toxics Rule (CTR), the Basin Plan, and relevant TMDLs. Applicable water quality objectives from the CTR and Basin Plan were selected based on the beneficial uses identified in the Basin Plan (summarized in Appendix 3.B).

Generally, the water quality objectives utilized included those established for the protection of aquatic life, contact recreation and human health related to the consumption of organisms. Bed and suspended sediment quality data were compared to TMDL targets. Given the significant number of water quality constituents and corresponding water quality objectives the following steps were taken to identify WBPCs:

- The first step in the analysis was to eliminate lower priority constituents that were sampled for but were never detected in any water body within the EWMP area and therefore would not fall into one of the three Permit categories (see Table 1). A list of these constituents is presented in Appendix 3.B - Attachment 1.
- Next, constituents that were detected, but the sample results never exceeded a corresponding water quality objective and therefore would not fall into one of the three Permit categories were identified. A list of these constituents is presented in Appendix 3.B – Attachment 2.

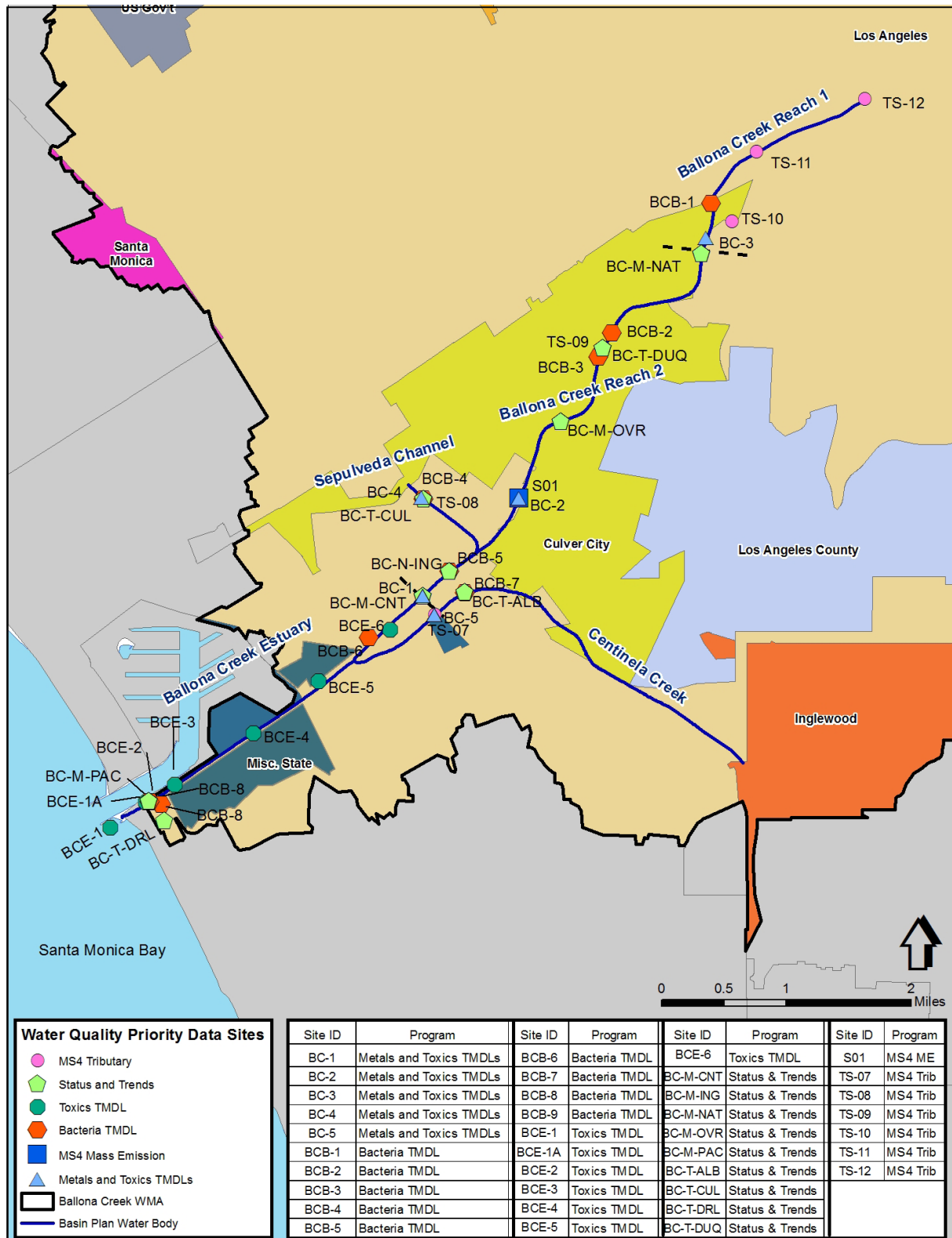


Figure 1. Monitoring Site Locations for Data Utilized in the Water Quality Priorities Process

- All other constituents (*i.e.*, all constituents detected and with sample results that had at least one result greater than an applicable water quality objective) were subject to further analysis. A list of these constituents is presented in Appendix 3.B– Attachment 3.

Characterization of Discharge Quality

Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include a characterization of stormwater and non-stormwater discharges from the MS4. A characterization was conducted on stormwater and non-stormwater discharges from the MS4 associated with constituents identified in a TMDL, a 303(d) listing, or through the receiving water data analysis described above. The following sources of discharge characterization data were reviewed and are summarized in Appendix 3.C:

- TMDL Staff Reports for TMDLs identified in Appendix 3.C.
- Data collected during a June 2012 bacteria snapshot event conducted along Ballona Creek and Sepulveda Channel to document the locations and bacteriological water quality of dry weather discharges.
- Data collected as part of the 2007 Southern California Coastal Water Research Project (SCCWRP) Technical Report 510 titled “Sources, patterns and mechanisms of stormwater pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA.”
- Land Use data collected as part of previous MS4 Permit monitoring and presented in the 2000 report titled “Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report.”

Water Body Pollutant Classification (Step 2)

Based on available information and data analysis, WBPCs were classified in one of the three Permit categories described in Table 1. To further support development of the EWMP, the three Permit categories were further subdivided into subcategories (described in Table 2) and each WBPC was assigned to an appropriate subcategory. **Error! Reference source not found.** presents the BCWMG WBPCs by subcategory. Summary tables presenting the data analysis to support the placement of WBPCs into the various subcategories are presented in Attachment 3 of Appendix 3.B.

Source Assessment (Step 3)

Following the water body-pollutant classification, the next step in the prioritization process is to conduct a source assessment. The Permit requires that a source assessment be conducted to identify potential sources within the watershed for the WBPCs in Categories 1-3, utilizing existing information.

The intent of the source assessment is to identify potential sources within the watershed for the WBPCs in Categories 1-3 and to support prioritization and sequencing of management actions. Pollutant exceedances may come from point or non-point sources, described below. Often, however, non-point source discharges may flow to the MS4 and thus become associated with the MS4 and subject to the MS4 Permit requirements.

Table 2. Details for Water Body-Pollutant Classification Subcategories

Category	Water Body-Pollutant Combinations (WBPCs)	Description
1	Category 1A: WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years.	WBPCs with TMDLs with past due or current Permit term interim and/or final limits. These pollutants are the highest priority for the current Permit term.
	Category 1B: WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years.	The Permit does not require the prioritization of TMDL interim and/or final deadlines outside of the Permit term or USEPA TMDLs, which do not have implementation schedules. To ensure EWMPs consider long term planning requirements and utilize the available compliance mechanisms, these WBPCs should be considered during BMP planning and scheduling, and during CIMP development.
	Category 1C: WBPCs addressed in USEPA TMDL without an LARWQCB adopted Implementation Plan.	
	Category 1D: WBPCs with past due or current Permit term TMDL deadlines but have there have been no exceedances in the past 5 years.	WBPCs where specific actions may end up not being identified because recent exceedances have not been observed and specific actions may not be necessary. The CIMP should address these WBPCs to support future re-prioritization.
2	Category 2A: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years.	WBPCs with confirmed impairment or exceedances of RWLs. WBPCs in a similar class ¹ as those with TMDLs are identified. WBPCs currently on the 303(d) List are differentiated from those that are not to support utilization of EWMP compliance mechanisms.
	Category 2B: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a “pollutant” ² (e.g., toxicity).	WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a “pollutant” linked to the impairment and re-prioritization in the future.
	Category 2C: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but there have been no exceedances in the past 5 years.	WBPCs where specific actions for implementation may end up not being identified because recent exceedances have not been observed (and thus specific BMPs may not be necessary.) Pollutants that are in a similar class ¹ as those with TMDLs are identified. Either routine monitoring or special studies identified in the CIMP should ensure these WBPCs are addressed to support re-prioritization in the future.
3	Category 3A: All other WBPCs that have exceeded in the past 5 years.	Pollutants that are in a similar class ¹ as those with TMDLs are identified.
	Category 3B: All other WBPCs that are not a “pollutant” ² (e.g., toxicity).	WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a “pollutant” linked to the impairment and re-prioritization in the future.
	Category 3C: All other WBPCs that have exceeded in the past 10 years, but not in past 5 years.	Pollutants that are in a similar class ¹ as those with TMDLs are identified.

¹ Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the EWMP for the TMDL. (Permit pg. 49, footnote 21).

² While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor

Table 3. Summary of Ballona Creek Water Body-Pollutant Categories

Constituents	Ballona Creek				Centinela Creek	Sepulveda Channel	Benedict Channel ¹	Santa Monica Bay
	Estuary	Wetlands	Reach 1	Reach 2				
Category 1A: WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. (I = Interim and F = Final Limits)								
Trash	I/F	I/F	I/F	I/F	I/F	I/F	--	I
Total Coliform, Fecal Coliform, Enterococcus	F (Dry)	--	--	--	--	--	--	F (Dry)
E. coli	--	--	F (Dry)	F (Dry)	F (Dry)	F (Dry)	F (Dry)	--
Copper, Lead, Zinc, Selenium ²	--	--	I (Wet & Dry)/F (Dry)				--	--
Sediment: Cadmium, Copper, Lead, Zinc, Silver	I	--	--	--	--	--	--	--
Sediment: PAHs ² , Chlordane, DDT, PCBs	I	--	--	--	--	--	--	--
Category 1B: WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years. (F = Final Limits)								
Trash	--	--	--	--	--	--	--	F
Copper, Lead, Zinc, Selenium ²	--	F (Wet)				--	--	--
Sediment: Cadmium, Copper, Lead, Zinc, Silver	F	--	--	--	--	--	--	--
Sediment: PAHs ² , Chlordane, DDT, PCBs	F	--	--	--	--	--	--	--
Total Coliform, Fecal Coliform, Enterococcus	F (Wet)	--	--	--	--	--	--	F (Wet)
E. coli	--	--	F (Wet)	F (Wet)	F (Wet)	F (Wet)	F (Wet)	--
Category 1C: WBPCs addressed in USEPA TMDL without a Regional Board adopted Implementation Plan. (WLA = Wasteload Allocation in USEPA TMDL)								
DDT (sediment)	--	--	--	--	--	--	--	WLA
PCBs (sediment)	--	--	--	--	--	--	--	WLA
Sediment	--	WLA	--	--	--	--	--	--
Category 1D: WBPCs with past due or current Permit term TMDL deadlines but have not exceeded in past 5 years.								
None	--	--	--	--	--	--	--	--
Category 2A: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years.								
Shellfish Harvesting Advisory	303(d)	--	--	--	--	--	--	--
Cyanide	--	--	--	Delist	--	--	--	--
Copper (dissolved and total)	Dry	--	--	--	--	--	--	--
Mercury (total)	--	--	--	Dry	--	--	--	--
4,4'- Dichlorodiphenyldichloroethylene (4,4'-DDE)	--	--	--	--	Wet	--	--	--
Benzo(a)anthracene	--	--	--	Wet	--	--	--	--
Dibenzo(a,h)anthracene	Dry	--	--	--	--	--	--	--

Constituents	Ballona Creek				Centinela Creek	Sepulveda Channel	Benedict Channel ¹	Santa Monica Bay
	Estuary	Wetlands	Reach 1	Reach 2				
Indeno(1,2,3-cd)pyrene	Dry	--	--	--	--	--	--	--
Category 2B: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a “pollutant” ³ (i.e., toxicity).								
pH	--	--	--	Dry	--	Dry	--	--
Category 2C: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but have not exceeded in past 5 years.								
Ammonia	--	--	--	--	--	Dry (Delist)	--	--
Copper (dissolved and total)	Wet (NS)	--	--	--	--	--	--	--
Lead (dissolved and total)	Dry	--	--	--	--	--	--	--
Mercury Total	Wet (NS)/Dry (NS)	--	Wet (NS)/Dry (NS)	Wet	--	--	--	--
Nickel (dissolved and total)	Dry (NS)	--	--	--	--	--	--	--
Silver (dissolved and total)	--	--	Wet	--	--	--	--	--
Zinc (dissolved and total)	Wet (NS)	--	--	--	--	--	--	--
Category 3A: All other WBPCs with exceedances in the past 5 years.								
Ammonia-N	--	--	--	Dry	--	--	--	--
Silver (total)	--	--	--	--	Wet	--	--	--
4,4'-DDE	--	--	--	Wet	--	--	--	--
4,4'-DDT	--	--	--	--	Wet	--	--	--
3,4 Benzofluoranthene	--	--	--	Wet	--	--	--	--
alpha-chlordane	--	--	--	Wet	--	--	--	--
gamma-chlordane	--	--	--	Wet	--	--	--	--
Benzo(a)anthracene	--	--	--	--	Wet	--	--	--
Benzo(a)pyrene	--	--	--	Wet	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	Wet	--	--	--
Bis(2-Ethylhexyl) phthalate	--	--	--	Wet	--	--	--	--
Chrysene	--	--	--	Wet	Wet	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	Wet	Wet	--	--	--

Constituents	Ballona Creek				Centinela Creek	Sepulveda Channel	Benedict Channel ¹	Santa Monica Bay
	Estuary	Wetlands	Reach 1	Reach 2				
Category 3B: All other WBPCs that are not a “pollutant” ³ (i.e., toxicity).								
Dissolved Oxygen	--	--	--	Wet	--	--	--	--
pH	--	--	--	Wet	Wet/Dry	--	--	--
Category 3C: All other WBPCs that have exceeded in the past ten years, but not in past five years.								
Bis(2-Ethylhexyl) phthalate	--	--	--	Dry	Wet (NS)	Wet (NS)	--	--
Diazinon	--	--	--	Wet	--	Wet (NS)	--	--
Cadmium (total)	--	--	Wet	Wet	Wet	--	--	--
Cyanide (total)	--	--	--	--	--	Wet (NS)	--	--
Silver (dissolved and total)	Wet (NS)	--	--	Wet	--	--	--	--
Zinc (total)	Dry (NS)	--	--	--	--	--	--	--

¹ Note that although Benedict Canyon Channel is identified in TMDLs as a tributary to Ballona Creek, it is a closed channel that daylights where the channel meets Ballona Creek and is not identified in the Basin Plan as a waterbody in the watershed. As such, it is not considered a tributary for the purposes other than addressing the bacteria TMDL for the watershed.

² The BC Toxics and Metals TMDLs were amended on December 5, 2013 and WLAs associated with these constituents were removed. Associated WQBELs would be expected to be removed when the Permit is updated to incorporate these two TMDLs once they become effective.

³ While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.

Note that unless explicitly stated as sediment, constituents are associated with the water column.

I/F = Denotes where the Permit includes interim (I) and/or final (F) effluent and/or RWLs.

NS = Not sampled

303(d) = WBPC on the 2010 303(d) List where the listing was confirmed during data analysis.

Delist = WBPC on the 2010 303(d) List that could now be delisted.

Permit Requirements

The specific requirements in the Permit for the source assessment are as follows (per section VI.C.5.a.iii, page 59):

“(1) Permittees shall identify known and suspected stormwater and non-stormwater pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the water quality priorities. The identification of known and suspected sources of the highest water quality priorities shall consider the following:

- (a) Review of available data, including but not limited to:
 - (i) Findings from the Permittees’ Illicit Connections and Illicit Discharge Elimination Programs;
 - (ii) Findings from the Permittees’ Industrial/Commercial Facilities Programs;
 - (iii) Findings from the Permittees’ Development Construction Programs;
 - (iv) Findings from the Permittees’ Public Agency Activities Programs;
 - (v) TMDL source investigations;
 - (vi) Watershed model results;
 - (vii) Findings from the Permittees’ monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and
 - (viii) Any other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities.
- (b) Locations of the Permittees’ MS4s, including, at a minimum, all MS4 major outfalls and major structural controls for stormwater and non-stormwater that discharge to receiving waters.
- (c) Other known and suspected sources of pollutants in non-stormwater or stormwater discharges from the MS4 to receiving waters within the watershed.”

The findings from items VI.C.5.a.iii (1)(a)(i)-(vii) and item VI.C.5.a.iii (1)(c) that are pertinent to the Category 1, 2 and 3 pollutants identified in **Error! Reference source not found.** are summarized below.

Item VI.C.5.a.iii (1)(b) is provided in the discussion of the MS4 database requirements of Part VII.A of Attachment E (Monitoring and Reporting Program) of the Permit and addressed in the CIMP.

Point Sources

Point sources are discrete conveyances that can carry pollutants to surface waters. Discharges from point sources are regulated by both federal Clean Water Act NPDES permits and California’s Porter-Cologne Water Quality Control Act Waste Discharge Requirements (WDRs). Combined NPDES/WDR permits are issued by the LARWQCB for discharges to surface waters.

Urban runoff to Ballona Creek and Estuary is regulated as a point source discharge under two stormwater permits that cover MS4 discharges. The first is the MS4 Permit applicable to the Permittees developing the EWMP. The second is a separate statewide stormwater permit issued to the California Department of Transportation (Caltrans) (Order No. 2012-0011-DWQ, NPDES No. CAS000003). The other NPDES permits in the watershed include the general construction stormwater permits, general industrial stormwater permits, minor NPDES permits, and general NPDES permits, as listed in

Table 4. A broad assessment of the relative potential for pollutant contribution and runoff condition (wet weather or dry weather) of the discharges typically associated with each of the permit types is also provided in

Table 4.

Appendix 3.D contains detailed descriptions of WBPCs and their common sources, which will provide the basis for source assessment activities in the Ballona Creek watershed.

Non-Point Sources

Pollutants from non-point sources are conveyed to surface waters in a diffuse manner, *i.e.*, not directly from point source conveyances. However, when contaminants from such non-point sources reach the MS4 system, they become regulated through the MS4 point source NPDES permits. In the highly urbanized Ballona Creek watershed, there is not necessarily a clear regulatory distinction between point and non-point sources.

Non-point sources in the Ballona Creek watershed include:

- Runoff from the National and State forests outside of the MS4s into the headwaters of tributaries, and
- Sources that occur within the channels of Ballona Creek and tributaries (“in-channel sources”) such as:
 - Urban runoff,
 - Groundwater discharges,
 - Pet Waste,
 - Sanitary sewer leaks/spills,
 - Illicit/illegal discharges,

- Wildlife and birds, and
- Suspension and/or regrowth of sediment-associated pollutants.

Targeted special studies and planned stormwater program elements, such as an Illicit Connection and Illicit Discharges (IC/ID) program, to identify these sources of pollution within the MS4 drainage area will also be developed and incorporated in the EWMP.

Table 4. NPDES Permits in the Ballona Creek Watershed

Type of NPDES Permit	Number of Permits	Potential for Pollutant Contribution
Los Angeles County Municipal Stormwater	1	High (wet/dry weather)
Caltrans Stormwater	1	High (wet weather)
General Construction Stormwater	17	High (wet weather)
Industrial Stormwater	68	High (wet weather)
Construction Stormwater	47	Medium (wet weather)
Individual NPDES Permits (Minor)	7	Medium (wet/dry weather)
Total	141	

(LACDPW, 2012a)

Prioritization (Step 4)

The Permit outlines a prioritization process that defines how pollutants in the various categories will be considered in scheduling. The factors to consider in the scheduling include the following based on the compliance pathways outlined in the Permit:

- Regional Board adopted TMDLs with past due interim and/or final limits and those with interim and/or final limits within the Permit term (schedule according to TMDL schedule),
- Regional Board adopted TMDLs with interim and/or final limits outside the Permit term (schedule according to TMDL schedule), and
- Other receiving water exceedances.

USEPA TMDLs, 303(d) listings without a TMDL adopted, and other exceedances of RWLs do not contain milestones or an implementation schedule. As such, these water quality priorities do not have a defined schedule for implementation. To address this issue for USEPA TMDLs, Part VI.E.3.c of the Permit (page 145) allows MS4 Permittees to propose a schedule in the EWMP. To address this issue for exceedances of RWLs associated with WBPCs not addressed through a TMDL (i.e., 303(d) listings and other exceedances of RWLs), Part VI.C.2.a of the Permit (page 49) specifies how interim numeric milestones and compliance schedules must be set for each WBPC based on its placement in one of the following groups:

- **Group 1:** Pollutants that are in the same class² as those addressed in a TMDL in the watershed and for which the water body is identified as impaired on the 303(d) List as of December 28, 2012;
- **Group 2:** Pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the 303(d) List as of December 28, 2012; or
- **Group 3:** Pollutants for which there are exceedances of RWLs, but for which the water body is not identified as impaired on the 303(d) List as of December 28, 2012.
- **USEPA TMDL:** Pollutants addressed by USEPA TMDL without an implementation plan/schedule.

As such, the process for setting numeric milestones and compliance schedules for the remaining water quality priorities is dependent upon whether or not the water body is identified as impaired on the 303(d) list as of December 28, 2012 and if the pollutants are considered to be in the same class as those pollutants addressed in a TMDL for the watershed. Based on the Permit Group 1 definition, two findings must be made to determine whether or not a pollutant is in the same class as a TMDL pollutant:

- The pollutant must have similar fate and transport mechanisms (e.g., sediment particle associated), and thus, can be addressed via the same types of control measures. These pollutants are in the same “BMP class” as other TMDL pollutants.
- The pollutant is in the same “scheduling class”, that is, it can be addressed within the same timeline already established in an existing TMDL. To be considered in the same scheduling class, the water quality priority must be present in a water body already being addressed by the TMDL or upstream of a water body already being addressed by the TMDL and can be addressed on the same time frame as the TMDL pollutant.

To define whether or not a pollutant can be addressed within the same time frame as a TMDL pollutant, it is necessary to consider whether the reductions that will be achieved by the control measures implemented for the TMDL pollutant are expected to be sufficient to achieve the needed reductions for the other pollutants. The “limiting pollutant” analysis of the RAA (Section 6 of the EWMP) was used to evaluate whether control measures implemented for the Regional Board adopted TMDLs will be sufficient to meet the RWLs for WBPCs that have both the same BMP and scheduling class as the pollutants addressed by each respective Regional Board adopted TMDL. If the limiting pollutant is a TMDL pollutant, then other pollutants in the same class would be expected to be achieved by the final compliance date of the TMDL for the limiting pollutant. If the limiting pollutant is *not* a TMDL pollutant, then the limiting pollutant, and all other pollutants that are more limiting than the TMDL pollutant, do not have the ability to be considered on the same timeframe as those addressed in a TMDL.

In order to be in the same class as a TMDL pollutant, the WBPC must be in both the same “BMP class” and the same “scheduling class” as the TMDL pollutant. An evaluation of whether or not the WBPCs are in the same class as pollutants addressed in an existing TMDL is presented in Table 5. All WBPCs classified as Category 1C, 2, and 3 are captured in Table 5; except for WBPCs for which the MS4 has been

² As defined in Part VI.C.2.a.i of the Permit (page 49), “Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the Watershed Management Program for the TMDL.” Due to the need to define the control measures and timelines for addressing the various pollutants per the permit requirements, “classes” are preliminary in nature and may be refined as part of EWMP development.

determined to not be a source that may be causing or contributing to observed exceedances or WBPCs are reflective of a condition of pollution (not necessarily a result of MS4 discharge). Additionally, given that Part VI.E.3.c of the Permit (page 145) specifies how interim numeric milestones and compliance schedules must be set for USEPA TMDL WBPCs, USEPA TMDL WBPCs are separately classified.

DRAFT

Table 5. Initial Classification for 303(d) Listings and Other Exceedances of RWLs Applicable to the BCWMG (RB = Regional Board)

Constituent	Water Body	Category	Relevant RB TMDL	RB TMDL in Watershed with Same BMP Class ¹ ?	RB TMDL in Watershed with Same Scheduling Class?	Classification
Shellfish Harvesting Advisory	Estuary	2A	BC Bacteria TMDL	Yes	Yes	Group 1
Cyanide	Reach 2	2A	Amended BC Metals TMDL	Yes	Yes	Group 1
Ammonia	Sepulveda Channel	2C	None	No	No	Group 2
Mercury (total)	Estuary	2C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Reach 2	2A (Dry)/ 2C (Wet)				
	Reach 1	2C				
Nickel	Estuary	2C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
Silver	Reach 2	3C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Reach 1	2C				
	Centinela Creek	3A				
Cadmium (total)	Reach 2	3C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Reach 1	3C				
	Centinela Creek	3C				
4,4'-DDE	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Centinela Creek	2A				
Benzo(a)anthracene	Reach 2	2A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Centinela Creek	3A				
Dibenzo(a,h) anthracene	Estuary	2A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3

Constituent	Water Body	Category	Relevant RB TMDL	RB TMDL in Watershed with Same BMP Class ¹ ?	RB TMDL in Watershed with Same Scheduling Class?	Classification
Indeno(1,2,3-cd)pyrene	Estuary	2A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Reach 2	3A				
	Centinela Creek	3A				
4,4'-DDT	Centinela Creek	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
3,4 Benzofluoranthene	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
alpha-chlordane	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
gamma-chlordane	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
Benzo(a)pyrene	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
Benzo(k) fluoranthene	Centinela Creek	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
Bis(2-Ethylhexyl) phthalate	Reach 2	3C (Dry)/ 3A (Wet)	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Centinela Creek	3C				
	Sepulveda Channel	3C				
Chrysene	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Centinela Creek	3A				
Diazinon	Reach 2	3C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
	Sepulveda Channel	3C				
Cyanide	Sepulveda Channel	3C	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3
Ammonia	Reach 2	3A	Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012			Group 3

Constituent	Water Body	Category	Relevant RB TMDL	RB TMDL in Watershed with Same BMP Class ¹ ?	RB TMDL in Watershed with Same Scheduling Class?	Classification
DDT (sediment)	Santa Monica Bay	1C	Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan			USEPA TMDL
PCBs (sediment)	Santa Monica Bay	1C	Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan			USEPA TMDL
Sediment	Wetlands	1C	Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan			USEPA TMDL
Copper	Estuary	2A (Dry)/ 2C (Wet)	Being addressed by Regional Board adopted TMDL with Implementation Plan			
Lead	Estuary	2C	Being addressed by Regional Board adopted TMDL with Implementation Plan			
Silver	Estuary	3C	Being addressed by Regional Board adopted TMDL with Implementation Plan			
Zinc	Estuary	3C (Dry)/ 2C (Wet)	Being addressed by Regional Board adopted TMDL with Implementation Plan			
Dissolved Oxygen	Reach 2	3B	Reflective of a condition of pollution, not necessarily a result of MS4 discharge			
pH	Reach 2	2B	Reflective of a condition of pollution, not necessarily a result of MS4 discharge			
	Sepulveda Channel	2B				

¹ Based on fate and transport mechanisms during wet weather.

Approach to Identifying Milestones and Schedules

Based on the information presented in the previous section, the following approach to identifying milestones and schedules for USEPA TMDLs, 303(d) listings without a TMDL, and RWL exceedances was utilized.

1. For USEPA TMDLs, the milestones and schedules are consistent with Regional Board adopted TMDLs for similar pollutants within the Ballona Creek watershed.
2. For Group 1 pollutants, the milestones and schedules are consistent with the TMDL milestones and schedules for the Regional Board adopted TMDL which shares the same class as the Group 1 pollutant.
3. For Group 2 pollutants, the schedule contains annual specific actions or milestones. **Specific actions are based on information generated from the RAA analysis.** Milestones are consistent with the TMDL milestones and schedules for the relevant TMDL.
4. For Group 3 pollutants, **the schedule contains annual specific actions or milestones. Specific actions are based on the information generated from the RAA analysis and assessment of monitoring data.** Milestones are consistent with the TMDL milestones and schedules for the relevant TMDL.

In many instances, the water quality priority analysis has indicated that a compliance schedule is not warranted. As a result, the aforementioned approach may not have been applied to all WBPCs. Additionally, development of milestones is more complex and requires consideration of the Permit compliance mechanisms. This section describes a general approach to setting milestones for all groups and provides details specific to the milestones and scheduling for each group.

General Approach to Setting Milestones

The Permit provides four options for complying with TMDL requirements and RWLs:

1. Monitoring data demonstrating water quality objectives are being met in the receiving waters at the compliance monitoring locations outlined in the CIMP.
2. Monitoring data demonstrates water quality objectives are being met at the outfall monitoring locations specified in the CIMP.
3. Monitoring and screening data demonstrates that no discharges are occurring from MS4 outfalls.
4. For interim TMDL requirements and RWL exceedances, implementing an approved EWMP.

Based on these compliance mechanisms, four different types of milestones were considered as appropriate for the WBPCs. To avoid a situation where other sources could impact the ability of the MS4 to demonstrate compliance (such as in the receiving water) or where water quality outcomes progress either faster or slower than projected by the modeling, demonstration of any of the four different types of milestones will result in compliance. Examples of types of milestones that were considered are shown in

Table 6.

Table 6. Examples of Milestone Types Considered

Compliance Path	Interim Milestone Options	Final Milestone Options
RWL	% reduction in concentrations	Meeting water quality objectives
	% reduction in loads	Demonstration that MS4s not causing or contributing to exceedance
WQBEL	% reduction in concentrations or loads	Meeting required percent reductions from outfalls
	Increased number of outfalls meeting WQBELs	Meeting WQBELs at all monitored outfalls
No discharge	Specified reduction in number of outfalls with discharge	No discharge from screened outfalls
	Reduced amount of flow from outfalls with discharge	
EWMP (BMP-based)	% MS4 area treated	Implementation of EWMP program
	Implementation of specified # of BMPs by certain date	

Detailed Approach to Setting Milestones

Details on the approach and justification for the milestones and schedules developed for USEPA TMDL pollutants and Group 1, 2 and 3 pollutants is provided in the following subsections.

USEPA TMDLs

The implementation actions which will be taken to address the WBPCs included in the Amended BC Toxics TMDL will also address the WBPCs that are addressed by USEPA TMDLs. As a result, the schedule developed for these constituents is consistent with the Amended BC Toxics TMDL with annual milestones based on the RAA analysis and control measure implementation schedule for the Amended BC Toxics TMDL, which already includes interim requirements and numeric milestones and the date(s) for their achievement. The interim and final compliance dates are presented in the following section; however, given that the annual milestones are based on the RAA analysis and control measure implementation schedule for the Regional Board adopted TMDL, the annual milestones are presented in Section X.

The USEPA TMDLs are based on existing conditions/loads. As a result, whether or not the loads calculated at the time of TMDL development are consistent with current conditions may be verified in the future. If the loads calculated at the time of TMDL development underestimate current sediment loads, the RAA analysis will be revised to evaluate whether control measures implemented for the Amended BC Toxics TMDL will be sufficient to meet the grouped WLAs. If control measures implemented for the Amended BC Toxics TMDL will not be sufficient to meet the grouped WLAs, the implementation schedule will be revised to extend beyond the Amended BC Toxics TMDL schedule, and will be developed based on the revised RAA analysis to reflect the additional reductions necessary to meet the grouped WLAs.

Group 1: 303(d) Listed WBPCs in the Same Class as a Regional Board TMDL

For the BCWMA, the Group 1 WBPCs are cyanide in Reach 2 and the shellfish harvesting advisory in the Estuary. The water quality priority analysis indicated that cyanide in Reach 2 could be delisted and is rarely exceeding in the receiving water. Therefore, a schedule was not created because specific implementation actions are not required to address this WBPC.

Regarding the shellfish harvesting advisory in the Estuary, this WBPC is in the same class as the BC Bacteria TMDL; therefore, the BC Bacteria TMDL compliance schedule forms the basis for the shellfish harvesting advisory in the Estuary compliance schedule. However, given that the water quality objective which applies to water bodies designated with the SHELL beneficial use³ is much more stringent than the numeric targets established for the Estuary in the BC Bacteria TMDL⁴, the RAA indicates that the water quality objective which applies to water bodies designated with the SHELL beneficial use will not be achieved during dry and wet weather until the control measures aimed at achieving the BC Bacteria TMDL wet weather milestones are implemented. As a result, the BC Bacteria TMDL wet weather compliance schedule is used as the dry weather and wet weather compliance schedule for the shellfish harvesting advisory in the Estuary WBPC. The WBPCs in Group 1 are summarized in Table 7.

Table 7. 303(d) Listed WBPCs in the Same Class as those Addressed in a Regional Board Adopted TMDL

Constituent	Water Body	Regional Board TMDL in Same Class
Cyanide	Reach 2	Amended BC Metals TMDL (Schedule not required)
Shellfish Harvesting Advisory	Estuary	BC Bacteria TMDL

While the BMP class and Scheduling class of these WBPCs has resulted in the classification of these WBPCs into Group 1, further refinement and analysis through the RAA may result in modifications.

Group 2: 303(d) Listed WBPCs Not in the Same Class as a Regional Board TMDL

The only constituent identified in the initial classification in Group 2 is the ammonia listing in Sepulveda Channel. For this constituent, the water quality priority analysis indicated that this WBPC could be delisted and is rarely exceeding in the receiving water. Therefore, a schedule was not created because specific implementation actions are not required to address this WBPC.

Group 3: Other Receiving Water Limitation Exceedances

The majority of the WBPCs in the BCWMA fall into Group 3. For the WBPCs that are in the same class as a Regional Board adopted TMDL, the limiting pollutant analysis indicates that all WBPCs will be addressed through control measures to implement the Regional Board adopted TMDLs. As a result, a

³ The water quality objective which applies to water bodies designated with the SHELL beneficial use states “the median total coliform concentration through the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.”

⁴ The BC Bacteria TMDL states “The Basin Plan objectives that serve as the numeric targets for this TMDL are:
In Marine Waters Designated for Water Contact Recreation (REC-1)

1. Geometric Mean Limits

- a. Total coliform density shall not exceed 1,000/100 ml.
- b. Fecal coliform density shall not exceed 200/100 ml.
- c. *Enterococcus* density shall not exceed 35/100 ml.

2. Single Sample Limits

- a. Total coliform density shall not exceed 10,000/100 ml.
- b. Fecal coliform density shall not exceed 400/100 ml.
- c. *Enterococcus* density shall not exceed 104/100 ml.
- d. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.”

schedule has been developed for these constituents consistent with the Regional Board adopted TMDLs with annual milestones based on the RAA analysis and control measure implementation schedule for the Regional Board adopted TMDL. The interim and final compliance dates are presented in the following section; however, given that the annual milestones are based on the RAA analysis and control measure implementation schedule for the Regional Board adopted TMDL, the annual milestones are presented in Section X.

For metals for which additional control measures beyond those needed to meet the Amended BC Metals TMDL are required to provide reasonable assurance that RWLs will be met in the Estuary, the schedule extends beyond the Amended BC Metals TMDL schedule and is based on the RAA analysis to reflect the additional reductions necessary to meet the RWLs.

For pollutants which have exceeded RWLs at a very low exceedance frequency over the past ten years throughout the BCWMA, a schedule was not created because specific implementation actions (beyond those already being implemented to achieve compliance with RWLs) are not required to address such low exceedance frequencies. Exceedance frequencies were determined to be very low if per available data, the exceedance frequency was less than what is necessary to make an impairment finding in the receiving water according to the State's Listing Policy.

Proposed Interim Numeric Milestones and Compliance Schedule

Part VI.C.5.c of the Permit discusses the compliance schedule requirements associated with the EWMP. The EWMP implementation schedule was developed based on TMDL milestones (i.e., interim and final numeric limits). Interim and final compliance dates in the Amended BC Metals TMDL, the Amended BC Toxics TMDL, and the BC Bacteria TMDL are the primary drivers for the BCWMA RAA and EWMP implementation schedule. Table 8 presents the compliance schedule for USEPA TMDLs, 303(d) listings, and other RWL exceedances. For simplicity, only the year of each milestone is shown; however, the exact date remains consistent with the milestone dates included in the relevant Regional Board adopted TMDL. The EWMP, including its implementation schedule will be periodically reviewed and updated as part of the adaptive management process; therefore, the schedule identified in Table 8 may be revised in the future. For those pollutants for which no compliance schedule was included,

Table 9 presents the justification for why a compliance schedule is not warranted.

Table 8. Compliance Schedule for Water Quality Priority WBPCs in the EWMP Which Warrant a Compliance Schedule

Constituent	WQP Category and Water Body	Compliance Schedule Source	Weather Condition	Compliance Dates and Compliance Milestones (Bolded numbers indicated milestone deadlines within the current Permit term) ¹										
				2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2025
Mercury (total)	C2: Estuary C2: Reach 2 C2: Reach 1	Amended BC Metals	Dry	50%		75%		100%						
			Wet	25%				50%					100%	
Nickel ²	C2: Estuary	Amended BC Metals	Dry	50%		75%		100%						
Silver	C3: Reach 2 C2: Reach 1 C3: Centinela	Amended BC Metals	Wet	25%				50%					100%	
DDT (sediment)	C1 (EPA TMDL): Santa Monica Bay	Amended BC Toxics	All		25%			50%	75%				100%	
PCBs (sediment)	C1 (EPA TMDL): Santa Monica Bay	Amended BC Toxics	All		25%			25%					50%	100%
Sediment	C1 (EPA TMDL): Wetlands	Amended BC Toxics	All		25%			50%	75%				100%	
4,4'-DDE	C3: Reach 2 C2: Centinela	Amended BC Toxics	Wet		25%			50%	75%				100%	
Benzo(a)anthracene	C2: Reach 2 C3: Centinela	Amended BC Toxics	Wet		25%			50%	75%				100%	
Dibenzo(a,h)anthracene	C2: Estuary	Amended BC Toxics	Dry		25%			50%	75%				100%	
Indeno(1,2,3-cd)pyrene	C2: Estuary C3: Reach 2 C3: Centinela	Amended BC Toxics	All		25%			50%	75%				100%	
Shellfish Harvesting Advisory	C2: Estuary	BC Bacteria	Dry										100%	
			Wet										100%	

¹ The Permit term is assumed to be five years from the Permit effective date or December 27, 2017.

² Note that if additional control measures will need to be implemented to provide reasonable assurance that RWLs will be met in the Ballona Creek Estuary, the schedule will extend beyond the Amended BC Metals TMDL schedule and will be developed based on the RAA analysis to reflect the additional reductions necessary to meet the RWL.

Table 9. Water Quality Priority WBPCs Which Do Not Warrant a Compliance Schedule

Constituent	WQP Category and Water Body	Compliance Schedule Source	Weather Condition	Justification for Why WBPC Does Not Warrant a Compliance Schedule
Cadmium (total)	C3: Reach 2 C3: Reach 1 C3: Centinela	None	Wet	Only 2 of 103 exceedances in last 10 years in Reach 2, 1 of 20 exceedances in last 10 years in Reach 1, and 2 of 38 exceedances in last 10 years in Centinela Creek ¹
4,4'-DDT	C3: Centinela	None	Wet	Only 1 of 27 exceedances in last 10 years in Centinela Creek ¹
3,4 Benzofluoranthene	C3: Reach 2	None	Wet	Only 1 of 59 exceedances in last 10 years in Reach 2 ¹
alpha-chlordane	C3: Reach 2	None	Wet	Only 1 of 57 exceedances in last 10 years in Reach 2 ¹
gamma-chlordane	C3: Reach 2	None	Wet	Only 1 of 57 exceedances in last 10 years in Reach 2 ¹
Benzo(a)pyrene	C3: Reach 2	None	Wet	Only 1 of 66 exceedances in last 10 years in Reach 2 ¹
Benzo(k)fluoranthene	C3: Centinela	None	Wet	Only 1 of 27 exceedances in last 10 years in Centinela Creek ¹
Bis(2-Ethylhexyl) phthalate	C3: Reach 2 C3: Centinela C3: Sepulveda	None	All	Only 5 of 72 exceedances in last 10 years in Reach 2, 1 of 14 exceedances in last 10 years in Centinela Creek, and 1 of 14 exceedances in last 10 years in Sepulveda Channel ¹
Chrysene	C3: Reach 2 C3: Centinela	None	Wet	Only 1 of 66 exceedances in last 10 years in Reach 2 and 1 of 27 exceedances in last 10 years in Centinela Creek ¹
Diazinon	C3: Reach 2 C3: Sepulveda	None	Wet	Only 2 of 61 exceedances in last 10 years in Reach 2 and 1 of 11 exceedances in last 10 years in Sepulveda Channel ¹
Cyanide	C2: Reach 2 C3: Sepulveda	None	All	Meets criteria to de-list for waterbodies on 303(d) list and does not meet criteria to be placed on 303(d) list for waterbodies not on 303(d) list
Ammonia	C3: Reach 2 C2: Sepulveda	None	Dry	Meets criteria to de-list for waterbodies on 303(d) list and does not meet criteria to be placed on 303(d) list for waterbodies not on 303(d) list
Dissolved Oxygen	C3: Reach 2	None	All	Reflective of a condition of pollution, not necessarily a result of MS4 discharge
pH	C2: Reach 2 C2: Sepulveda	None	All	Reflective of a condition of pollution, not necessarily a result of MS4 discharge

¹ As a result, pollutant does not necessitate implementation actions. If exceedances are observed in greater than 10% of samples in the future, a schedule and milestones will be developed.

Appendix 3.B

Supporting Information for the Receiving Water Analysis

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Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of receiving water quality. Data were compiled to identify constituents exceeding applicable water quality objectives. Applicable water quality objectives were obtained from the California Toxics Rule (CTR), Basin Plan, and relevant TMDLs. Applicable water quality objectives from the CTR and Basin Plan were selected based on the beneficial uses identified in the Basin Plan (summarized in Table 10). Generally, the water quality objectives utilized included those established for the protection of aquatic life, contact recreation and human health related to the consumption of organisms. Bed and suspended sediment quality data were compared to TMDL targets. Given the significant number of water quality constituents and corresponding water quality objectives the following steps were taken:

- The first step in the analysis was to develop a list of constituents that were sampled for but were never detected in any water body within the EWMP area and therefore would not fall into one of the three Permit categories (Appendix 3.A). A list of these constituents is presented in Attachment 1.
- Next, constituents that were detected but the sample results never exceeded a corresponding water quality objective and therefore would not fall into one of the three Permit categories were identified. A list of these constituents is presented in Attachment 2.
- All other constituents (*i.e.*, all constituents detected and with sample results that had at least one result greater than an applicable water quality objective) were subject to further analysis. Summary tables are presented in Attachment 3. These tables generally include the following attributes:
 - Applicable water body segments (*i.e.*, tributaries, reaches, etc.)
 - TMDL target or applicable water quality objective (*e.g.*, CTR and/or Basin Plan)
 - Applicable wet or dry weather conditions
 - Date range of data
 - Total number of samples, number of samples exceeding the water quality objectives, percent exceedance frequency, and number of exceedances in the past five years of available data
 - Whether or not the number of exceedances suggested an impairment per the State's 303(d) Listing Policy⁵
 - Average, median, maximum, and minimum of sample results

⁵ 2004 Water Quality Control Policy for Developing California's Clean Water Act Section 303 (d) List.

Table 10. Ballona Creek Watershed Designated Beneficial Uses as Presented in the Los Angeles Region Basin Plan

Water Body	REC1	LREC-1	REC2	HFS	MUN	NAV	COMM	WARM	EST	MAR	WILD	RARE	MIGR	SPWN	SHELL	WET ^b
Ballona Creek Estuary (ends at Centinela Creek) ^{c,w}	E		E			E	E		E	E	E	Ee	Ef	Ef	E	
Ballona Lagoon ^c	E		E			E	E		E	E	E	Ee	Ef	Ef	E	E
Ballona Wetlands ^c	E		E						E		E	Ee	Ef	Ef		E
Del Rey Lagoon ^c	E		E			E	E		E		E	Ee	Ef	Ef		E
Ballona Creek Reach 2 (Estuary to National Blvd.)	Ps,au	E	E	Yav	P*			P			P					
Ballona Creek Reach 1 (above National Blvd.)	Ps,au		E	Yav	P*			P			E					

E: Existing beneficial use

P: Potential beneficial use

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in Coastal Features Table (2-3) or in Wetlands Table (2-4) of the Basin Plan.

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

s: Access prohibited by Los Angeles County Department of Public Works.

w: These areas are engineered channels. All references to Tidal Prisms in Regional Board documents are functionally equivalent to estuaries

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some designations may be considered for exemption at a later date (See pages 2-3, 4 for more details).

au: The REC-1 use designation does not apply to recreational activities associated with the swimmable goal as expressed in the Federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use in the Basin Plan, or the associated bacteriological objectives set to protect those activities. However, water quality objectives set to protect other REC-1 uses associated with the fishable goal as expressed in the Federal Clean Water Act section 1010(a)(2) shall remain in effect for waters where the (au) footnote appears.

av: The High Flow Suspension only applies to water contact recreational activities associated with the swimmable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use, noncontact water recreation involving incidental water contact regulated under the REC-2 use, and the associated bacteriological objectives set to protect those activities. Water quality objectives set to protect (1) other recreational uses associated with the fishable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use and (2) other REC-2 uses (e.g., uses involving the aesthetic aspects of water) shall remain in effect at all times for waters where the (av) footnote appears.

For the analysis presented in Attachment 3, the determination of weather condition was based on the designation provided by the sampling program. If no information was provided by the sampling program, flow records were reviewed. If flow on the sample date exceeded the definition of wet weather of 64 cubic feet per second (cfs) identified in the 2013 Ballona Creek Metals TMDL, it was identified as a wet weather sample.

A large proportion of the data included non-detect values. Using these data to calculate summary statistics requires methods for dealing with the inherent uncertainty in characterizing the true range of water quality conditions. The method used to consider non-detect data results is typically known as regression on order statistics (ROS). Use of the ROS method, when statistical criteria are met, more appropriately estimates actual values than the commonly employed practice of assuming one half the detection limit for non-detect values. Criteria for sufficient data to use the ROS method are: 1) at least 20% and preferably 50% detected data and 2) at least three unique detected values. Instances of insufficient detected data results are noted in the summary tables as <20% detect Attachment 3.

In addition to the results for water data presented in Attachment 3, sediment data for samples collected from bed sediments in the Ballona Creek Estuary and suspended sediments collected in Ballona Creek and Centinela Creek are compared to TMDL targets and summarized in tables presented in Attachment 4.

Summary of Key Findings of Receiving Water Data Analysis

The following provides a summary of key findings from the receiving water data analysis. It is not intended to be a detailed discussion of all the results of the data analysis. Instead, the summary highlights outcomes of the data analysis that may affect the constituents addressed by the EWMP and/or the way the EWMP will approach addressing the constituent. For example, some constituents addressed by the Metals TMDL appear to exceed less frequently than in the past and as such, are discussed in this subsection. Conversely, indicator bacteria continue to exceed on a frequent basis and nothing “new” was learned from the data analysis. As such, indicator bacteria are not discussed in this subsection. The key findings are organized as follows:

- Summary of findings related to the Metals TMDL.
- Identification of constituents that are not currently on the 303(d) List, but appear to meet the listing requirements.
- Identification of constituents that exhibited exceedances of relevant water quality objectives, but do not meet the 303(d) listing requirements.
- Identification of current 303(d) listed constituents not addressed by a TMDL that appear to meet the delisting requirements.

Key Findings Related to the Metals TMDL

Wet weather is the primary condition where exceedances of metals criteria and TMDL targets persist. Over the past five years, copper, lead and zinc exceedances during dry weather are infrequent. As noted in the 2013 Metals TMDL Amendment, selenium does not appear to be an issue during wet or dry weather. The following provides a generalized summary of the key findings from data collected over the past five years (note that percentages are rounded) (see Attachment 3 for detailed summary):

- Dissolved Copper: Consistently exceeds in wet weather (40%-90%) but rarely in dry weather (0%-4%).
- Total Copper: Consistently exceeds in wet weather (>90%), but rarely in dry weather (0%-4%).
- Dissolved Lead: Rarely exceeds during wet or dry weather (0%-2%).
- Total Lead: Consistently exceeds in wet weather (>90%), but rare in dry weather (0%-2%).
- Dissolved Zinc: Consistently exceeds CTR criteria in wet weather (0%-20%), but does not exceed in dry weather.
- Total Zinc: Consistently exceeds in wet weather (>75%), but rare in dry weather (<1%).
- Total Selenium: Only one sample out of 200 exceeded during wet or dry weather.

Constituents Not on the 303(d) List, But Appear to Meet Listing Requirements

The data analysis identified a number of constituents exceeding relevant water quality objectives, at a frequency that appears to meet the 303(d) listing criteria. The following identifies the constituents by waterbody and discusses the frequency of exceedances during relevant conditions (*e.g.*, wet and/or dry weather). Table 11 presents a summary of the information. A more detailed summary of the analysis can be found in the tables presented in Attachment 3.

Table 11. Summary of Key Findings – Constituents Not Currently on the 303(d) List, But Appear to Meet Listing Criteria

Waterbody	Constituent	W/D	% Exceed	% Exceed in Past 5 Years	Source of Water Quality Objective (WQO)
Ballona Creek Estuary	Zinc Dissolved	Wet	13%	NS	CTR Saltwater Acute
	Zinc Total	Wet	19%	NS	CTR Saltwater Acute
	Copper Dissolved	Wet	60%	NS	CTR Saltwater Acute
	Copper Total	Wet	69%	NS	CTR Saltwater Acute
	Copper Dissolved	Dry	48%	6%	CTR Saltwater Chronic
	Copper Total	Dry	52%	6%	CTR Saltwater Chronic
	Lead Dissolved	Dry	18%	0%	CTR Saltwater Chronic
	Lead Total	Dry	21%	0%	CTR Saltwater Chronic
	Nickel Dissolved	Dry	22%	NS	CTR Saltwater Chronic
	Nickel Total	Dry	26%	NS	CTR Saltwater Chronic
	Mercury Total	Wet	29%	NS	CTR HH Organism
	Mercury Total	Dry	23%	NS	CTR HH Organism
	Dibenzo(a,h)anthracene	Dry	13%	13%	CTR HH Organism
	Indeno(1,2,3-cd)pyrene	Dry	13%	13%	CTR HH Organism
Ballona Creek Reach 1	Silver Dissolved	Wet	10%	0%	CTR Freshwater Acute
	Silver Total	Wet	10%	0%	CTR Freshwater Acute
	Mercury Total	Wet	30%	NS	CTR HH Organism
	Mercury Total	Dry	27%	NS	CTR HH Organism
	Benzo(a)anthracene	Wet	8%	10%	CTR HH Organism

Waterbody	Constituent	W/D	% Exceed	% Exceed in Past 5 Years	Source of Water Quality Objective (WQO)
Ballona Creek Reach 2	Mercury Total	Wet	10%	0%	CTR HH Organism
	Mercury Total	Dry	22%	13%	CTR HH Organism
	pH	Dry	24%	29%	BP Minimum/Maximum
Centinela Creek	4,4'-DDE	Wet	11%	19%	CTR HH Organism
Sepulveda Channel	pH	Dry	80%	0%	BP Minimum/Maximum

BP = Basin Plan

CTR = California Toxics Rule

NS = Not Sampled

HH Organism = Human Health Organisms only criteria

Constituents Exceeding Objectives, But Do Not Meet the Listing Requirements

The data analysis identified a number of constituents as exceeding relevant water quality objectives, but not at a frequency that meets the 303(d) listing criteria. Table 12 identifies the constituents by waterbody and includes the frequency of exceedances during relevant conditions (*e.g.*, wet and/or dry weather). A more detailed summary of the analysis can be found in the tables presented in Attachment 3.

Table 12. Summary of Key Findings – Constituents Exceeding Objectives, But That Do Not Appear to Meet Listing Criteria

Waterbody	Constituent	W/D	% Exceed	% Exceed in Past 5 Years	Source of Water Quality Objective (WQO)
Ballona Creek Estuary	Silver Dissolved	Wet	6%	NS	CTR Saltwater Acute
	Silver Total	Wet	6%	NS	CTR Saltwater Acute
	Zinc Total	Dry	2%	0%	CTR Saltwater Chronic
Ballona Creek Reach 1	Cadmium Total	Wet	5%	0%	CTR Freshwater Acute
Ballona Creek Reach 2	3,4 Benzofluoranthene	Wet	1.7%	2.6%	CTR HH Organism
	4,4'-DDE	Wet	1.8%	2.6%	CTR HH Organism
	Ammonia-N	Dry	3.7%	6.7%	BP 30-day Acute early life stage fish present
	Benzo(a)pyrene	Wet	1.5%	2.6%	CTR HH Organism
	Bis(2-Ethylhexyl) phthalate	Wet	6.5%	5.3%	CTR HH Organism
	Bis(2-Ethylhexyl) phthalate	Dry	7.7%	0%	CTR HH Organism
	Cadmium Total	Wet	1.9%	0%	CTR Freshwater Acute
	Chrysene	Wet	1.5%	2.6%	CTR HH Organism
	Indeno(1,2,3-cd)pyrene	Wet	1.5%	2.6%	CTR HH Organism
	Silver Dissolved	Wet	1%	0%	CTR Freshwater Acute
	Silver Total	Wet	1.9%	0%	CTR Freshwater Acute
	alpha-chlordane	Wet	1.8%	2.6%	CTR HH Organism
	gamma-chlordane	Wet	1.8%	2.6%	CTR HH Organism
	Diazinon	Wet	3.3%	0%	USEPA Freshwater Acute
	Oxygen Dissolved	Wet	4.7%	0%	BP Single Sample Minimum

Waterbody	Constituent	W/D	% Exceed	% Exceed in Past 5 Years	Source of Water Quality Objective (WQO)
	Cyanide Total	Wet	7.1%	5.3%	CTR Freshwater Acute
		Dry	3.8%	0%	CTR Freshwater Chronic
	pH	Wet	9.5%	15%	BP Minimum/Maximum
Centinela Creek	4,4'-DDT	Wet	3.7%	6%	CTR HH Organism
	Benzo(a)anthracene	Wet	4.5%	6%	CTR HH Organism
	Benzo(k)fluoranthene	Wet	3.7%	6%	CTR HH Organism
	Bis(2-Ethylhexyl) phthalate	Wet	9.1%	9.1%	CTR HH Organism
	Cadmium Total	Wet	5.3%	0%	CTR Freshwater Acute
	Chrysene	Wet	3.7%	6%	CTR HH Organism
	Silver Total	Wet	5.3%	13%	CTR Freshwater Acute
	Indeno(1,2,3-cd)pyrene	Wet	3.7%	6%	CTR HH Organism
	pH	Wet	18.2%	NS	BP Minimum/Maximum
		Dry	33.3%	NS	BP Minimum/Maximum
Benedict Canyon Channel	Bis(2-Ethylhexyl) phthalate	Wet	9.1%	NS	CTR HH Organism
	Diazinon	Wet	9.1%	NS	USEPA Freshwater Acute
	Mercury Total	Wet	6.7%	NS	CTR HH Organism
Sepulveda Channel	Bis(2-Ethylhexyl) phthalate	Wet	9.1%	NS	CTR HH Organism
	Diazinon	Wet	9.1%	NS	USEPA Freshwater Acute
	Cyanide Total	Wet	9.1%	NS	CTR Freshwater Acute

BP = Basin Plan

CTR = California Toxics Rule

NS = Not Sampled

HH Organism = Human Health Organisms only criteria

Identification of Current 303(d) Listed Constituents Not Addressed by a TMDL that Meet the Delisting Requirements

Two of the three 303(d) listings not addressed by an existing TMDL were identified as potentially meeting delisting requirements: ammonia and cyanide.

Cyanide in Ballona Creek was listed based on three of 18 samples exceeding at the LA County mass emission station between October 2000 and April 2003. A review of the past 10 years of data indicates that only five of 82 samples exceed the applicable CTR criteria. For toxicants, the maximum number of exceedances allowed for delisting is shown in Table 4.1 (Page 14) of the Listing Policy and indicates that if the sample size is between 72 and 82 a constituent can be delisted if the number of exceedances is equal to or less than six. A more detailed summary of the analysis can be found in the tables presented in Attachment 3.

Data for ammonia and pH were collected by the Los Angeles Department of Public Works in Sepulveda Channel Channel (Culver Blvd and at Ballona Creek locations) from May 1988 to July 1994. Additional ammonia, pH, and pH, and temperature data were collected by the City of Los Angeles in Sepulveda Channel at Culver Blvd. from May 2009 to October 2009 and by the Regional Board at six stations in Sepulveda Channel in January 2009.

January 2009.

Table 13 presents a summary of the data.

Table 13. Summary of Ammonia Data used for the Delisting Analysis for Sepulveda Canyon Channel

Sampled by	Time Period	# of Samples	# of Exceedances	Delist if the # of exceedances $\leq$ ¹
Historical Data				
Los Angeles County Department of Public Works	05/1988-07/1994	69	7	5
Recent Data				
City of Los Angeles	05/2009-10/2009	22	0	2
Los Angeles Regional Board	01/2009	6	0	
Total (recent data)		28	0	
Total (historical & recent)		97	7	8

¹For toxicants, the maximum number of exceedances allowed for delisting is shown in Table 4.1 (Page 14) of the 303 (d) Listing Policy.

To calculate the number of exceedances presented

Table 13, for each ammonia concentration, each sample result was compared to the applicable 30-day chronic criterion for ammonia (based on Basin Plan ammonia water quality objectives). The chronic-criterion value is calculated for each dataset using applicable pH and temperature data. For the historical data, temperature data were not available. Therefore, temperature was estimated on a monthly basis using recent data and historical temperatures⁶.

The calculated criterion was compared to the corresponding ammonia concentration of the sample. The number of exceedances was then compared to the requirements for delisting presented in Section 4 of the Listing Policy. For toxicants, the maximum number of exceedances allowed for delisting is shown in Table 4.1 (Page 14) of the Listing Policy. As shown

Table 13 above, the total number of exceedances is below the maximum number of exceedances allowed to delist per the Listing Policy. As a result, the available data demonstrates that Sepulveda Channel meets the water quality objectives for ammonia.

⁶ <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2214>

Appendix B Attachment 1

List of Constituents that have not been Detected in Water

Constituents in this attachment were not detected in any available data reviewed.

Ballona Creek Estuary – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limits		Units
				Min DL	Max DL	
2,4'-DDD	2/5/2009	5/17/2010	16	0.001	0.003	µg/L
2,4'-DDE	2/5/2009	5/17/2010	16	0.001	0.003	µg/L
2,4'-DDT	2/5/2009	5/17/2010	16	0.003	0.004	µg/L
3,4 Benzofluoranthene	2/5/2009	5/17/2010	16	0.14	0.14	µg/L
4,4'-DDD	2/5/2009	5/17/2010	16	0.001	0.004	µg/L
4,4'-DDE	2/5/2009	5/17/2010	16	0.002	0.004	µg/L
4,4'-DDT	2/5/2009	5/17/2010	16	0.002	0.003	µg/L
Acenaphthene	2/5/2009	5/17/2010	16	0.13	0.13	µg/L
Acenaphthylene	2/5/2009	5/17/2010	16	0.13	0.13	µg/L
alpha-chlordane	2/5/2009	5/17/2010	14	0.001	0.07	µg/L
Anthracene	2/5/2009	5/17/2010	16	0.11	0.11	µg/L
Aroclor 1016	2/5/2009	5/17/2010	6	0.03	0.081	µg/L
Aroclor 1221	2/5/2009	5/17/2010	6	0.02	0.49	µg/L
Aroclor 1232	2/5/2009	5/17/2010	6	0.06	0.1	µg/L
Aroclor 1242	2/5/2009	5/17/2010	6	0.04	0.23	µg/L
Aroclor 1248	2/5/2009	5/17/2010	6	0.04	0.1	µg/L
Aroclor 1254	2/5/2009	5/17/2010	6	0.02	0.04	µg/L
Aroclor 1260	2/5/2009	5/17/2010	6	0.03	0.07	µg/L
Benzo(a)anthracene	2/5/2009	5/17/2010	16	0.14	0.14	µg/L
Benzo(a)pyrene	2/5/2009	5/17/2010	16	0.13	0.13	µg/L
Benzo(k)fluoranthene	2/5/2009	5/17/2010	16	0.11	0.11	µg/L
Chrysene	2/5/2009	5/17/2010	16	0.12	0.12	µg/L
Dieldrin	2/5/2009	5/17/2010	15	0.001	0.005	µg/L
Fluoranthene	2/5/2009	5/17/2010	16	0.02	0.02	µg/L
Fluorene	2/5/2009	5/17/2010	16	0.02	0.02	µg/L
gamma-chlordane	2/5/2009	5/17/2010	14	0.001	0.07	µg/L
Naphthalene	2/5/2009	5/17/2010	16	0.13	0.13	µg/L
Nonachlor, cis-	2/5/2009	5/17/2010	14	0.001	0.09	µg/L
Nonachlor, trans-	2/5/2009	5/17/2010	14	0.001	0.09	µg/L
Oxychlordane	2/5/2009	5/17/2010	14	0.002	0.08	µg/L
PCB 018	2/5/2009	3/9/2010	13	0.002	0.002	µg/L
PCB 028	2/5/2009	3/9/2010	13	0.002	0.002	µg/L
PCB 037	2/5/2009	3/9/2010	13	0.0036	0.0036	µg/L

Ballona Creek Estuary – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limits		Units
				Min DL	Max DL	
PCB 044	2/5/2009	3/9/2010	13	0.0019	0.0019	µg/L
PCB 049	2/5/2009	3/9/2010	13	0.002	0.002	µg/L
PCB 052	2/5/2009	3/9/2010	13	0.0062	0.0062	µg/L
PCB 066	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 070	2/5/2009	3/9/2010	13	0.0013	0.0013	µg/L
PCB 074	2/5/2009	3/9/2010	13	0.00024	0.0024	µg/L
PCB 077	2/5/2009	3/9/2010	13	0.0018	0.0018	µg/L
PCB 081	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 087	2/5/2009	3/9/2010	13	0.0018	0.0018	µg/L
PCB 099	2/5/2009	3/9/2010	13	0.0023	0.0023	µg/L
PCB 101	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 105	2/5/2009	3/9/2010	13	0.0015	0.0015	µg/L
PCB 110	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 114	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 118	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 119	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 123	2/5/2009	3/9/2010	13	0.0015	0.0015	µg/L
PCB 126	2/5/2009	3/9/2010	13	0.0015	0.0015	µg/L
PCB 128	2/5/2009	3/9/2010	13	0.0017	0.0017	µg/L
PCB 138	2/5/2009	3/9/2010	13	0.0012	0.0012	µg/L
PCB 149	2/5/2009	3/9/2010	13	0.0017	0.0017	µg/L
PCB 151	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 153/168	2/5/2009	3/9/2010	13	0.0016	0.0031	µg/L
PCB 156	2/5/2009	3/9/2010	13	0.0015	0.0015	µg/L
PCB 157	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 158	2/5/2009	3/9/2010	13	0.0021	0.0021	µg/L
PCB 167	2/5/2009	3/9/2010	13	0.0018	0.0018	µg/L
PCB 169	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 170	2/5/2009	3/9/2010	13	0.0014	0.0014	µg/L
PCB 177	2/5/2009	3/9/2010	13	0.0016	0.0018	µg/L
PCB 180	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 183	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 187	2/5/2009	3/9/2010	13	0.0015	0.0015	µg/L
PCB 189	2/5/2009	3/9/2010	13	0.001	0.001	µg/L
PCB 194	2/5/2009	3/9/2010	13	0.0017	0.0017	µg/L
PCB 201	2/5/2009	3/9/2010	13	0.0016	0.0016	µg/L
PCB 206	2/5/2009	3/9/2010	13	0.0012	0.0012	µg/L
Pyrene	2/5/2009	5/17/2010	16	0.02	0.02	µg/L
Vanadium Dissolved	4/26/2001	5/31/2001	2	5	5	µg/L
Vanadium Total	4/26/2001	5/31/2001	2	5	5	µg/L

Ballona Creek Reach 2 – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
1,2 Benzantracene	10/10/2002	6/12/2013	65	0.03	1.67	µg/L
1,2,4,5-Tetrachlorobenzene	10/17/2004	3/9/2005	6	1	1	µg/L
1,2,4-Trichlorobenzene	10/10/2002	6/12/2013	71	0.33	1	µg/L
1,2-Dichlorobenzene	10/10/2002	6/12/2013	71	0.05	1	µg/L
1,2-Diphenylhydrazine	10/10/2002	6/12/2013	71	0.33	3	µg/L
1,3-Dichlorobenzene	10/10/2002	6/12/2013	71	0.05	1	µg/L
1,4-Dichlorobenzene	10/10/2002	6/12/2013	71	0.05	1	µg/L
1-Chloronaphthalene	10/17/2004	3/9/2005	6	0.1	0.1	µg/L
1-Naphthylamine	10/17/2004	3/9/2005	6	3	3	µg/L
2- Chlorophenol	10/17/2005	6/12/2013	54	0.67	2	µg/L
2,3,4,6-Tetrachlorophenol	10/17/2004	3/9/2005	6	1	1	µg/L
2,4,5-TP	10/10/2002	6/12/2013	71	0.067	10	µg/L
2,4,5-Trichlophenol	10/17/2004	3/9/2005	6	1	1	µg/L
2,4,6-Trichlophenol	10/10/2002	6/12/2013	40	1	1	µg/L
2,4-D	10/10/2002	6/12/2013	71	0.015	10	µg/L
2,4'-DDD	10/31/2006	10/9/2013	37	0.003	0.05	µg/L
2,4'-DDE	10/31/2006	10/9/2013	37	0.002	0.05	µg/L
2,4'-DDT	10/31/2006	10/9/2013	37	0.002	0.01	µg/L
2,4-Dichlorophenol	10/10/2002	6/12/2013	73	0.33	2	µg/L
2,4-Dimethylphenol	10/10/2002	6/12/2013	73	0.67	2	µg/L
2,4-Dinitrophenol	10/10/2002	6/12/2013	73	1	3	µg/L
2,4-Dinitrotoluene	10/10/2002	6/12/2013	71	0.05	5	µg/L
2,6-Dichlorophenol	10/17/2004	3/9/2005	6	2	2	µg/L
2,6-Dinitrotoluene	10/10/2002	6/12/2013	71	0.05	5	µg/L
2-Chloroethyl Vinyl Ether	10/17/2005	4/9/2013	67	0.33	400	µg/L
2-Chloronaphthalene	10/10/2002	6/12/2013	71	0.1	10	µg/L
2-Chlorophenol	10/10/2002	3/9/2005	17	2	2	µg/L
2-Methylphenol	10/17/2004	3/9/2005	6	3	3	µg/L
2-Naphthylamine	10/17/2004	3/9/2005	6	3	3	µg/L
2-Nitroaniline	10/17/2004	3/9/2005	6	3	3	µg/L
2-Nitrophenol	10/10/2002	6/12/2013	73	1	3	µg/L
2-Picoline	10/17/2004	3/9/2005	6	3	3	µg/L
3,3-Dichlorobenzidine	10/10/2002	6/12/2013	71	1.67	5	µg/L
3-Nitroaniline	10/17/2004	3/9/2005	6	3	3	µg/L
4,4'-DDD	10/10/2002	10/9/2013	75	0.002	0.1	µg/L
4,4'-DDT	10/10/2002	10/9/2013	75	0.001	0.1	µg/L
4,6 Dinitro-2-methylphenol	10/10/2002	6/12/2013	71	1	5	µg/L
4-Bromophenyl phenyl ether	10/10/2002	6/12/2013	71	0.4	1.67	µg/L
4-chloro-3-methylphenol	10/10/2002	6/12/2013	73	1	3	µg/L
4-Chlorophenyl phenyl ether	10/10/2002	6/12/2013	71	0.04	1.67	µg/L
4-Methylphenol	10/17/2004	3/9/2005	6	3	3	µg/L

Ballona Creek Reach 2 – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
4-Nitroaniline	10/17/2004	3/9/2005	6	3	3	µg/L
4-Nitrophenol	10/10/2002	6/12/2013	73	1	3	µg/L
7,12-Dimethylbenz(a)anthracene	10/17/2004	3/9/2005	6	0.1	0.1	µg/L
Acenaphthene	10/10/2002	10/9/2013	91	0.05	1	µg/L
Acenaphthylene	10/10/2002	10/9/2013	91	0.05	2	µg/L
Acetophenone	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
Aldrin	10/10/2002	6/12/2013	70	0.004	0.05	µg/L
alpha,alpha-Dimethylphenethylamine	10/17/2004	3/9/2005	6	3	3	µg/L
alpha-BHC	10/10/2002	6/12/2013	70	0.003	0.05	µg/L
Aminobiphenyl	10/17/2004	3/9/2005	6	3	3	µg/L
Aniline	10/17/2004	3/9/2005	6	3	3	µg/L
Anthracene	10/10/2002	10/9/2013	91	0.05	2	µg/L
Aroclor 1016	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Aroclor 1221	10/10/2002	10/9/2013	94	0.01	0.5	µg/L
Aroclor 1232	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Aroclor 1242	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Aroclor 1248	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Aroclor 1254	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Aroclor 1260	10/10/2002	10/9/2013	90	0.01	0.5	µg/L
Atrazine	10/10/2002	6/12/2013	71	0.667	2	µg/L
Bentazon	10/17/2004	3/9/2005	6	2	2	µg/L
Benzidine	10/10/2002	6/12/2013	71	1.67	5	µg/L
Benzo(k)fluoranthene	10/10/2002	10/9/2013	91	0.1	2	µg/L
beta-BHC	10/10/2002	6/12/2013	70	0.005	0.05	µg/L
Bis(2-Chloroethoxy) methane	10/10/2002	6/12/2013	77	0.1	5	µg/L
Bis(2-Chloroethyl) ether	10/10/2002	6/12/2013	65	0.1	1	µg/L
Bis(2-Chloroisopropyl) ether	10/10/2002	6/12/2013	71	0.67	2	µg/L
Carbofuran	10/17/2004	4/9/2008	13	5	5	µg/L
Chlordane	10/17/2004	6/12/2013	59	0.01	0.1	µg/L
Chloroaniline	10/17/2004	3/9/2005	6	1	1	µg/L
Chlorpyrifos	11/12/2001	6/12/2013	77	0.02	0.05	µg/L
Cyanazine	10/10/2002	6/12/2013	71	0.667	2	µg/L
delta-BHC	10/10/2002	6/12/2013	70	0.005	0.05	µg/L
Dibenz(a,i)acridine	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
Dieldrin	10/10/2002	10/9/2013	90	0.002	0.1	µg/L
Dimethyl phthalate	10/10/2002	6/12/2013	71	0.5	2	µg/L
di-n-Octyl phthalate	10/10/2002	6/12/2013	64	1	10	µg/L
Diphenyl amine	10/17/2004	3/9/2005	6	1	1	µg/L
Diuron	10/17/2004	3/9/2005	6	1	1	µg/L
Endosulfan I	10/10/2002	6/12/2013	70	0.01	0.1	µg/L
Endosulfan II	10/10/2002	6/12/2013	70	0.004	0.1	µg/L

Ballona Creek Reach 2 – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
Endosulfan sulfate	10/10/2002	6/12/2013	70	0.05	0.1	µg/L
Endrin	10/10/2002	6/12/2013	70	0.006	0.1	µg/L
Endrin aldehyde	10/10/2002	6/12/2013	70	0.01	0.1	µg/L
Endrin ketone	10/17/2004	7/30/2009	24	0.1	1	µg/L
Ethyl methanesulfonate	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
Fluorene	10/10/2002	10/9/2013	91	0.02	0.1	µg/L
gamma-BHC (lindane)	10/10/2002	6/12/2013	70	0.004	0.05	µg/L
Glyphosate	10/10/2002	6/12/2013	71	5	25	µg/L
Heptachlor	10/10/2002	6/12/2013	70	0.003	0.05	µg/L
Heptachlor Epoxide	10/10/2002	6/12/2013	70	0.01	0.05	µg/L
Hexachlorobenzene	10/10/2002	6/12/2013	71	0.33	1	µg/L
Hexachlorobutadiene	10/10/2002	6/12/2013	71	0.33	1	µg/L
Hexachloro-cyclopentadiene	10/10/2002	6/12/2013	71	1.67	5	µg/L
Hexachloroethane	10/10/2002	6/12/2013	71	0.33	1	µg/L
Malathion	10/10/2002	6/12/2013	70	0.33	2	µg/L
Methoxychlor	10/17/2004	6/12/2013	54	0.5	0.5	µg/L
Methylcholanthrene	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
Methylmethanesulfonate	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
Molinate	10/17/2004	3/9/2005	6	2	2	µg/L
Naphthalene	10/10/2002	10/9/2013	91	0.05	0.2	µg/L
Nitrobenzene	10/10/2002	6/12/2013	71	0.05	1	µg/L
N-Nitroso-butyl amine	10/17/2004	3/9/2005	6	0.3	0.3	µg/L
N-Nitroso-di-n-propyl amine	10/10/2002	6/12/2013	71	0.3	5	µg/L
N-Nitrosopiperidine	10/17/2004	3/9/2005	6	1	1	µg/L
Nonachlor, cis-	10/6/2010	10/9/2013	20	0.001	0.005	µg/L
Oxychlorane	10/6/2010	10/9/2013	20	0.001	0.003	µg/L
Pentachlorophenol	10/10/2002	6/12/2013	71	0.67	2	µg/L
Phenacitin	10/17/2004	3/9/2005	6	3	3	µg/L
Phenols	10/10/2002	6/12/2013	70	0.33	1.5	µg/L
Pronamide	10/17/2004	3/9/2005	6	5	5	µg/L
Simazine	10/10/2002	6/12/2013	71	0.67	2	µg/L
Thiobencarb	11/12/2001	3/9/2005	6	1	1	µg/L
Toxaphene	10/10/2002	6/12/2013	70	0.24	1	µg/L

Centinela Creek – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
1,2 Benzantracene	10/17/2005	4/25/2006	7	0.1	0.1	µg/L
1,2,4,5-Tetrachlorobenzene	10/17/2004	3/17/2005	7	1	1	µg/L
1,2,4-Trichlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
1,2-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,2-Diphenylhydrazine	10/17/2004	4/25/2006	14	3	3	µg/L
1,3-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,4-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1-Chloronaphthalene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
1-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2- Chlorophenol	10/17/2005	4/25/2006	7	2	2	µg/L
2,3,4,6-Tetrachlorophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,5-TP	10/17/2004	4/25/2006	14	1	1	µg/L
2,4,5-Trichlophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,6-Trichlophenol	10/17/2004	4/25/2006	14	1	1	µg/L
2,4-D	10/17/2004	4/25/2006	14	10	10	µg/L
2,4'-DDD	10/6/2010	10/9/2013	16	0.003	0.004	µg/L
2,4'-DDT	10/6/2010	10/9/2013	16	0.002	0.005	µg/L
2,4-Dichlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-Dimethylphenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-Dinitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2,4-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2,6-Dichlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2,6-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2-Chloroethyl Vinyl Ether	10/17/2005	4/25/2006	7	2.5	2.5	µg/L
2-Chloronaphthalene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
2-Chlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
2-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2-Picoline	10/17/2004	3/17/2005	7	3	3	µg/L
3,3-Dichlorobenzidine	10/17/2004	4/25/2006	14	3	3	µg/L
3,4 Benzofluoranthene	10/17/2004	10/9/2013	30	0.1	2	µg/L
3-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
4,4'-DDD	10/17/2004	10/9/2013	30	0.002	0.1	µg/L
4,6 Dinitro-2-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Bromophenyl phenyl ether	10/17/2004	4/25/2006	14	1	1	µg/L
4-chloro-3-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Chlorophenyl phenyl ether	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
4-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L

Centinela Creek – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
4-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
7,12-Dimethylbenz(a)anthracene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Acenaphthene	10/17/2004	10/9/2013	30	0.05	0.13	µg/L
Acenaphthylene	10/17/2004	10/9/2013	30	0.05	0.13	µg/L
Acetophenone	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Aldrin	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
alpha,alpha-Dimethylphenethylamine	10/17/2004	3/17/2005	7	3	3	µg/L
alpha-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
alpha-chlordane	10/6/2010	10/9/2013	16	0.001	0.009	µg/L
Aminobiphenyl	10/17/2004	3/17/2005	7	3	3	µg/L
Aniline	10/17/2004	3/17/2005	7	3	3	µg/L
Anthracene	10/17/2004	10/9/2013	30	0.05	0.5	µg/L
Aroclor 1016	10/17/2004	10/9/2013	30	0.022	0.5	µg/L
Aroclor 1221	10/17/2004	10/9/2013	30	0.02	0.5	µg/L
Aroclor 1232	10/17/2004	10/9/2013	30	0.028	0.5	µg/L
Aroclor 1242	10/17/2004	10/9/2013	30	0.024	0.5	µg/L
Aroclor 1248	10/17/2004	10/9/2013	30	0.019	0.5	µg/L
Aroclor 1254	10/17/2004	10/9/2013	30	0.026	0.5	µg/L
Aroclor 1260	10/17/2004	10/9/2013	30	0.029	0.5	µg/L
Atrazine	10/17/2004	4/25/2006	14	2	2	µg/L
Bentazon	10/17/2004	3/17/2005	7	2	2	µg/L
Benzidine	10/17/2004	4/25/2006	14	3	3	µg/L
Benzo(a)pyrene	10/17/2004	10/9/2013	30	0.1	0.13	µg/L
Beryllium Dissolved	10/17/2004	4/25/2006	28	0.4	1	µg/L
beta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Bis(2-Chloroethoxy) methane	10/17/2004	4/25/2006	21	0.1	0.1	µg/L
Bis(2-Chloroethyl) ether	10/17/2005	4/25/2006	7	0.1	0.1	µg/L
Bis(2-Chloroisopropyl) ether	10/17/2004	4/25/2006	14	1	1	µg/L
Butyl benzyl phthalate	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
Carbofuran	10/17/2004	3/17/2005	7	5	5	µg/L
Chlordane	10/17/2004	4/25/2006	14	0.05	0.1	µg/L
Chloroaniline	10/17/2004	3/17/2005	7	1	1	µg/L
Chlorpyrifos	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Chromium (6+) Dissolved	10/17/2004	4/25/2006	14	10	10	µg/L
Chromium (6+) Total	10/17/2004	4/25/2006	14	10	10	µg/L
Cyanazine	10/17/2004	4/25/2006	14	2	2	µg/L
delta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Dibenz(a,j)acridine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Dieldrin	10/17/2004	10/9/2013	30	0.002	0.1	µg/L
Diethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Dimethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L

Centinela Creek – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
di-n-Butyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
di-n-Octyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
Diphenyl amine	10/17/2004	3/17/2005	7	1	1	µg/L
Diuron	10/17/2004	3/17/2005	7	1	1	µg/L
Endosulfan I	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan II	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan sulfate	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin aldehyde	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin ketone	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Ethyl methanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Fluorene	10/17/2004	10/9/2013	30	0.02	0.1	µg/L
gamma-BHC (lindane)	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
gamma-chlordane	10/6/2010	10/9/2013	16	0.001	0.004	µg/L
Glyphosate	10/17/2004	4/25/2006	14	25	25	µg/L
Heptachlor	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Heptachlor Epoxide	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Hexachlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Hexachlorobutadiene	10/17/2004	4/25/2006	14	1	1	µg/L
Hexachloro-cyclopentadiene	10/17/2004	4/25/2006	14	3	3	µg/L
Hexachloroethane	10/17/2004	4/25/2006	14	1	1	µg/L
Manganese Dissolved	10/17/2004	3/17/2005	7	30	30	µg/L
Methoxychlor	10/17/2004	3/17/2005	7	0.5	0.5	µg/L
Methylcholanthrene	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Methylmethanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Molinate	10/17/2004	3/17/2005	7	2	2	µg/L
MTBE	10/17/2005	4/25/2006	7	1	1	µg/L
Nitrobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
N-Nitroso-butyl amine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
N-Nitroso-dimethyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitroso-di-n-propyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitrosodiphenylamine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitrosopiperidine	10/17/2004	3/17/2005	7	1	1	µg/L
Nonachlor, cis-	10/6/2010	10/9/2013	16	0.001	0.005	µg/L
Nonachlor, trans-	10/6/2010	10/9/2013	16	0.002	0.005	µg/L
Oxychlordane	10/6/2010	10/9/2013	16	0.001	0.003	µg/L
Pentachlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L
Phenacitin	10/17/2004	3/17/2005	7	3	3	µg/L
Phenols	10/17/2004	4/25/2006	14	1	1	µg/L
Prometryn	10/17/2004	4/25/2006	14	2	2	µg/L
Pronamide	10/17/2004	3/17/2005	7	5	5	µg/L

Centinela Creek – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
Simazine	10/17/2004	4/25/2006	14	2	2	µg/L
Thallium Dissolved	10/17/2004	4/25/2006	14	5	5	µg/L
Thallium Total	10/17/2004	4/25/2006	14	5	5	µg/L
Thiobencarb	10/17/2004	3/17/2005	7	1	1	µg/L
Thorium Total	1/25/2005	2/21/2006	14	1	1	µg/L
Toxaphene	10/17/2004	4/25/2006	14	1	1	µg/L

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Sepulveda Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
1,2 Benzantracene	10/17/2005	4/25/2006	7	0.1	0.1	µg/L
1,2,4,5-Tetrachlorobenzene	10/17/2004	3/17/2005	7	1	1	µg/L
1,2,4-Trichlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
1,2-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,2-Diphenylhydrazine	10/17/2004	4/25/2006	14	3	3	µg/L
1,3-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,4-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1-Chloronaphthalene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
1-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2- Chlorophenol	10/17/2005	4/25/2006	7	2	2	µg/L
2,3,4,6-Tetrachlorophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,5-TP	10/17/2004	4/25/2006	14	1	1	µg/L
2,4,5-trichlorophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,6-trichlorophenol	10/17/2004	4/25/2006	14	1	1	µg/L
2,4-D	10/17/2004	4/25/2006	14	10	10	µg/L
2,4-Dichlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-dimethylphenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-Dinitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2,4-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2,6-Dichlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2,6-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2-Chloroethyl Vinyl Ether	10/17/2005	4/25/2006	7	2.5	2.5	µg/L
2-Chloronaphthalene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
2-Chlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
2-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2-Picoline	10/17/2004	3/17/2005	7	3	3	µg/L
3,3-Dichlorobenzidine	10/17/2004	4/25/2006	14	3	3	µg/L
3,4 Benzofluoranthene	10/17/2004	4/25/2006	14	0.1	2	µg/L
3-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
4,4'-DDD	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,4'-DDE	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,4'-DDT	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,6 Dinitro-2-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Bromophenyl phenyl ether	10/17/2004	4/25/2006	14	1	1	µg/L
4-chloro-3-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Chlorophenyl phenyl ether	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
4-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L

Sepulveda Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
4-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
7,12-Dimethylbenz(a)anthracene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Acenaphthene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Acenaphthylene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Acetophenone	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Aldrin	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
alpha,alpha-Dimethylphenethylamine	10/17/2004	3/17/2005	7	3	3	µg/L
alpha-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Aminobiphenyl	10/17/2004	3/17/2005	7	3	3	µg/L
Aniline	10/17/2004	3/17/2005	7	3	3	µg/L
Anthracene	10/17/2004	4/25/2006	14	0.05	0.5	µg/L
Aroclor 1016	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1221	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1232	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1242	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1248	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1254	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1260	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Atrazine	10/17/2004	4/25/2006	14	2	2	µg/L
Bentazon	10/17/2004	3/17/2005	7	2	2	µg/L
Benzidine	10/17/2004	4/25/2006	14	3	3	µg/L
Benzo(a)anthracene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Benzo(a)pyrene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Benzo(g,h,i)perylene	10/17/2005	4/25/2006	7	1	1	µg/L
Benzo(k)fluoranthene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Beryllium Dissolved	10/17/2004	4/25/2006	28	0.4	1	µg/L
Beryllium Total	10/17/2004	4/25/2006	28	0.4	1	µg/L
beta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Bis(2-Chloroethoxy) methane	10/17/2004	4/25/2006	21	0.1	0.1	µg/L
Bis(2-Chloroethyl) ether	10/17/2005	4/25/2006	7	0.1	0.1	µg/L
Bis(2-Chloroisopropyl) ether	10/17/2004	4/25/2006	14	1	1	µg/L
Butyl benzyl phthalate	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
Carbofuran	10/17/2004	3/17/2005	7	5	5	µg/L
Chlordane	10/17/2004	4/25/2006	14	0.05	0.1	µg/L
Chloroaniline	10/17/2004	3/17/2005	7	1	1	µg/L
Chromium (6+) Dissolved	10/17/2004	4/25/2006	14	10	10	µg/L
Chromium (6+) Total	10/17/2004	4/25/2006	14	10	10	µg/L
Chrysene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Cyanazine	10/17/2004	4/25/2006	14	2	2	µg/L
delta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Dibenz(a,j)acridine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L

Sepulveda Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
Dibenzo(a,h)anthracene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Dieldrin	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Diethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Dimethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
di-n-Butyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
di-n-Octyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
Diphenyl amine	10/17/2004	3/17/2005	7	1	1	µg/L
Diuron	10/17/2004	3/17/2005	7	1	1	µg/L
Endosulfan I	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan II	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan sulfate	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin aldehyde	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin ketone	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Ethyl methanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Fluoranthene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Fluorene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
gamma-BHC (lindane)	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Glyphosate	10/17/2004	4/25/2006	14	25	25	µg/L
Heptachlor	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Heptachlor Epoxide	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Hexachlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Hexachlorobutadiene	10/17/2004	4/25/2006	14	1	1	µg/L
Hexachloro-cyclopentadiene	10/17/2004	4/25/2006	14	3	3	µg/L
Hexachloroethane	10/17/2004	4/25/2006	14	1	1	µg/L
Indeno(1,2,3-cd)pyrene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Isophorone	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Malathion	10/17/2004	4/25/2006	14	2	2	µg/L
Methoxychlor	10/17/2004	3/17/2005	7	0.5	0.5	µg/L
Methylcholanthrene	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Methylmethanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Molinate	10/17/2004	3/17/2005	7	2	2	µg/L
MTBE	10/17/2005	4/25/2006	7	1	1	µg/L
Naphthalene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Nitrobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
N-Nitroso-butyl amine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
N-Nitroso-dimethyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitroso-di-n-propyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitrosodiphenylamine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitrosopiperidine	10/17/2004	3/17/2005	7	1	1	µg/L
Pentachlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L

Sepulveda Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
Phenacitin	10/17/2004	3/17/2005	7	3	3	µg/L
Phenanthrene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Phenols	10/17/2004	4/25/2006	14	1	1	µg/L
Prometryn	10/17/2004	4/25/2006	14	2	2	µg/L
Pronamide	10/17/2004	3/17/2005	7	5	5	µg/L
Simazine	10/17/2004	4/25/2006	14	2	2	µg/L
Thallium Dissolved	10/17/2004	4/25/2006	14	5	5	µg/L
Thallium Total	10/17/2004	4/25/2006	14	5	5	µg/L
Thiobencarb	10/17/2004	3/17/2005	7	1	1	µg/L
Toxaphene	10/17/2004	4/25/2006	14	1	1	µg/L
TPH	10/17/2004	3/17/2005	7	1	1	mg/L

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Benedict Canyon Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
1-Chloronaphthalene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
1,2 Benzanthracene	11/9/2005	4/25/2006	7	0.1	0.1	µg/L
1,2,4,5-Tetrachlorobenzene	10/17/2004	3/17/2005	7	1	1	µg/L
1,2,4-Trichlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
1,2-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,2-Diphenylhydrazine	10/17/2004	4/25/2006	14	3	3	µg/L
1,3-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1,4-Dichlorobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
1-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2- Chlorophenol	11/9/2005	4/25/2006	7	2	2	µg/L
2,3,4,6-Tetrachlorophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,5-TP	10/17/2004	4/25/2006	13	1	1	µg/L
2,4,5-trichlophenol	10/17/2004	3/17/2005	7	1	1	µg/L
2,4,6-trichlophenol	10/17/2004	4/25/2006	14	1	1	µg/L
2,4-D	10/17/2004	4/25/2006	13	10	10	µg/L
2,4-Dichlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-dimethylphenol	10/17/2004	4/25/2006	14	2	2	µg/L
2,4-Dinitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2,4-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2,6-Dichlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2,6-Dinitrotoluene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
2-Chloroethyl Vinyl Ether	10/17/2005	4/25/2006	8	2.5	2.5	µg/L
2-Chloronaphthalene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
2-Chlorophenol	10/17/2004	3/17/2005	7	2	2	µg/L
2-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
2-Naphthylamine	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
2-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
2-Picoline	10/17/2004	3/17/2005	7	3	3	µg/L
3,3-Dichlorobenzidine	10/17/2004	4/25/2006	14	3	3	µg/L
3,4 Benzofluoranthene	10/17/2004	4/25/2006	14	0.1	2	µg/L
3-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L
4,4'-DDD	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,4'-DDE	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,4'-DDT	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4,6 Dinitro-2-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Bromophenyl phenyl ether	10/17/2004	4/25/2006	14	1	1	µg/L
4-chloro-3-methylphenol	10/17/2004	4/25/2006	14	3	3	µg/L
4-Chlorophenyl phenyl ether	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
4-Methylphenol	10/17/2004	3/17/2005	7	3	3	µg/L
4-Nitroaniline	10/17/2004	3/17/2005	7	3	3	µg/L

Benedict Canyon Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
4-Nitrophenol	10/17/2004	4/25/2006	14	3	3	µg/L
7,12-Dimethylbenz(a)anthracene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Acenaphthene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Acenaphthylene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Acetophenone	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Aldrin	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
alpha,alpha-Dimethylphenethylamine	10/17/2004	3/17/2005	7	3	3	µg/L
alpha-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Aluminum Dissolved	10/17/2004	4/25/2006	14	100	100	µg/L
Aminobiphenyl	10/17/2004	3/17/2005	7	3	3	µg/L
Aniline	10/17/2004	3/17/2005	7	3	3	µg/L
Anthracene	10/17/2004	4/25/2006	14	0.05	0.5	µg/L
Aroclor 1016	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1221	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1232	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1242	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1248	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1254	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Aroclor 1260	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Atrazine	10/17/2004	4/25/2006	14	2	2	µg/L
Bentazon	10/17/2004	3/17/2005	7	2	2	µg/L
Benzidine	10/17/2004	4/25/2006	14	3	3	µg/L
Benzo(a)anthracene	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Benzo(a)pyrene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Benzo(g,h,i)perylene	11/9/2005	4/25/2006	7	1	1	µg/L
Benzo(k)fluoranthene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Beryllium Dissolved	10/17/2004	4/25/2006	28	0.4	1	µg/L
Beryllium Total	10/17/2004	4/25/2006	28	0.4	1	µg/L
beta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Bis(2-Chloroethoxy) methane	10/17/2004	4/25/2006	21	0.1	0.1	µg/L
Bis(2-Chloroethyl) ether	11/9/2005	4/25/2006	7	0.1	0.1	µg/L
Bis(2-Chloroisopropyl) ether	10/17/2004	4/25/2006	14	1	1	µg/L
Butyl benzyl phthalate	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
Carbofuran	10/17/2004	3/17/2005	7	5	5	µg/L
Carbonate	10/17/2004	3/17/2005	7	2000	2000	µg/L
Chlordane	10/17/2004	4/25/2006	14	0.05	0.1	µg/L
Chloroaniline	10/17/2004	3/17/2005	7	1	1	µg/L
Chlorpyrifos	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Chromium (6+) Dissolved	10/17/2004	4/25/2006	14	10	10	µg/L
Chromium (6+) Total	10/17/2004	4/25/2006	14	10	10	µg/L
Chrysene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L

Benedict Canyon Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
Cyanazine	10/17/2004	4/25/2006	14	2	2	µg/L
delta-BHC	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Dibenz(a,j)acridine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Dibenzo(a,h)anthracene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Dieldrin	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Diethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Dimethyl phthalate	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
di-n-Butyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
di-n-Octyl phthalate	10/17/2004	4/25/2006	14	1	1	µg/L
Diphenyl amine	10/17/2004	3/17/2005	7	1	1	µg/L
Diuron	10/17/2004	3/17/2005	7	1	1	µg/L
Endosulfan I	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan II	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endosulfan sulfate	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin aldehyde	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Endrin ketone	10/17/2004	3/17/2005	7	0.1	0.1	µg/L
Ethyl methanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Fluoranthene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Fluorene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
gamma-BHC (lindane)	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Glyphosate	10/17/2004	4/25/2006	14	25	25	µg/L
Heptachlor	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Heptachlor Epoxide	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Hexachlorobenzene	10/17/2004	4/25/2006	14	0.5	0.5	µg/L
Hexachlorobutadiene	10/17/2004	4/25/2006	14	1	1	µg/L
Hexachloro-cyclopentadiene	10/17/2004	4/25/2006	14	3	3	µg/L
Hexachloroethane	10/17/2004	4/25/2006	14	1	1	µg/L
Indeno(1,2,3-cd)pyrene	10/17/2004	4/25/2006	14	0.1	0.1	µg/L
Isophorone	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Malathion	10/17/2004	4/25/2006	14	2	2	µg/L
Methoxychlor	10/17/2004	3/17/2005	7	0.5	0.5	µg/L
Methylcholanthrene	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Methylmethanesulfonate	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
Molinate	10/17/2004	3/17/2005	7	2	2	µg/L
MTBE	10/17/2005	4/25/2006	8	1	1	µg/L
Naphthalene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Nitrobenzene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
N-Nitroso-butyl amine	10/17/2004	3/17/2005	7	0.3	0.3	µg/L
N-Nitroso-dimethyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitroso-di-n-propyl amine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L

Benedict Canyon Channel – Constituents that have not been detected in water						
Constituent	Date Range of Available Data		N	Detection Limit		Units
				Min DL	Max DL	
N-Nitrosodiphenylamine	10/17/2004	4/25/2006	14	0.3	0.3	µg/L
N-Nitrosopiperidine	10/17/2004	3/17/2005	7	1	1	µg/L
Pentachlorophenol	10/17/2004	4/25/2006	14	2	2	µg/L
Phenacitin	10/17/2004	3/17/2005	7	3	3	µg/L
Phenols	10/17/2004	4/25/2006	14	1	1	µg/L
Prometryn	10/17/2004	4/25/2006	14	2	2	µg/L
Pronamide	10/17/2004	3/17/2005	7	5	5	µg/L
Pyrene	10/17/2004	4/25/2006	14	0.05	0.05	µg/L
Simazine	10/17/2004	4/25/2006	14	2	2	µg/L
Thallium Dissolved	10/17/2004	4/25/2006	14	5	5	µg/L
Thallium Total	10/17/2004	4/25/2006	14	5	5	µg/L
Thiobencarb	10/17/2004	3/17/2005	7	1	1	µg/L
Toxaphene	10/17/2004	4/25/2006	14	1	1	µg/L
TPH	10/17/2004	3/17/2005	7	1	1	mg/L

Appendix B Attachment 2

List of Constituents that have been Detected in Water and do not Exceed Water Quality Objectives

Constituents in this appendix either did not exceed a water quality objective or there is no applicable water quality objective for the constituent.

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Ballona Creek Estuary - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Antimony Dissolved	4/26/2001	2/21/2006	57	6	µg/L	1.1	18	NA	NA
Antimony Total	4/26/2001	2/21/2006	58	10	µg/L	1.1	18	4300	CTR HH Organism
Arsenic Dissolved	4/26/2001	8/19/2008	86	81	µg/L	1	10	36	CTR Saltwater Chronic
Arsenic Total	4/26/2001	8/19/2008	86	81	µg/L	1	10	36	CTR Saltwater Chronic
Barium Dissolved	4/26/2001	8/19/2008	87	83	µg/L	5	0.4	NA	NA
Barium Total	4/26/2001	8/19/2008	87	84	µg/L	2	0.4	NA	NA
Benzo(g,h,i)perylene	2/5/2009	5/17/2010	16	2	µg/L	0.03	0.03	NA	NA
Beryllium Dissolved	4/26/2001	2/21/2006	58	10	µg/L	0.006	1	NA	NA
Beryllium Total	4/26/2001	2/21/2006	58	10	µg/L	0.006	1	NA	NA
Cadmium Dissolved	4/26/2001	5/17/2010	102	59	µg/L	0.08	1	9.3	CTR Saltwater Chronic
Cadmium Total	4/26/2001	5/17/2010	16	15	µg/L	0.08	1	9.4	CTR Saltwater Chronic
Chromium Dissolved	4/26/2001	8/19/2008	86	40	µg/L	0.1	10	NA	NA
Chromium Total	4/26/2001	8/19/2008	86	55	µg/L	0.1	10	NA	NA
Cobalt Dissolved	4/26/2001	2/21/2006	56	26	µg/L	0.2	20	NA	NA
Cobalt Total	4/26/2001	2/21/2006	56	33	µg/L	0.2	20	NA	NA
<i>E. coli</i>	4/3/2001	8/29/2013	900	692	MPN/100ml	67	1000	NA	NA
Hardness	1/27/2004	5/17/2010	70	70	mg/L	AD	AD	NA	NA
Mercury Dissolved	4/26/2001	2/21/2006	58	23	µg/L	0.02	0.3	NA	NA
Phenanthrene	2/5/2009	5/17/2010	16	1	µg/L	0.01	0.01	NA	NA
Selenium Dissolved	5/31/2001	8/19/2008	83	67	µg/L	0.1	30	71	CTR Saltwater Chronic
Selenium Total	5/31/2001	8/19/2008	83	71	µg/L	0.1	30	71.1	CTR Saltwater Chronic
Thorium Dissolved	4/26/2001	2/21/2006	57	14	µg/L	25	0.5	NA	NA
Thorium Total	4/26/2001	2/21/2006	58	15	µg/L	0.5	25	NA	NA

NA - No Available adopted water quality objective

AD - All values reported detected, no detection limit provided

Ballona Creek Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
2,4,6-trichlorophenol	10/10/2002	6/12/2013	33	1	µg/L	0.4	3.33	6.5	CTR HH Organism
Alkalinity	10/12/2000	6/12/2013	92	89	mg/L	2	2	NA	NA
Alkalinity as Bicarbonate	9/21/2010	11/20/2011	10	8	mg/L	2	2	NA	NA
Aluminum Dissolved	10/12/2000	6/12/2013	88	28	µg/L	50	1000	NA	NA
Aluminum Total	10/12/2000	6/12/2013	90	70	µg/L	50	1000	NA	NA
Antimony Dissolved	10/12/2000	6/12/2013	207	97	µg/L	0.2	18	NA	NA
Antimony Total	10/12/2000	6/12/2013	208	107	µg/L	0.2	18	4300	CTR HH Organism
Arsenic Dissolved	10/12/2000	6/12/2013	276	243	µg/L	0.2	10	150	CTR Freshwater Chronic
Arsenic Total	10/12/2000	6/12/2013	276	252	µg/L	0.2	10	150	CTR Freshwater Chronic
Barium Dissolved	10/12/2000	6/12/2013	265	257	µg/L	1	1	NA	NA
Barium Total	10/12/2000	6/12/2013	265	259	µg/L	1	1	NA	NA
Benzo(g,h,i)perylene	10/17/2005	10/9/2013	74	8	µg/L	0.03	1.67	NA	NA
Beryllium Dissolved	10/12/2000	6/12/2013	203	13	µg/L	0.006	1	NA	NA
Beryllium Total	10/12/2000	6/12/2013	205	18	µg/L	0.006	1	NA	NA
Bicarbonate	10/12/2000	12/5/2004	20	20	µg/L	AD	AD	NA	NA
BOD	10/12/2000	6/12/2013	93	88	mg/L	2	1	NA	NA
Boron Dissolved	10/12/2000	3/9/2005	22	16	mg/L	0.1	0.1	NA	NA
Boron Total	10/12/2000	3/9/2005	22	18	mg/L	0.1	0.1	NA	NA
Butyl benzyl phthalate	10/10/2002	6/12/2013	71	1	µg/L	0.1	3.33	5200	CTR HH Organism
Cadmium Dissolved	10/12/2000	6/12/2013	274	208	µg/L	0.5	10	HBC	CTR Freshwater Acute/Chronic
Calcium	10/12/2000	3/9/2005	22	22	µg/L	AD	AD	NA	NA
Carbonate	10/12/2000	3/9/2005	22	1	µg/L	2000	2000	NA	NA
Chloride Total	10/12/2000	6/12/2013	92	89	mg/L	1	1	NA	NA
Chromium Dissolved	10/12/2000	6/12/2013	274	208	µg/L	0.5	10	HBC	CTR Freshwater Acute/Chronic
Chromium Total	10/12/2000	6/12/2013	274	235	µg/L	0.5	10	HBC	CTR Freshwater Acute/Chronic
Chromium (6+) Dissolved	10/12/2000	6/12/2013	107	27	µg/L	0.25	10	11	CTR Freshwater Chronic
Chromium (6+) Total	10/10/2002	6/12/2013	77	34	µg/L	0.25	10	11.434	CTR Freshwater Chronic
Cobalt Dissolved	4/26/2001	2/21/2006	112	36	µg/L	0.2	20	NA	NA
Cobalt Total	4/26/2001	2/21/2006	112	51	µg/L	0.2	20	NA	NA
COD	10/12/2000	6/12/2013	92	87	mg/L	10	10	NA	NA
Dibenzo(a,h)anthracene	10/10/2002	10/9/2013	91	3	µg/L	0.02	0.1	0.049	CTR HH Organism
Diethyl phthalate	10/10/2002	6/12/2013	71	3	µg/L	0.5	2	120000	CTR HH Organism
di-n-Butyl phthalate	10/10/2002	6/12/2013	64	1	µg/L	1	10	12000	CTR HH Organism
Enterococcus	10/12/2000	4/9/2013	641	591	MPN/100ml	10	100	NA	NA
Fecal Coliform	10/12/2000	4/9/2013	425	420	MPN/100ml	20	20	NA	NA
Fluoranthene	10/10/2002	10/9/2013	91	17	µg/L	0.017	0.1	370	CTR HH Organism
Fluoride	10/12/2000	6/12/2013	91	83	mg/L	0.1	0.1	NA	NA
Hardness	10/12/2000	10/9/2013	347	347	mg/L	AD	AD	NA	NA

Ballona Creek Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Iron Dissolved	10/12/2000	6/12/2013	92	54	µg/L	50	100	NA	NA
Iron Total	10/12/2000	6/12/2013	92	84	µg/L	50	100	NA	NA
Isophorone	10/10/2002	6/12/2013	71	1	µg/L	0.05	1	600	CTR HH Organism
Kjeldahl-N	10/12/2000	6/12/2013	91	90	mg/L	0.1	0.1	NA	NA
Magnesium Total	10/12/2000	3/9/2005	22	22	µg/L	AD	AD	NA	NA
Manganese Dissolved	10/12/2000	3/9/2005	22	3	µg/L	30	100	NA	NA
Manganese Total	10/12/2000	3/9/2005	22	8	µg/L	30	100	NA	NA
MBAS	10/12/2000	6/12/2013	92	75	µg/L	10	50	NA	NA
Mercury Dissolved	10/12/2000	6/12/2013	203	30	µg/L	0.02	1	NA	NA
MTBE	10/17/2005	4/9/2013	54	1	µg/L	0.33	1	NA	NA
Nickel Dissolved	10/12/2000	6/12/2013	273	221	µg/L	0.5	20	HBC	CTR Freshwater Acute/Chronic
Nickel Total	10/12/2000	6/12/2013	274	234	µg/L	0.5	20	HBC	CTR Freshwater Acute/Chronic
Nitrate	10/12/2000	6/12/2013	92	87	mg/L	0.1	0.1	NA	NA
Nitrate-N	10/12/2000	6/12/2013	92	85	mg/L	0.03	0.5	NA	NA
Nitrite-N	10/12/2000	6/12/2013	87	47	mg/L	0.01	0.1	NA	NA
N-Nitroso-dimethyl amine	10/10/2002	6/12/2013	73	1	µg/L	0.3	5	8.1	CTR HH Organism
N-Nitrosodiphenylamine	10/10/2002	6/12/2013	73	1	µg/L	0.3	1	16	CTR HH Organism
Nonachlor, trans-	10/6/2010	10/9/2013	20	1	µg/L	0.002	0.005	NA	NA
Oil and Grease	10/12/2000	4/9/2013	82	49	mg/L	1.44	0.4	NA	NA
Petroleum Hydrocarbons Total	10/17/2005	4/9/2013	54	18	mg/L	1.5	0.4	NA	NA
Phenanthrene	10/10/2002	10/9/2013	91	10	µg/L	0.01	0.05	NA	NA
Phenolics Total	11/1/2006	4/9/2013	48	6	mg/L	0.03	0.1	4600000	CTR HH Organism
Phosphorus Total	10/12/2000	4/25/2006	39	38	mg/L	0.05	0.05	NA	NA
Phosphorus- Total (as P)	10/31/2006	6/12/2013	53	48	mg/L	0.05	0.05	NA	NA
Phosphorus-Dissolved	10/12/2000	6/12/2013	92	82	mg/L	0.05	0.05	NA	NA
Potassium	10/12/2000	3/9/2005	22	22	µg/L	AD	AD	NA	NA
Prometryn	10/10/2002	6/12/2013	71	2	µg/L	0.67	2	NA	NA
Pyrene	10/10/2002	10/9/2013	91	12	µg/L	0.017	0.05	11000	CTR HH Organism
Selenium Dissolved	10/12/2000	6/12/2013	268	203	µg/L	0.2	30	NA	NA
Sodium	10/12/2000	3/9/2005	22	22	µg/L	AD	AD	NA	NA
Specific Conductance	10/12/2000	6/12/2013	92	92	µmhos/cm	AD	AD	NA	NA
Streptococcus Fecal	10/12/2000	4/9/2013	82	80	MPN/100ml	20	20	NA	NA
Sulphate	10/12/2000	6/12/2013	92	90	mg/L	0.1	0.1	NA	NA
Thallium Dissolved	10/12/2000	6/12/2013	87	4	µg/L	0.1	5	NA	NA
Thallium Total	10/12/2000	6/12/2013	88	6	µg/L	0.1	5	6.3	CTR HH Organism
Thorium Dissolved	4/26/2001	2/21/2006	116	20	µg/L	25	0.5	NA	NA
Thorium Total	4/26/2001	2/21/2006	116	20	µg/L	0.5	25	NA	NA
Total Coliform	10/12/2000	4/9/2013	641	637	MPN/100ml	1000	20	NA	NA

Ballona Creek Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Total Dissolved Solids	10/12/2000	10/9/2013	96	94	mg/L	1	1	NA	NA
Total Organic Carbon	10/12/2000	6/12/2013	92	89	mg/L	0.5	0.4	NA	NA
Total Phenols	10/12/2000	4/25/2006	34	1	µg/L	100	100	4600000	CTR HH Organism
Total Settleable Solids	1/24/2013	11/21/2013	4	4	ml/l	AD	AD	NA	NA
Total Suspended Solids	10/12/2000	10/9/2013	140	137	mg/L	1	1	NA	NA
TPH	10/12/2000	3/9/2005	28	17	mg/L	1	1	NA	NA
Turbidity	10/12/2000	6/12/2013	93	93	NTU	AD	AD	NA	NA
Vanadium Dissolved	4/26/2001	5/31/2001	4	2	µg/L	5	5	NA	NA
Vanadium Total	4/26/2001	5/31/2001	4	2	µg/L	5	5	NA	NA
Volatile Suspended Solids	10/12/2000	6/12/2013	93	91	mg/L	1	1	NA	NA
NA - No Available adopted water quality objective									
HBC - Hardness Based Criteria, as defined by CTR									
AD - All values reported detected, no detection limit provided									

Ballona Creek Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective										
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value	
						Min	Max			
Antimony Dissolved	4/26/2001	2/21/2006	57	14	µg/L	1.1	18	NA	NA	
Antimony Total	4/26/2001	2/21/2006	58	17	µg/L	1.1	18	4300	CTR HH Organism	
Arsenic Dissolved	4/26/2001	1/8/2009	92	88	µg/L	10	10	150	CTR Freshwater Chronic	
Arsenic Total	4/26/2001	1/8/2009	92	89	µg/L	10	10	150	CTR Freshwater Chronic	
Barium Dissolved	4/26/2001	2/21/2006	92	92	µg/L	AD	AD	NA	NA	
Barium Total	4/26/2001	1/8/2009	92	92	µg/L	AD	AD	NA	NA	
Beryllium Dissolved	4/26/2001	2/21/2006	58	4	µg/L	0.006	1	NA	NA	
Beryllium Total	4/26/2001	2/21/2006	58	5	µg/L	0.006	1	NA	NA	
Cadmium Dissolved	4/26/2001	12/5/2010	99	42	µg/L	0.01	1	HBC	CTR Freshwater Acute/Chronic	
Chromium Dissolved	4/26/2001	1/8/2009	91	83	µg/L	0.7	10	HBC	CTR Freshwater Acute/Chronic	
Chromium Total	4/26/2001	1/8/2009	91	83	µg/L	0.7	10	HBC	CTR Freshwater Acute/Chronic	
Cobalt Dissolved	4/26/2001	2/21/2006	56	17	µg/L	0.2	20	NA	NA	
Cobalt Total	4/26/2001	2/21/2006	56	26	µg/L	0.2	20	NA	NA	
Enterococcus	4/3/2001	1/8/2009	279	242	MPN/100ml	10	100	NA	NA	
Fecal Coliform	6/25/2009	8/29/2013	210	210	MPN/100ml	AD	AD	NA	NA	
Hardness	1/27/2004	10/9/2013	116	116	mg/L	AD	AD	NA	NA	
Mercury Dissolved	4/26/2001	2/21/2006	58	15	µg/L	0.02	0.3	NA	NA	
Nickel Dissolved	4/26/2001	1/8/2009	90	70	µg/L	0.5	20	HBC	CTR Freshwater Acute/Chronic	
Nickel Total	4/26/2001	1/8/2009	91	75	µg/L	0.5	20	HBC	CTR Freshwater Acute/Chronic	
Selenium Dissolved	5/31/2001	1/8/2009	90	84	µg/L	0.2	30	NA	NA	
Thorium Dissolved	4/26/2001	2/21/2006	56	25	µg/L	25	0.5	NA	NA	
Thorium Total	4/26/2001	2/21/2006	58	24	µg/L	0.5	25	NA	NA	
Total Coliform	4/3/2001	1/8/2009	279	248	MPN/100ml	1000	1000	NA	NA	
Vanadium Dissolved	4/26/2001	5/31/2001	2	1	µg/L	5	5	NA	NA	
Vanadium Total	4/26/2001	5/31/2001	2	1	µg/L	5	5	NA	NA	
NA - No Available adopted water quality objective HBC - Hardness Based Criteria, as defined by CTR AD - All values reported detected, no detection limit provided										

Centinela Creek - Constituents that have been detected but do not exceed relevant water quality objective										
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value	
						Min	Max			
2,4'-DDE	10/6/2010	10/9/2013	16	1	µg/L	0.002	0.003	NA	NA	

Centinela Creek - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Alkalinity	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Aluminum Dissolved	10/17/2004	4/25/2006	14	4	µg/L	100	100	NA	NA
Aluminum Total	10/17/2004	4/25/2006	14	12	µg/L	100	100	NA	NA
Ammonia-N	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	HBC	BP 30-day Chronic early life stage fish present
Antimony Dissolved	10/17/2004	4/25/2006	28	22	µg/L	2	2	NA	NA
Antimony Total	10/17/2004	4/25/2006	28	23	µg/L	2	2	4300	CTR HH Organism
Arsenic Dissolved	10/17/2004	1/8/2009	62	61	µg/L	5	5	150	CTR Freshwater Chronic
Arsenic Total	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	150	CTR Freshwater Chronic
Barium Dissolved	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	NA	NA
Barium Total	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	NA	NA
Benzo(g,h,i)perylene	10/17/2005	10/9/2013	23	6	µg/L	0.03	1	NA	NA
Beryllium Total	10/17/2004	4/25/2006	28	1	µg/L	0.4	1	NA	NA
Bicarbonate	10/17/2004	12/5/2004	4	4	µg/L	AD	AD	NA	NA
BOD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Boron Dissolved	10/17/2004	3/17/2005	7	6	mg/L	0.1	0.1	NA	NA
Boron Total	10/17/2004	3/17/2005	7	6	mg/L	0.1	0.1	NA	NA
Cadmium Dissolved	10/17/2004	5/6/2013	78	61	µg/L	0.03	1	HBC	CTR Freshwater Acute/Chronic
Calcium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Carbonate	10/17/2004	3/17/2005	7	1	µg/L	2000	2000	NA	NA
Chloride Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Chromium Dissolved	10/17/2004	1/8/2009	60	58	µg/L	0.21	5	HBC	CTR Freshwater Acute/Chronic
Chromium Total	10/17/2004	1/8/2009	61	60	µg/L	0.21	0.21	HBC	CTR Freshwater Acute/Chronic
Cobalt Dissolved	1/25/2005	2/21/2006	14	9	µg/L	0.2	0.2	NA	NA
Cobalt Total	1/25/2005	2/21/2006	14	12	µg/L	0.2	0.2	NA	NA
COD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Cyanide Total	10/17/2004	4/25/2006	14	4	mg/L	10	10	5.2 - 22	CTR Freshwater Chronic and Acute
Diazinon	10/17/2004	4/25/2006	14	7	µg/L	0.01	0.01	NA	NA
Dibenzo(a,h)anthracene	10/17/2004	10/9/2013	30	3	µg/L	0.1	0.1	0.049	CTR HH Organism
Enterococcus	1/17/2002	1/8/2009	99	98	MPN/100ml	10	10	NA	NA
Fecal Coliform	10/17/2004	4/25/2006	14	14	MPN/100ml	AD	AD	NA	NA
Fluoranthene	10/17/2004	10/9/2013	30	12	µg/L	0.02	0.1	370	CTR HH Organism
Fluoride	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Hardness	10/17/2004	12/17/2010	64	64	mg/L	AD	AD	NA	NA
Iron Dissolved	10/17/2004	4/25/2006	14	7	µg/L	100	100	NA	NA
Iron Total	10/17/2004	4/25/2006	14	13	µg/L	100	100	NA	NA
Isophorone	10/17/2004	4/25/2006	14	2	µg/L	0.05	0.05	600	CTR HH Organism
Kjeldahl-N	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Lead Dissolved	10/17/2004	5/6/2013	78	61	µg/L	1	5	HBC	CTR Freshwater Acute/Chronic

Centinela Creek - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Magnesium Total	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Manganese Total	10/17/2004	3/17/2005	7	5	µg/L	30	30	NA	NA
Malathion	10/17/2004	4/25/2006	14	1	µg/L	2	2	NA	NA
MBAS	10/17/2004	4/25/2006	14	13	µg/L	50	50	NA	NA
Mercury Dissolved	10/17/2004	4/25/2006	28	2	µg/L	0.022	1	NA	NA
Mercury Total	10/17/2004	4/25/2006	28	4	µg/L	0.022	1	0.051	CTR HH Organism
Naphthalene	10/17/2004	10/9/2013	30	1	µg/L	0.05	0.13	NA	NA
Nickel Dissolved	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Nickel Total	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Nitrate	10/17/2004	4/25/2006	14	13	mg/L	0.1	0.1	NA	NA
Nitrate-N	10/17/2004	4/25/2006	14	12	mg/L	0.5	0.5	NA	NA
Nitrite-N	10/17/2004	4/25/2006	14	6	mg/L	0.03	0.03	NA	NA
Oil and Grease	10/17/2004	4/25/2006	14	2	mg/L	1	1	NA	NA
Oxygen Dissolved	10/17/2004	4/25/2006	13	13	mg/L	AD	AD	5	BP Single sample minimum
Petroleum Hydrocarbons Total	10/17/2005	4/25/2006	7	4	mg/L	1	1	NA	NA
Phenanthrene	10/17/2004	10/9/2013	30	10	µg/L	0.01	0.05	NA	NA
Phosphorus Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Phosphorus-Dissolved	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Potassium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Pyrene	10/17/2004	10/9/2013	30	9	µg/L	0.02	0.05	11000	CTR HH Organism
Selenium Dissolved	10/17/2004	1/8/2009	60	48	µg/L	0.1	5	NA	NA
Silver Dissolved	10/17/2004	12/17/2010	64	27	µg/L	0.02	1	HBC	CTR Freshwater Acute
Sodium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Specific Conductance	10/17/2004	4/25/2006	14	14	µmhos/cm	AD	AD	NA	NA
Streptococcus Fecal	10/17/2004	4/25/2006	14	14	MPN/100ml	AD	AD	NA	NA
Sulphate	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Thorium Dissolved	1/25/2005	2/21/2006	14	4	µg/L	1	1	NA	NA
Total Coliform	1/25/2005	2/21/2006	99	99	MPN/100ml	AD	AD	NA	NA
Total Dissolved Solids	10/17/2004	10/9/2013	18	18	mg/L	AD	AD	NA	NA
Total Organic Carbon	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Total Phenols	10/17/2004	4/25/2006	14	1	µg/L	100	100	4600000	CTR HH Organism
Total Settleable Solids	1/25/2013	11/20/2013	5	5	ml/l	AD	AD	NA	NA
Total Suspended Solids	10/17/2004	10/9/2013	18	18	mg/L	AD	AD	NA	NA
TPH	10/17/2004	3/17/2005	7	1	mg/L	1	1	NA	NA
Turbidity	10/17/2004	4/25/2006	14	14	NTU	AD	AD	NA	NA
Volatile Suspended Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA

NA – No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

Sepulveda Channel - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Alkalinity	10/17/2004	4/25/2006	14	14	mg/L	NA	NA	NA	NA
Aluminum Dissolved	10/17/2004	4/25/2006	14	2	µg/L	100	100	NA	NA
Aluminum Total	10/17/2004	4/25/2006	14	13	µg/L	100	100	NA	NA
Ammonia-N	10/17/2004	10/15/2009	35	35	mg/L	AD	AD	HBC	BP 30-day Chronic early life stage fish present
Antimony Dissolved	10/17/2004	4/25/2006	28	17	µg/L	2	5	NA	NA
Antimony Total	10/17/2004	4/25/2006	28	20	µg/L	2	2	4300	CTR HH Organism
Arsenic Dissolved	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	150	CTR Freshwater Chronic
Arsenic Total	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	150	CTR Freshwater Chronic
Barium Dissolved	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	NA	NA
Barium Total	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	NA	NA
Bicarbonate	10/17/2004	12/5/2004	4	4	µg/L	AD	AD	NA	NA
BOD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Boron Dissolved	10/17/2004	3/17/2005	7	5	mg/L	0.1	0.1	NA	NA
Boron Total	10/17/2004	3/17/2005	7	6	mg/L	0.1	0.1	NA	NA
Cadmium Dissolved	10/17/2004	12/5/2010	74	40	µg/L	0.01	1	HBC	CTR Freshwater Acute/Chronic
Cadmium Total	10/17/2004	12/5/2010	74	50	µg/L	0.01	1	HBC	CTR Freshwater Acute/Chronic
Calcium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Chloride Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Chlorpyrifos	10/17/2004	4/25/2006	14	1	µg/L	0.05	0.05	0.041	USEPA Freshwater Chronic
Chromium Dissolved	10/17/2004	1/8/2009	60	58	µg/L	0.21	5	HBC	CTR Freshwater Acute/Chronic
Chromium Total	10/17/2004	1/8/2009	60	60	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Cobalt Dissolved	1/25/2005	2/21/2006	14	14	µg/L	AD	AD	NA	NA
Cobalt Total	1/25/2005	2/21/2006	14	14	µg/L	AD	AD	NA	NA
COD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Enterococcus	1/17/2002	1/8/2009	99	98	MPN/100ml	10	10	NA	NA
Fecal Coliform	10/17/2004	10/25/2012	188	187	MPN/100ml	20	20	NA	NA
Fluoride	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Hardness	10/17/2004	10/9/2013	132	132	mg/L	AD	AD	NA	NA
Iron Dissolved	10/17/2004	4/25/2006	14	8	µg/L	100	100	NA	NA
Iron Total	10/17/2004	4/25/2006	14	14	µg/L	AD	AD	NA	NA
Kjeldahl-N	10/17/2004	4/25/2006	14	14	mg/L	NA	NA	NA	NA
Lead Dissolved	10/17/2004	9/17/2013	126	100	µg/L	0.01	5	HBC	CTR Freshwater Acute/Chronic
Magnesium Total	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Manganese Dissolved	10/17/2004	3/17/2005	7	4	µg/L	30	30	NA	NA
Manganese Total	10/17/2004	3/17/2005	7	6	µg/L	30	30	NA	NA
MBAS	10/17/2004	4/25/2006	14	10	µg/L	50	50	NA	NA
Mercury Dissolved	10/17/2004	4/25/2006	28	1	µg/L	0.022	1	NA	NA
Mercury Total	10/17/2004	4/25/2006	28	4	µg/L	0.022	1	0.051	CTR HH Organism

Sepulveda Channel - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Nickel Dissolved	10/17/2004	1/8/2009	60	60	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Nickel Total	10/17/2004	1/8/2009	60	60	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Nitrate	10/17/2004	4/25/2006	14	13	mg/L	0.1	0.1	NA	NA
Nitrate-N	10/17/2004	4/25/2006	14	13	mg/L	0.5	0.5	NA	NA
Nitrite-N	10/17/2004	4/25/2006	14	5	mg/L	0.03	0.03	NA	NA
Oil and Grease	10/17/2004	4/25/2006	14	1	mg/L	1	1	NA	NA
Oxygen Dissolved	10/17/2004	4/25/2006	13	13	mg/L	AD	AD	5	BP Single sample minimum
Petroleum Hydrocarbons Total	10/17/2005	4/25/2006	7	3	mg/L	1	1	NA	NA
Phosphorus Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Phosphorus-Dissolved	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Potassium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Pyrene	10/17/2004	4/25/2006	14	1	µg/L	0.05	0.05	11000	CTR HH Organism
Selenium Dissolved	10/17/2004	1/8/2009	61	55	µg/L	5	5	NA	NA
Silver Dissolved	10/17/2004	12/5/2010	74	31	µg/L	0.02	1	HBC	CTR Freshwater Acute
Silver Total	10/17/2004	12/5/2010	74	37	µg/L	0.02	1	HBC	CTR Freshwater Acute
Sodium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Specific Conductance	10/17/2004	4/25/2006	14	14	µmhos/cm	AD	AD	NA	NA
Streptococcus Fecal	10/17/2004	4/25/2006	14	14	MPN/100ml	AD	AD	NA	NA
Sulphate	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Temperature	5/14/2009	10/15/2009	22	22	°C	AD	AD	26.7	BP WARM Above 27 °C (80 °F)
Thorium Dissolved	1/25/2005	2/21/2006	14	4	µg/L	1	1	NA	NA
Thorium Total	1/25/2005	2/21/2006	14	2	µg/L	1	1	NA	NA
Total Coliform	1/17/2002	1/8/2009	99	99	MPN/100ml	AD	AD	NA	NA
Total Dissolved Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Total Organic Carbon	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Total Phenols	10/17/2004	4/25/2006	14	1	µg/L	100	100	4600000	CTR HH Organism
Total Suspended Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Turbidity	10/17/2004	4/25/2006	14	14	NTU	AD	AD	NA	NA
Volatile Suspended Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
NA – No Available adopted water quality objective									
HBC – Hardness Based Criteria, as defined by CTR									
AD - All values reported detected, no detection limit provided									

Benedict Canyon Channel - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Alkalinity	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Aluminum Total	10/17/2004	4/25/2006	14	14	µg/L	AD	AD	NA	NA
Ammonia-N	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	HBC	BP 30-day Chronic early life stage fish present
Antimony Dissolved	10/17/2004	4/25/2006	28	18	µg/L	2	5	NA	NA
Antimony Total	10/17/2004	4/25/2006	28	16	µg/L	2	5	4300	CTR HH Organism
Arsenic Dissolved	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	150	CTR Freshwater Chronic
Arsenic Total	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	150	CTR Freshwater Chronic
Barium Dissolved	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	NA	NA
Barium Total	10/17/2004	1/8/2009	62	62	µg/L	AD	AD	NA	NA
Bicarbonate	10/17/2004	12/5/2004	4	4	µg/L	AD	AD	NA	NA
BOD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Boron Dissolved	10/17/2004	3/17/2005	7	5	mg/L	0.1	0.1	NA	NA
Boron Total	10/17/2004	3/17/2005	7	6	mg/L	0.1	0.1	NA	NA
Cadmium Dissolved	10/17/2004	1/8/2009	62	38	µg/L	0.3	1	HBC	CTR Freshwater Acute/Chronic
Cadmium Total	10/17/2004	1/8/2009	62	52	µg/L	0.3	1	HBC	CTR Freshwater Acute/Chronic
Calcium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Chloride Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Chromium Dissolved	10/17/2004	1/8/2009	60	60	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Chromium Total	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Cobalt Dissolved	1/25/2005	2/21/2006	14	8	µg/L	0.2	0.2	NA	NA
Cobalt Total	1/25/2005	2/21/2006	14	11	µg/L	0.2	0.2	NA	NA
COD	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Cyanide Total	10/17/2004	4/25/2006	15	4	mg/L	10	10	5.2 – 22	CTR Freshwater Chronic/ Acute
Enterococcus	1/17/2002	1/8/2009	100	100	MPN/100ml	AD	AD	NA	NA
Fecal Coliform	10/17/2004	10/25/2012	189	188	MPN/100ml	20	20	NA	NA
Fluoride	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Hardness	10/17/2004	1/8/2009	62	62	mg/L	AD	AD	NA	NA
Iron Dissolved	10/17/2004	4/25/2006	14	5	µg/L	100	100	NA	NA
Iron Total	10/17/2004	4/25/2006	14	13	µg/L	100	100	NA	NA
Kjeldahl-N	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Lead Dissolved	10/17/2004	1/8/2009	62	39	µg/L	1	5	HBC	CTR Freshwater Acute/Chronic
Lead Total	10/17/2004	1/8/2009	62	58	µg/L	1	1.1	HBC	CTR Freshwater Acute/Chronic
Magnesium Total	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Manganese Dissolved	10/17/2004	3/17/2005	7	1	µg/L	30	30	NA	NA
Manganese Total	10/17/2004	3/17/2005	7	5	µg/L	30	30	NA	NA
MBAS	10/17/2004	4/25/2006	14	8	µg/L	50	50	NA	NA
Mercury Dissolved	10/17/2004	4/25/2006	28	1	µg/L	0.022	1	NA	NA
Nickel Dissolved	10/17/2004	1/8/2009	60	60	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic

Benedict Canyon Channel - Constituents that have been detected but do not exceed relevant water quality objective									
Constituent	Date Range of Available Data		N	N detects	Units	Detection Limits		WQO	Source of Lowest Water Quality Objective (WQO) Value
						Min	Max		
Nickel Total	10/17/2004	1/8/2009	61	61	µg/L	AD	AD	HBC	CTR Freshwater Acute/Chronic
Nitrate	10/17/2004	4/25/2006	14	13	mg/L	0.1	0.1	NA	NA
Nitrate-N	10/17/2004	4/25/2006	14	13	mg/L	0.5	0.5	NA	NA
Nitrite-N	10/17/2004	4/25/2006	14	5	mg/L	0.03	0.03	NA	NA
Oil and Grease	10/17/2004	4/25/2006	15	3	mg/L	1	1	NA	NA
Oxygen Dissolved	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	5	BP Single sample minimum
Petroleum Hydrocarbons Total	10/17/2005	4/25/2006	8	2	mg/L	1	1	NA	NA
pH	10/17/2004	4/25/2006	14	14	pH Units	AD	AD	6.5-8.5	BP Minimum/Maximum
Phenanthrene	10/17/2004	4/25/2006	14	1	µg/L	0.05	0.05	NA	NA
Phosphorus Total	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Phosphorus-Dissolved	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Potassium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Selenium Dissolved	10/17/2004	1/8/2009	62	57	µg/L	5	5	NA	NA
Silver Dissolved	10/17/2004	1/8/2009	61	27	µg/L	0.06	1	HBC	CTR Freshwater Acute
Silver Total	10/17/2004	1/8/2009	62	32	µg/L	0.06	1	HBC	CTR Freshwater Acute
Sodium	10/17/2004	3/17/2005	7	7	µg/L	AD	AD	NA	NA
Specific Conductance	10/17/2004	4/25/2006	14	14	µmhos/cm	AD	AD	NA	NA
Streptococcus Fecal	10/17/2004	4/25/2006	15	15	MPN/100ml	AD	AD	NA	NA
Sulphate	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Thorium Dissolved	1/25/2005	2/21/2006	14	5	µg/L	1	1	NA	NA
Thorium Total	1/25/2005	2/21/2006	14	5	µg/L	1	1	NA	NA
Total Coliform	1/17/2002	1/8/2009	100	100	MPN/100ml	AD	AD	NA	NA
Total Dissolved Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Total Organic Carbon	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Total Phenols	10/17/2004	4/25/2006	15	1	µg/L	100	100	4600000	CTR HH Organism
Total Suspended Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
Turbidity	10/17/2004	4/25/2006	14	14	NTU	AD	AD	NA	NA
Volatile Suspended Solids	10/17/2004	4/25/2006	14	14	mg/L	AD	AD	NA	NA
NA – No Available adopted water quality objective									
HBC – Hardness Based Criteria, as defined by CTR									
AD - All values reported detected, no detection limit provided									

Appendix B Attachment 3

Water Quality Data Analysis Summary Tables for Constituents that have Exceeded Water Quality Objectives

DRAFT

Ballona Creek Estuary – Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
Silver Dissolved	Wet	8/01	4/08	16	6	µg/L	0.2	5	0.03	2	0.22	0.06	1	6%	No	NS	NS	NS	1.9	CTR Saltwater Acute
	Dry	4/01	5/10	87	16	µg/L	0.018	5	0.03	0.138	<20% Detect		0	0%	No	16	0	0%	1.9	CTR Saltwater Acute
Silver Total	Wet	8/01	4/08	16	6	µg/L	0.2	5	0.03	18	1.23	0.09	1	6%	No	NS	NS	NS	2.24	CTR Saltwater Acute
	Dry	4/01	5/10	87	17	µg/L	0.018	5	0.026	0.823	<20% Detect		0	0%	No	16	0	0%	2.24	CTR Saltwater Acute
Zinc Dissolved	Wet	8/01	4/08	16	15	µg/L	10	10	0.2	110	32.7	21.2	2	13%	Yes	NS	NS	NS	90	CTR Saltwater Acute
	Dry	4/01	5/10	86	69	µg/L	2	17.2	0.2	62	11.7	8.5	0	0%	No	16	0	0%	81	CTR Saltwater Chronic
Zinc Total	Wet	8/01	4/08	16	16	µg/L	AD	AD	6.27	245	59.0	42.3	3	19%	Yes	NS	NS	NS	95.1	CTR Saltwater Acute
	Dry	4/01	5/10	87	75	µg/L	2	17.2	0.2	113	18.6	13.6	2	2%	No	16	0	0%	85.6	CTR Saltwater Chronic
Enterococcus	Wet	8/01	3/13	72	70	MPN/100ml	10	10	10	24000	6069	2000	63	88%	Yes	37	36	97%	35	BP REC1 30 Day 5 sample average
	Dry	4/01	8/13	828	645	MPN/100ml	10	100	10	14000	562	66	497	60%	Yes	579	413	71%	35	
Total Coliform	Wet	8/01	3/13	72	72	MPN/100ml	AD	AD	410	240000	134845	155000	72	100%	Yes	29	29	100%	70	BP SHELL 30-Day Median
	Dry	4/01	8/13	828	814	MPN/100ml	67	100	100	240000	54971	13356	814	98%	Yes	515	502	99%	70	BP SHELL 30-Day Median
Dibenzo(a,h)-anthracene	Wet	NS	NS	NS	NS	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	CTR HH Organism
	Dry	2/09	5/10	16	2	µg/L	0.02	0.02	0.15	0.36	<20% Detect		2	13%	Yes	16	2	13%	0.05	CTR HH Organism
Indeno(1,2,3-cd)pyrene	Wet	NS	NS	NS	NS	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	CTR HH Organism
	Dry	2/09	5/10	16	3	µg/L	0.02	0.02	0.02	0.45	<20% Detect		2	13%	Yes	16	2	13%	0.05	CTR HH Organism
Mercury Total	Wet	8/01	2/06	10	5	µg/L	0.022	0.3	0.028	0.09	0.04	0.03	2	20%	Yes	NS	NS	NS	0.05	CTR HH Organism
	Dry	4/01	1/06	48	25	µg/L	0.02	0.3	0.023	2.67	0.11	0.03	11	23%	Yes	NS	NS	NS	0.05	CTR HH Organism
Copper Dissolved	Wet	11/01	4/08	15	11	µg/L	1.5	10	0.04	29	9.67	3.73	9	60%	Yes	NS	NS	NS	4.8	CTR Saltwater Acute
	Dry	4/01	5/10	84	59	µg/L	1	20	0.44	159	8.18	3.51	40	48%	Yes	16	1	7%	3.1	CTR Saltwater Chronic
Copper Total	Wet	11/01	4/08	16	12	µg/L	1.5	10	0.04	47	15.22	5.36	11	69%	Yes	NS	NS	NS	5.8	CTR Saltwater Acute
	Dry	4/01	5/10	86	68	µg/L	1.5	10	0.3	168	8.40	3.52	45	52%	Yes	16	1	6%	3.7	CTR Saltwater Chronic
Lead Dissolved	Wet	8/01	4/08	16	11	µg/L	1	10	0.055	11	2.23	0.73	0	0%	No	NS	NS	NS	210	CTR Saltwater Acute
	Dry	4/01	5/10	85	58	µg/L	1	26	0.053	41.6	4.66	0.90	15	18%	Yes	16	0	0%	8.1	CTR Saltwater Chronic
Lead Total	Wet	8/01	4/08	16	13	µg/L	1	5	0.055	100	15.7	2.47	0	0%	No	NS	NS	NS	220.8	CTR Saltwater Acute
	Dry	4/01	5/10	87	63	µg/L	1	26	0.055	52.6	5.76	1.49	18	21%	Yes	16	0	0%	8.5	CTR Saltwater Chronic
Nickel Dissolved	Wet	8/01	4/08	16	13	µg/L	10	20	0.1	20.1	6.15	3.80	0	0%	No	NS	NS	NS	74	CTR Saltwater Acute
	Dry	4/01	8/08	68	52	µg/L	0.24	20	0.26	35.7	6.76	4.84	15	22%	Yes	NS	NS	NS	8.2	CTR Saltwater Chronic
Nickel Total	Wet	8/01	4/08	16	14	µg/L	10	20	0.1	15.7	7.55	5.14	0	0%	No	NS	NS	NS	74.8	CTR Saltwater Acute
	Dry	4/01	8/08	70	58	µg/L	0.5	20	0.1	39	7.49	5.16	18	26%	Yes	NS	NS	NS	8.3	CTR Saltwater Chronic

Ballona Creek Reach 1 – Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
Cadmium Total	Wet	8/01	12/10	20	13	µg/L	0.01	1	0.01	7.1	1.98	0.17	1	5%	No	3	0	0%	HBC	CTR Freshwater Acute
	Dry	4/01	9/10	79	40	µg/L	0.01	1	0.01	3.92	0.25	0.06	0	0%	No	5	0	0%	HBC	CTR Freshwater Chronic
Copper Dissolved	Wet	8/01	5/13	40	39	µg/L	10	10	3.84	61	12.4	ND	26	65%	Yes	23	20	87%	HBC	CTR Freshwater Acute
													16	40%	Yes		10	43%	HBC	2013 TMDL Amendment
	Dry	4/01	9/13	105	99	µg/L	1.5	20	2.83	45	7.41	6.44	1	1%	No	33	0	0%	HBC	CTR Freshwater Chronic
													1	1%	No		0	0%	HBC	2013 TMDL Amendment
Copper Total	Wet	8/01	5/13	40	39	µg/L	10	10	4.29	356	68.2	44.6	29	73%	Yes	23	23	100%	HBC	CTR Freshwater Acute
													31	78%	Yes		22	96%	HBC	2013 TMDL Amendment
	Dry	4/01	9/13	106	103	µg/L	10	10	3.67	182	15.6	ND	9	8%	Yes	32	0	0%	HBC	CTR Freshwater Chronic
													9	8%	Yes		0	0%	HBC	2013 TMDL Amendment
Lead Dissolved	Wet	8/01	5/13	39	35	µg/L	1	10	0.055	69	2.90	0.925	1	3%	No	23	0	0%	HBC	CTR Freshwater Acute
													1	3%	No		0	0%	HBC	2013 TMDL Amendment
	Dry	4/01	9/13	107	63	µg/L	0.06	26	0.055	6	0.775	0.294	0	0%	No	33	0	0%	HBC	CTR Freshwater Chronic
													0	0%	No		0	0%	HBC	2013 TMDL Amendment
Lead Total	Wet	8/01	5/13	40	39	µg/L	10	10	0.055	175	33.4	23.7	12	30%	Yes	23	10	43%	HBC	CTR Freshwater Acute
													3	8%	No		3	13%	HBC	2013 TMDL Amendment
	Dry	4/01	9/13	106	81	µg/L	1	26	0.11	158	5.05	1.48	3	3%	No	32	0	0%	HBC	CTR Freshwater Chronic
													3	3%	No		0	0%	HBC	2013 TMDL Amendment
Selenium Total	Wet	8/01	12/10	40	37	µg/L	0.11	1	0.2	3.2	0.92	0.63	0	0%	No	23	0	0%	NA	NA
	Dry	5/01	9/13	104	100	µg/L	0.2	30	0.6	5.7	1.97	1.82	1	1%	No	33	0	0%	5	CTR Freshwater Chronic
Silver Dissolved	Wet	8/01	12/10	20	11	µg/L	0.2	5	0.02	6	0.52	0.11	2	10%	Yes	3	0	0%	HBC	CTR Freshwater Acute
	Dry	4/01	9/10	79	26	µg/L	0.02	5	0.03	3.7	0.20	0.05	0	0%	No	5	0	0%	HBC	CTR Freshwater Acute
Silver Total	Wet	8/01	12/10	20	11	µg/L	0.2	5	0.03	17	1.40	0.21	2	10%	Yes	3	0	0%	HBC	CTR Freshwater Acute
	Dry	4/01	9/10	79	32	µg/L	0.06	5	0.02	5.8	0.34	0.09	0	0%	No	5	0	0%	HBC	CTR Freshwater Acute
Zinc Total	Wet	8/01	5/13	40	40	µg/L	AD	AD	13.5	1760	293	205	27	68%	Yes	23	23	100%	HBC	CTR Freshwater Acute
													25	63%	Yes		21	91%	HBC	2013 TMDL Amendment
	Dry	4/01	9/13	106	101	µg/L	2	17.2	6.22	1420	52.5	26.2	2	2%	No	32	0	0%	HBC	CTR Freshwater Chronic
													2	2%	No		0	0%	HBC	2013 TMDL Amendment
<i>E. coli</i>	Wet	8/01	11/08	31	26	MPN/100ml	100	100	200	34000	5457	1200	26	84%	Yes	NS	NS	NS	126	BP REC1 30-Day Average
	Dry	4/01	1/09	248	200	MPN/100ml	100	1000	100	36000	1340	479	184	74%	Yes	1	0	0%	126	BP REC1 30-Day Average
Mercury Total	Wet	8/01	2/06	10	5	µg/L	0.022	0.3	0.023	0.09	0.045	0.035	3	30%	Yes	NS	NS	NS	0.05	CTR HH Organism
	Dry	4/01	1/06	48	25	µg/L	0.02	0.3	0.025	2.35	0.101	0.030	13	27%	Yes	NS	NS	NS	0.05	CTR HH Organism

NA – No Available adopted water quality objective
HBC – Hardness Based Criteria, as defined by CTR
NS – Not Sampled

Ballona Creek Reach 2 – Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
3,4 Benzo-fluoranthene	Wet	10/04	10/13	59	1	µg/L	0.1	3.33	0.26	0.26	<20% Detect		1	2%	No	39	1	100%	0.049	CTR HH Organism
	Dry	11/04	6/13	21	0	µg/L	0.1	3.33	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.049	CTR HH Organism
4,4'-DDE	Wet	11/02	10/13	55	1	µg/L	0.001	0.1	0.004	0.004	<20% Detect		1	2%	No	39	1	100%	0.00059	CTR HH Organism
	Dry	10/02	6/13	20	0	µg/L	0.004	0.1	NA	NA	<20% Detect		0	0%	No	13	0	0%	0.00059	CTR HH Organism
Ammonia-N	Wet	10/00	6/13	62	62	mg/L	AD	AD	0.1	2.64	0.595	0.388	0%	0%	No	20	0	0%	HBC	BP 1-hour Acute where salmonid fish are not present
	Dry	10/00	6/13	27	27	mg/L	AD	AD	0.0833	0.78	0.206	0.120	4%	4%	No	15	1	7%	HBC	BP 30-day Chronic early life stage fish present
Benzo(a)-anthracene	Wet	10/04	10/13	25	2	µg/L	0.1	0.14	0.14	0.14	<20% Detect		2	8%	Yes	20	2	100%	0.049	CTR HH Organism
	Dry	11/04	11/04	1	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	0.049	CTR HH Organism
Benzo(a)pyrene	Wet	11/02	10/13	66	1	µg/L	0.1	2	0.18	0.18	<20% Detect		1	2%	No	39	1	100%	0.049	CTR HH Organism
	Dry	10/02	6/13	25	0	µg/L	0.1	2	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.049	CTR HH Organism
Bis(2-Ethylhexyl) phthalate	Wet	11/02	1/13	46	3	µg/L	1	5	8.27	28.5	<20% Detect		3	7%	No	19	1	5%	5.9	CTR HH Organism
	Dry	10/02	6/13	26	2	µg/L	1	5	13.7	29.9	<20% Detect		2	8%	No	14	0	0%	5.9	CTR HH Organism
Cadmium Total	Wet	10/00	1/13	103	59	µg/L	0.08	1	0.01	6.4	0.567	0.228	2%	3%	No	26	0	0%	HBC	CTR Freshwater Acute
	Dry	10/00	6/13	196	88	µg/L	0.01	1	0.01	7.33	0.291	0.052	0%	0%	No	36	0	0%	HBC	CTR Freshwater Chronic
Chrysene	Wet	11/02	10/13	66	1	µg/L	0.1	5	0.32	0.32	<20% Detect		1	2%	No	39	1	100%	0.049	CTR HH Organism
	Dry	10/02	6/13	25	0	µg/L	0.1	5	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.049	CTR HH Organism
Copper Dissolved	Wet	10/00	5/13	97	82	µg/L	0.5	10	0.045	59.3	13.3	9.94	67	69%	Yes	64	48	75%	HBC	CTR Freshwater Acute
													53	55%	Yes		32	50%	HBC	2013 TMDL Amendment
	Dry	10/00	9/13	177	153	µg/L	0.5	10	0.6	55.1	7.65	6.52	3	2%	No	109	1	2%	HBC	CTR Freshwater Chronic
													3	2%	No		1	2%	HBC	2013 TMDL Amendment
Copper Total	Wet	10/00	5/13	141	137	µg/L	0.5	10	5.19	504	57.5	35.1	100	71%	Yes	64	60	94%	HBC	CTR Freshwater Acute
													111	79%	Yes		61	95%	HBC	2013 TMDL Amendment
	Dry	10/00	9/13	267	257	µg/L	0.5	10	2.04	358	16.1	11.2	12	4%	No	107	4	4%	HBC	CTR Freshwater Chronic
													12	4%	No		2	2%	HBC	2013 TMDL Amendment
Lead Dissolved	Wet	10/00	5/13	141	106	µg/L	0.2	10	0.055	61	4.18	1.30	2	1%	No	64	0	0%	HBC	CTR Freshwater Acute
													3	2%	No		1	2%	HBC	2013 TMDL Amendment
	Dry	10/00	9/13	266	148	µg/L	0.06	26	0.055	77	1.03	0.261	2	1%	No	108	1	1%	HBC	CTR Freshwater Chronic
													2	1%	No		1	1%	HBC	2013 TMDL Amendment
Lead Total	Wet	10/00	5/13	141	127	µg/L	0.2	10	0.055	871	34.2	12.4	15	11%	Yes	64	7	11%	HBC	CTR Freshwater Acute
													9	6%	No		5	8%	HBC	2013 TMDL Amendment
	Dry	10/00	9/13	267	199	µg/L	0.11	26	0.06	195	4.15	1.33	7	3%	No	107	2	2%	HBC	CTR Freshwater Chronic
													7	3%	No		2	2%	HBC	2013 TMDL Amendment
Indeno(1,2,3-cd)pyrene	Wet	11/02	10/13	66	10	µg/L	0.017	0.1	0.02	0.15	<20% Detect		1	2%	No	39	1	3%	0.049	CTR HH Organism
	Dry	10/02	6/13	25	0	µg/L	0.017	0.1	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.049	CTR HH Organism
Selenium Total	Wet	10/00	5/13	139	97	µg/L	0.11	5	0.2	15.2	1.26	0.792	4	3%	No	63	0	0%	5	BC Metals TMDL
	Dry	10/00	9/13	263	250	µg/L	0.2	30	0.3	8.11	2.11	1.93	3	1%	No	108	1	1%	5	CTR Freshwater Chronic
Silver Dissolved	Wet	10/00	1/13	101	21	µg/L	0.1	5	0.03	34.9	0.430	0.055	1	1%	No	25	0	0%	HBC	CTR Freshwater Acute
	Dry	10/00	6/13	193	51	µg/L	0.02	5	0.03	1	0.077	0.044	0	0%	No	34	0	0%	HBC	CTR Freshwater Acute
Silver Total	Wet	10/00	1/13	103	46	µg/L	0.1	5	0.04	35.4	0.714	0.160	2	2%	No	26	0	0%	HBC	CTR Freshwater Acute
	Dry	10/00	6/13	195	62	µg/L	0.06	5	0.02	4.65	0.144	0.064	0	0%	No	35	0	0%	HBC	CTR Freshwater Acute
Zinc Dissolved	Wet	10/00	5/13	140	132	µg/L	1	50	2.39	770	66.0	40.9	27	19%	Yes	64	19	30%	HBC	CTR Freshwater Acute

Ballona Creek Reach 2 – Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
	Dry	10/00	9/13	268	246	µg/L	1	50	1.91	196	13.8	10.8	0	0%	No	108	0	0%	HBC	CTR Freshwater Chronic
													0	0%	No		0	0%	HBC	2013 TMDL Amendment
Zinc Total	Wet	10/00	5/13	141	136	µg/L	1	50	7.56	2200	266	144	88	62%	Yes	64	61	95%	HBC	CTR Freshwater Acute
													91	65%	Yes		60	94%	HBC	2013 TMDL Amendment
	Dry	10/00	9/13	267	253	µg/L	2	50	4.37	2010	44.9	25.9	2	1%	No	107	1	1%	HBC	CTR Freshwater Chronic
2													1%	No	0		0%	HBC	2013 TMDL Amendment	
alpha-chlordane	Wet	11/02	10/13	57	1	µg/L	0.001	0.05	0.004	0.004	<20% Detect		1	2%	No	39	1	100%	0.00059	CTR HH Organism
	Dry	10/02	6/13	22	0	µg/L	0.033	0.1	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.00059	CTR HH Organism
gamma-chlordane	Wet	11/02	10/13	57	1	µg/L	0.001	0.05	0.003	0.003	<20% Detect		1	2%	No	39	1	100%	0.00059	CTR HH Organism
	Dry	10/02	6/13	22	0	µg/L	0.033	0.1	NA	NA	<20% Detect		0	0%	No	14	0	0%	0.00059	CTR HH Organism
Diazinon	Wet	10/00	1/13	61	9	µg/L	0.003	0.01	0.023	0.217	<20% Detect		2	3%	No	19	0	0%	0.17	USEPA Freshwater Acute
	Dry	10/00	6/13	26	2	µg/L	0.003	0.01	0.07	0.078	<20% Detect		0	0%	No	14	0	0%	0.17	USEPA Freshwater Chronic
Oxygen Dissolved	Wet	11/02	1/13	43	43	mg/L	AD	AD	1.3	21.7	9.89	9.79	2	5%	No	19	0	0%	5	BP Single sample
	Dry	10/02	4/13	26	26	mg/L	AD	AD	9.16	22.3	14.6	14.0	0	0%	No	15	0	0%	5	BP Single sample
Cyanide Total	Wet	10/00	1/13	56	25	mg/L	5	10	5	362	12.7	1.69	4	7%	No	19	1	5%	22	CTR Freshwater Acute
	Dry	10/02	4/13	26	2	mg/L	5	10	5	7	<20% Detect		1	4%	No	15	0	0%	5.2	CTR Freshwater Chronic
E. coli	Wet	8/01	3/13	96	86	MPN/100ml	100	1000	100	36000	7901	3150	71	74%	Yes	34	34	100%	126	BP REC1 30-Day Average
	Dry	4/01	8/13	889	798	MPN/100ml	67	1000	67	44000	1131	458	699	79%	Yes	394	318	81%	126	BP REC1 30-Day Average
Mercury Total	Wet	10/00	1/13	82	8	µg/L	0.022	1	0.054	0.498	<20% Detect		8	10%	Yes	19	0	0%	0.051	CTR HH Organism
	Dry	10/00	6/13	124	40	µg/L	0.02	1	0.02	3.59	0.091	0.018	27	22%	Yes	16	2	100%	0.051	CTR HH Organism
pH	Wet	10/00	1/13	63	63	pH Units	AD	AD	6.07	8.84	7.3	7.21	6	10%	No	20	3	15%	6.5-8.5	BP Minimum/Maximum
	Dry	10/00	6/13	29	29	pH Units	AD	AD	6.58	9.04	8.09	8.23	7	24%	Yes	17	5	29%	6.5-8.5	BP Maximum

HBC – Hardness Based Criteria, as defined by CTR
NS – Not Sampled
AD - All values reported detected, no detection limit provided

Centinela Creek – Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
4,4'-DDT	Wet	10/04	10/13	27	1	µg/L	0.001	0.1	0.139	0.139	<20% Detect		1	4%	No	16	1	100%	0.0006	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	0.0006	CTR HH Organism
Benzo(a) anthracene	Wet	10/04	10/13	22	1	µg/L	0.1	0.14	0.14	0.14	<20% Detect		1	5%	No	16	1	100%	0.049	CTR HH Organism
	Dry	11/04	11/04	1	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	0.049	CTR HH Organism
Benzo(k) fluoranthene	Wet	10/04	10/13	27	1	µg/L	0.1	0.11	0.11	0.11	<20% Detect		1	4%	No	16	1	100%	0.049	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	0.049	CTR HH Organism
Bis(2-Ethylhexyl) phthalate	Wet	10/04	2/06	11	1	µg/L	1	1	31.3	31.3	<20% Detect		1	9%	No	NS	NS	NS	5.9	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	1	1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	5.9	CTR HH Organism
Cadmium Total	Wet	10/04	5/13	38	33	µg/L	0.3	1	0.01	4.04	0.696	0.280	5%	6%	No	16	0	0%	HBC	CTR Freshwater Acute
	Dry	11/04	1/09	40	28	µg/L	0.3	1	0.01	1.4	0.269	0.086	0%	0%	No	1	0	0%	HBC	CTR Freshwater Chronic
Chrysene	Wet	10/04	10/13	27	1	µg/L	0.1	0.12	0.3	0.3	<20% Detect		1	4%	No	16	1	100%	0.049	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	No	NS	NS	NS	0.049	CTR HH Organism
Copper Dissolved	Wet	10/04	5/13	39	39	µg/L	AD	AD	3.82	43.6	13.3	11.5	24	62%	Yes	17	17	100%	HBC	CTR Freshwater Acute
													22	56%	Yes		10	59%	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	3.17	105	18.6	11.9	2	5%	No	1	0	0%	HBC	CTR Freshwater Chronic
													2	5%	No		0	0%	HBC	2013 TMDL Amendment
Copper Total	Wet	10/04	5/13	39	39	µg/L	AD	AD	5.7	449	69.6	31.7	24	74%	Yes	17	17	100%	HBC	CTR Freshwater Acute
													22	92%	Yes		16	94%	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	5	57	23.427	19.5	8	20%	Yes	1	0	0%	HBC	CTR Freshwater Chronic
													8	20%	Yes		0	0%	HBC	2013 TMDL Amendment
Silver Total	Wet	10/04	5/13	38	25	µg/L	0.2	1	0.01	1.32	0.188	0.081	2	5%	No	16	2	13%	HBC	CTR Freshwater Acute
	Dry	11/04	1/09	40	20	µg/L	0.06	1	0.03	3.25	0.172	0.067	0	0%	No	1	0	0%	HBC	CTR Freshwater Acute
Lead Total	Wet	10/04	5/13	39	39	µg/L	AD	AD	0.055	198	26.5	14	15	38%	Yes	17	9	53%	HBC	CTR Freshwater Acute
													3	8%	Yes		1	6%	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	36	µg/L	1	1.1	0.5	33.4	5.29	2.8	3	8%	Yes	1	1	100%	HBC	CTR Freshwater Chronic
													3	8%	Yes		1	100%	HBC	2013 TMDL Amendment
Zinc Dissolved	Wet	10/04	5/13	39	39	µg/L	AD	AD	4.33	264	48.7	38	18	46%	Yes	17	14	82%	HBC	CTR Freshwater Acute
													4	10%	Yes		2	12%	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	5.39	44	20.6	19.9	0	0%	No	1	0	0%	HBC	CTR Freshwater Chronic
													0	0%	No		0	0%	HBC	2013 TMDL Amendment
Zinc Total	Wet	10/04	5/13	37	37	µg/L	AD	AD	18.4	1890	265	172	25	68%	Yes	16	16	100%	HBC	CTR Freshwater Acute
													21	57%	Yes		12	75%	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	15	201	60.3	42.9	0	0%	No	1	0	0%	HBC	CTR Freshwater Chronic
													0	0%	No		0	0%	HBC	2013 TMDL Amendment
Indeno(1,2,3-cd) pyrene	Wet	10/04	10/13	27	7	µg/L	0.02	0.1	0.02	0.09	0.022	0.016	1	4%	No	16	1	6%	0.049	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	0%	NS	NS	NS	0.049	CTR HH Organism
Selenium Total	Wet	10/04	12/10	23	16	µg/L	0.2	5	0.24	3.6	0.919	0.665	0	0%	No	2	0	0%	5	BC Metals TMDL
	Dry	11/04	1/09	40	38	µg/L	0.1	0.2	0.2	10.7	1	0.648	1	3%	No	1	0	0%	5	CTR Freshwater Chronic
E. coli	Wet	2/03	11/08	14	14	MPN/100ml	AD	AD	1200	30000	7807	5900	14	100%	Yes	NS	NS	NS	126	BP REC1 30-Day Average
	Dry	1/02	1/09	71	71	MPN/100ml	AD	AD	200	100000	4314	1700	71	100%	Yes	1	1	100%	126	BP REC1 30-Day Average
4,4'-DDE	Wet	10/04	10/13	27	3	µg/L	0.001	0.1	0.002	0.003	<20% Detect		3	100%	11%	16	3	100%	0.0006	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	0.1	0.1	NA	NA	<20% Detect		0	0%	0%	NS	NS	NS	0.0006	CTR HH Organism
pH	Wet	10/04	2/06	11	11	pH Units	AD	AD	6.45	8.24	7.27	7.14	2	18%	No	NS	NS	NS	6.5-8.5	BP Minimum/Maximum
	Dry	11/04	4/06	3	3	pH Units	AD	AD	7.85	8.84	8.32	8.28	1	33%	No	NS	NS	NS	6.5-8.5	BP Maximum

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR
NS – Not Sampled
AD - All values reported detected, no detection limit provided

DRAFT

Benedict Canyon Channel - Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
Bis(2-Ethylhexyl) phthalate	Wet	10/04	2/06	11	1	µg/L	1	1	19.9	19.9	<20% Detects		1	9%	No	NS	NS	NS	5.9	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	1	1	NA	NA	<20% Detects		0	0%	No	NS	NS	NS	5.9	CTR HH Organism
Copper Dissolved	Wet	10/04	11/08	22	22	µg/L	4	4	4.8	20	10.2	9.91	1	5%	No	NS	NS	NS	HBC	CTR Freshwater Acute
													9	41%	Yes		NS	NS	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	39	39	µg/L	AD	AD	3.73	48	8.93	7.00	1	3%	No	1	0	0%	HBC	CTR Freshwater Chronic
													1	3%	No		0	0%	HBC	2013 TMDL Amendment
Copper Total	Wet	10/04	11/08	22	22	µg/L	AD	AD	9.11	137	40.2	21.2	9	41%	Yes	NS	NS	NS	HBC	CTR Freshwater Acute
													16	73%	Yes		NS	NS	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	4.68	64	22.4	16.7	7	18%	Yes	1	0	0%	HBC	CTR Freshwater Chronic
													7	18%	Yes		0	0%	HBC	2013 TMDL Amendment
Zinc Dissolved	Wet	10/04	11/08	21	21	µg/L	AD	AD	6.16	124	25.7	20	0	0%	No	NS	NS	NS	HBC	CTR Freshwater Acute
													1	5%	No		NS	NS	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	1.3	37	9.12	8.09	0	0%	No	1	0	0%	HBC	CTR Freshwater Chronic
													0	0%	No		0	0%	HBC	2013 TMDL Amendment
Zinc Total	Wet	10/04	11/08	21	21	µg/L	AD	AD	11	648	132	65.1	6	29%	Yes	NS	NS	NS	HBC	CTR Freshwater Acute
													7	33%	Yes		NS	NS	HBC	2013 TMDL Amendment
	Dry	11/04	1/09	40	40	µg/L	AD	AD	10	2090	101	34.0	1	3%	No	1	0	0%	HBC	CTR Freshwater Chronic
													1	3%	No		0	0%	HBC	2013 TMDL Amendment
Diazinon	Wet	10/04	2/06	11	5	µg/L	0.01	0.01	0.03	0.61	0.084	0.012	1	9%	No	NS	NS	NS	0.17	USEPA Freshwater Acute
	Dry	11/04	4/06	3	0	µg/L	0.01	0.01	NA	NA	<20% Detects		0	0%	0%	NS	NS	NS	0.17	USEPA Freshwater Chronic
Mercury Total	Wet	10/04	2/06	15	2	µg/L	0.022	1	0.037	0.077	<20% Detects		1	25%	7%	NS	NS	NS	0.051	CTR HH Organism
	Dry	11/04	4/06	13	1	µg/L	0.022	1	0.039	0.039	<20% Detects		0	0%	0%	NS	NS	NS	0.051	CTR HH Organism
Selenium Total	Wet	10/04	11/08	22	17	µg/L	5	5	0.8	19	3.71	2.5	3	14%	No	NS	NS	NS	5	BC Metals TMDL
	Dry	11/04	1/09	40	40	µg/L	AD	AD	1.5	6.27	2.59	2.30	1	3%	No	1	0	0%	5	CTR Freshwater Chronic
E. coli	Wet	2/03	3/13	28	27	MPN/100ml	100	100	100	49000	6426	2450	26	93%	Yes	14	14	100%	126	BP REC1 30-Day Average
	Dry	1/02	8/13	266	260	MPN/100ml	67	100	100	20000	1199	600	241	91%	Yes	196	178	91%	126	BP REC1 30-Day Average

HBC - Hardness Based Criteria, as defined by CTR
NS – Not Sampled
AD - All values reported detected, no detection limit provided

Sepulveda Channel - Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
Bis(2-Ethylhexyl) phthalate	Wet	10/04	2/06	11	1	µg/L	1	1	25.6	25.6	<20% Detect		1	9.1%	No	NS	NS	NS	5.9	CTR HH Organism
	Dry	11/04	4/06	3	0	µg/L	1	1	NA	NA	<20% Detect		0	0.0%	No	NS	NS	NS	5.9	CTR HH Organism
Copper Dissolved	Wet	10/04	5/13	47	47	µg/L	AD	AD	2.04	54.3	14.1	11.4	24	51.1%	Yes	25	22	88%	HBC	CTR Freshwater Acute
													25	53.2%	Yes		17	68%	HBC	2013 TMDL Amendment
	Dry	11/04	9/13	84	84	µg/L	AD	AD	2.24	40.3	10.2	8.10	4	4.8%	No	46	2	4%	HBC	CTR Freshwater Chronic
													4	4.8%	No		2	4%	HBC	2013 TMDL Amendment
Copper Total	Wet	10/04	5/13	47	47	µg/L	AD	AD	7.69	324	70.6	34.3	33	70.2%	Yes	25	25	100%	HBC	CTR Freshwater Acute
													45	95.7%	Yes		25	100%	HBC	2013 TMDL Amendment
	Dry	11/04	9/13	83	83	µg/L	AD	AD	2.44	189	19.2	12.2	8	9.6%	Yes	45	3	7%	HBC	CTR Freshwater Chronic
													8	9.6%	Yes		2	4%	HBC	2013 TMDL Amendment
Lead Total	Wet	10/04	5/13	47	47	µg/L	AD	AD	0.055	116	26.8	14.6	9	19.1%	Yes	25	7	28%	HBC	CTR Freshwater Acute
													3	6.4%	No		2	8%	HBC	2013 TMDL Amendment
	Dry	11/04	9/13	83	78	µg/L	0.11	1.1	0.055	53.5	2.68	1.2	1	1.3%	No	45	0	0%	HBC	CTR Freshwater Chronic
													1	1.3%	No		0	0%	HBC	2013 TMDL Amendment
Zinc Dissolved	Wet	10/04	5/13	47	47	µg/L	AD	AD	6	439	63.2	42	14	29.8%	Yes	25	13	52%	HBC	CTR Freshwater Acute
													8	17.0%	Yes		6	24%	HBC	2013 TMDL Amendment
	Dry	11/04	9/13	84	84	µg/L	AD	AD	2.63	30	10.9	10	0	0.0%	No	46	0	0%	HBC	CTR Freshwater Chronic
													0	0.0%	No		0	0%	HBC	2013 TMDL Amendment
Zinc Total	Wet	10/04	5/13	47	47	µg/L	AD	AD	13	2610	357	185	31	66.0%	Yes	25	25	100%	HBC	CTR Freshwater Acute
													30	63.8%	Yes		23	92%	HBC	2013 TMDL Amendment
	Dry	11/04	9/13	83	83	µg/L	AD	AD	3.72	712	51.6	29	1	1.2%	No	45	0	0%	HBC	CTR Freshwater Chronic
													1	1.2%	No		0	0%	HBC	2013 TMDL Amendment
Diazinon	Wet	10/04	2/06	11	4	µg/L	0.01	0.01	0.03	0.19	0.029	0.007	1	9.1%	No	NS	NS	NS	0.17	USEPA Freshwater Acute
	Dry	11/04	4/06	3	0	µg/L	0.01	0.01	NA	NA	<20% Detect		0	0%	0.0%	NS	NS	NS	0.17	USEPA Freshwater Chronic
Selenium Total	Wet	10/04	5/13	47	42	µg/L	5	5	0.14	8.7	1.33	0.6	3	7.1%	No	25	0	0%	5	BC Metals TMDL
	Dry	11/04	9/13	84	84	µg/L	AD	AD	0.44	5.81	1.55	1.26	1	1.2%	No	46	0	0%	5	CTR Freshwater Chronic
Cyanide Total	Wet	10/04	2/06	11	5	mg/L	10	10	5	46	10.3	7.34	1	9.1%	No	NS	NS	NS	22	CTR Freshwater Acute
	Dry	11/04	4/06	3	0	mg/L	10	10	NA	NA	<20% Detect		0	0%	0.0%	NS	NS	NS	5.2-23	CTR Freshwater Chronic
E. coli	Wet	2/03	3/13	28	28	MPN/100ml	AD	AD	410	44000	6910	3400	28	100.0%	Yes	14	14	100%	126	BP REC1 30-Day Average
	Dry	1/02	8/13	266	259	MPN/100ml	100	100	100	98000	2318	1100	253	95.1%	Yes	196	187	95%	126	BP REC1 30-Day Average
pH	Wet	10/04	2/06	11	11	pH Units	AD	AD	6.79	8.26	7.47	7.66	0	0.0%	No	NS	NS	NS	6.5-8.5	BP Minimum/Maximum
	Dry	11/04	10/09	25	25	pH Units	AD	AD	6.81	9.38	8.77	8.95	20	80.0%	Yes	22	0	0%	6.5-8.5	BP Maximum

HBC - Hardness Based Criteria, as defined by CTR
NS – Not Sampled
AD - All values reported detected, no detection limit provided

Del Rey Lagoon - Constituents that have been detected and have exceeded relevant water quality objective																				
Constituent	W/D	Date Range of Available Data		N	N Detects	Units	Detection Limits		Detected Values		Average	Median	N Exceed	% Exceed	Meets Listing Criteria	In Past 5 Years			WQO	Source of Lowest Water Quality Objective (WQO) Utilized
							Min	Max	Min	Max						N Sampled	N Exceed	% Exceed		
Enterococcus	Wet	2/03	10/12	25	24	MPN/100ml	10	10	10	10000	1602	190	19	76%	Yes	12	10	83%	35	BP REC1 Marine 30-Day Minimum 5 samples
	Dry	1/02	8/13	232	179	MPN/100ml	10	10	10	24000	327	20	92	40%	Yes	170	69	41%	35	
Total Coliform	Wet	2/03	10/12	25	23	MPN/100ml	100	100	500	240000	44000	13000	21	84%	Yes	12	12	83%	1000	
	Dry	1/02	8/13	232	216	MPN/100ml	67	100	67	240000	9463	1698	138	60%	Yes	170	86	51%	1000	

Appendix B Attachment 4

Sediment Quality Data Analysis Summary Tables

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Ballona Creek Sediment Data Summary																
Constituent	Date Range of Available Data		N	N detect	% Detect	Min DL	Max DL	Min Detect	Max Detect	Mean	Median	Units	N > WQO	% Exceed	Target	Target Source
Cadmium Total	9/07	10/12	42	42	100%	0.009	0.132	0.132	2.03	0.67	0.55	ug/g	4	10%	1.2	TMDL Target - Direct Effect
Copper Total	9/07	10/12	42	42	100%	0.0038	0.18	5.21	164	22.4	12.8	ug/g	6	14%	34	TMDL Target - Direct Effect
Lead Total	9/07	10/12	42	42	100%	0.1	0.19	1.47	162	22.4	15.8	ug/g	5	12%	46.7	TMDL Target - Direct Effect
Silver Total	9/07	10/12	42	23	55%	0.016	0.05	0.037	1.74	0.25	0.063	ug/g	4	10%	1	TMDL Target - Direct Effect
Zinc Total	9/07	10/12	42	42	100%	0.21	1	23	513	101	69.8	ug/g	5	12%	150	TMDL Target - Direct Effect
Summed Chlordanes	9/07	10/12	42	3	7%	0.005	0.0083	0.0064	10.5	NA	NA	ug/g	3	7%	0.0013	TMDL Target - Indirect Effect
Summed DDT	9/07	10/12	42	26	62%	0.001	0.0086	0.0011	0.0835	0.01	0.003	ug/g	24	57%	0.0019	TMDL Target - Indirect Effect
Summed PCBs - Aroclors	9/07	10/12	42	1	2%	0.005	0.0083	0.1948	0.1948	NA	NA	ug/g	1	2%	0.0032	TMDL Target - Indirect Effect
Summed PCBs - Cogeners	9/07	10/12	22	0	0%	0.005	0.001					ug/g	0	0%	0.0032	TMDL Target - Indirect Effect
Total PAHs	9/07	10/12	42	0	0%	0.0017	0.0017					ug/g	0	0%	4.022	TMDL Target - Direct Effect

Ballona Creek Suspended Sediment Data Summary																
Constituent	Date Range of Available Data		N	N detect	% Detect	Min DL	Max DL	Min Detect	Max Detect	Mean	Median	Units	N > WQO	% Exceed	Target	Target Source
Cadmium Total	2011	2013	4	4	100%	1	0.03	0.03	2.89	1.97	2.06	ug/g	3	75%	1.2	TMDL Target - Direct Effect
Copper Total	2011	2013	4	4	100%	1	0.04	0.04	193	119	108	ug/g	4	100%	34	TMDL Target - Direct Effect
Lead Total	2011	2013	4	4	100%	0.5	0.19	0.19	102	51.0	40.3	ug/g	1	25%	46.7	TMDL Target - Direct Effect
Silver Total	2011	2013	4	2	50%	1	0.05	0.05	0.63	NA	NA	ug/g	0	0%	1	TMDL Target - Direct Effect
Zinc Total	2011	2013	4	4	100%	2	0.61	0.61	844	505	424	ug/g	4	100%	150	TMDL Target - Direct Effect
Summed Chlordanes	2011	2013	3	3	100%	5	0.011	0.011	0.034	0.026	0.033	ug/g	3	100%	0.0013	TMDL Target - Indirect Effect
Summed DDT	2011	2013	4	4	100%	1	0.016	0.016	0.069	0.036	0.029	ug/g	4	100%	0.0019	TMDL Target - Indirect Effect
Summed PCBs - Cogeners	2011	2013	1	1	100%	0.005	0.017	0.017	0.017	NA	NA	ug/g	1	100%	0.0032	TMDL Target - Indirect Effect
Total PAHs	2011	2013	3	2	67%	0.0017	0.0017	0.003	0.153	NA	NA	ug/g	0	0%	4.022	TMDL Target - Direct Effect

Centinela Creek Suspended Sediment Data Summary													
Constituent	Date Range of Available Data	N	N detect	% Detect	Min DL	Max DL	Min Detect	Max Detect	Units	N > WQO	% Exceed	Target	Target Source
Cadmium Total	2012-13 Storm Year	1	1	100%	1	1	1.28	1.28	ug/g	1	100%	1.2	TMDL Target - Direct Effect
Copper Total		1	1	100%	1	1	69.2	69.2	ug/g	1	100%	34	TMDL Target - Direct Effect
Lead Total		1	1	100%	0.5	0.5	26.2	26.2	ug/g	0	0%	46.7	TMDL Target - Direct Effect
Silver Total		1	1	100%	1	1	0.38	0.38	ug/g	0	0%	1	TMDL Target - Direct Effect
Zinc Total		1	1	100%	2	2	289	289	ug/g	1	100%	150	TMDL Target - Direct Effect
Summed Chlordanes		1	1	100%	5	5	0.017	0.017	ug/g	1	100%	0.0013	TMDL Target - Indirect Effect
Summed DDT		1	1	100%	1	1	0.024	0.024	ug/g	1	100%	0.0019	TMDL Target - Indirect Effect
Summed PCBs - Cogeners		1	1	100%	0.005	0.005	0.022	0.022	ug/g	1	100%	0.0032	TMDL Target - Indirect Effect
Total PAHs		1	0	0%	0.0017	0.0017			ug/g	0	0%	4.022	TMDL Target - Direct Effect

Appendix 3.C

Supporting Information for the Discharge Analysis

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Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include a characterization of stormwater and non-stormwater discharges from the MS4. A characterization was conducted on stormwater and non-stormwater discharges from the MS4 associated with constituents identified in a TMDL, a 303(d) listing, or through the receiving water data analysis described above. The following sources of discharge characterization data were reviewed:

- TMDL Staff Reports for TMDLs identified in Table 1.
- Data collected during a June 2012 bacteria snap shot event conducted along Ballona Creek and Sepulveda Channel to document the locations and bacteriological water quality of dry weather discharges.
- Data collected as part of the 2007 Southern California Coastal Water Research Project (SCCWRP) Technical Report 510 titled “Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA.”
- Land Use data collected as part of previous MS4 Permit monitoring and presented in the 2000 report titled “Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report.”

Utilizing the sources above, several tables of summary information were generated. *E. coli* concentration and loading summary statistics for dry weather discharge data collected in the Ballona Creek watershed are presented in Table 2. Tables 3 and 4 present the available average concentration of TMDL, 303(d) listed, and other constituents of interest in stormwater runoff from various land uses collected as part of County of Los Angeles stormwater program between 1996 and 2000 and SCCWRP Technical Report 510 collected between 2000 and 2005, respectively. Note that the land use data are not specific to the watershed per se; however, they are considered generally representative. Complete summary statistics for these two sources, including all measured constituents, are presented in Attachment 1.

Table 1. TMDLs Applicable to the Ballona Creek Watershed

TMDL	Regional Board Resolution Number(s)	Effective Date and/or EPA Approval Date
Ballona Creek Trash (BC Trash)	2004-023	08/11/2005
Ballona Creek Estuary Toxic Pollutants (BC Toxics TMDL)	2005-008	01/11/2006
	2013-010	Not Yet Effective
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (BC Bacteria TMDL)	2006-011	04/27/2007
	2012-008	07/02/2014
Ballona Creek Metals (BC Metals TMDL)	2007-015	10/29/2008
	2013-010	Not Yet Effective
Santa Monica Bay Nearshore and Offshore Debris (Santa Monica Bay [SMB] Trash TMDL)	2010-010	03/20/2012
Santa Monica Bay DDTs and PCBs (SMB Toxics)	NA (USEPA TMDL)	03/26/2012
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (Wetlands TMDL)		03/26/2012

Table 2. *E. coli* Characteristics in Dry Weather Storm Drain Discharges in Ballona Creek

Statistic	Flow Rate (cfs)	<i>E. coli</i> Concentration (MPN/100mL)	<i>E. coli</i> Loading Rate (10 ⁹ MPN/day)
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Count	34	34	34
Median	0.0086	310	0.13
Minimum	0.0002	10	0.0002
Maximum	5.89	14,000	162

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Table 3. Summary of Mean Concentrations of Constituents in Stormwater Runoff for Relevant Constituents by Land Use Categories Sampled by Los Angeles County Department of Public Works and Presented in the 2000 report titled “Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report

Constituents	Units	Comm	Vacant	High Density Single Family Residential	Transporta tion	Light Industrial	Educational	Multifamily Residential	Mixed Residential
Ammonia	mg/L	1.26	0.13	0.41	0.29	0.59	0.33	0.47	0.67
Cyanide		SID	SID	SID	SID	SID	SID	SID	SID
Total Suspended Solids		66	186	95	78	240	95	46	63
Dissolved Cadmium	µg/L	SID	SID	SID	SID	SID	SID	SID	SID
Total Cadmium		0.73	SID	SID	1.1	SID	SID	SID	SID
Dissolved Copper		14	SID	8.5	33	20	13	6.9	12
Total Copper		39	15	15	56	32	24	12	19
Dissolved Lead		SID	SID	SID	SID	SID	SID	SID	SID
Total Lead		18	SID	10	10	17	4.9	5.8	11
Dissolved Mercury		SID	SID	SID	SID	SID	SID	SID	SID
Total Mercury		SID	SID	SID	SID	SID	SID	SID	SID
Dissolved Nickel		SID	SID	SID	3.9	5	SID	SID	SID
Total Nickel		15	SID	SID	6	9.8	4.7	SID	SID
Dissolved Silver		SID	SID	SID	SID	SID	SID	SID	SID
Total Silver		SID	SID	SID	SID	SID	SID	SID	SID
Dissolved Zinc		152	SID	44	192	407	66	83	133
Total Zinc		241	46	79	291	639	138	146	203
Total Selenium		SID	SID	SID	SID	SID	SID	SID	SID
Bis(2-ethylhexyl) phthalate		SID	SID	SID	SID	SID	SID	SID	SID
Benzo(a)pyrene		SID	SID	SID	SID	SID	SID	SID	SID
Chrysene		SID	SID	SID	SID	SID	SID	SID	0.62
Diazinon		SID	SID	SID	SID	SID	SID	SID	SID
Dibenz(a,h)anthracene		SID	SID	SID	SID	SID	SID	SID	SID
Indeno (1,2,3-cd)pyrene		SID	SID	SID	SID	SID	SID	SID	SID
OC Pesticides & PCBs		SID	SID	SID	SID	SID	SID	SID	SID
Fecal Coliform	MPN/ 100mL	528750	1397	933333	328750	338220	SID	SID	SID
Fecal Enterococcus		86250	679	610000	32000	98200	SID	SID	SID
Total Coliform		1140000	9187	1366667	692500	454000	SID	SID	SID

SID = Statistically Invalid Data, not enough data above detection limit collected.

Table 4. Summary of Mean Concentrations of Constituents in Stormwater Runoff for Relevant Constituents by Land Use Categories Sampled by the Southern California Coastal Water Research Project (SCCWRP) as Part of Technical Report 510 titled “Sources, patterns and mechanisms of stormwater pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA.”

Constituents	Units	High Density Residential	Low Density Residential	Commercial	Industrial	Recreation	Transportation
Ammonia as N	mg/L	0.56	0.33	1.07	0.76	1.07	0.69
Total Suspended Solids		46.56	95.16	56.87	89.60	361.29	25.29
Benzo(a)pyrene	µg/L	0.160	0.051	0.141	0.063	0.031	0.028
Benzo(b)fluoranthene		0.233	0.042	0.115	0.070	0.064	0.036
Benzo(k)fluoranthene		0.143	0.042	0.135	0.045	0.020	0.027
Cadmium		0.68	0.61	1.15	1.80	0.63	0.55
Copper		24.43	32.34	41.70	72.41	32.85	20.03
Chrysene		0.206	0.060	0.141	0.135	0.066	0.054
Diazinon		0.136	0.153	SID	SID	SID	SID
Dibenz(a,h)anthracene		0.061	0.036	0.069	0.106	0.019	S.I.D
Indeno(1,2,3-c,d)pyrene		0.146	0.102	0.164	0.132	0.032	0.025
Lead		17.16	7.38	23.32	24.48	13.29	4.56
Mercury		1.01	SID	SID	SID	SID	SID
Nickel		5.68	5.75	12.29	14.92	16.19	6.31
Selenium		0.55	SID	SID	SID	SID	SID
Silver		3.08	1.63	1.30	1.04	2.27	0.20
Zinc		173	88.3	372	597	128	162
Chlordane, alpha-		0.05	SID	SID	SID	SID	SID
Chlordane, gamma-		0.04	SID	SID	SID	SID	SID
DDD(o,p')		SID	SID	SID	SID	SID	SID
DDD(p,p')		SID	SID	SID	SID	SID	SID
DDE(o,p')		SID	SID	SID	SID	SID	SID
DDE(p,p')		0.15	0.07	SID	SID	SID	SID
DDT(o,p')		SID	SID	SID	SID	SID	SID
DDT(p,p')		SID	0.00	SID	SID	SID	SID
PCB AROCLOR 1016		SID	SID	SID	SID	SID	SID
PCB AROCLOR 1221		SID	SID	SID	SID	SID	SID
PCB AROCLOR 1232		SID	SID	SID	SID	SID	SID
PCB AROCLOR 1242		SID	SID	SID	SID	SID	SID
PCB AROCLOR 1248		SID	SID	SID	SID	SID	SID

Constituents	Units	High Density Residential	Low Density Residential	Commercial	Industrial	Recreation	Transportation
PCB AROCLOR 1254		SID	SID	SID	SID	SID	SID
PCB AROCLOR 1260		SID	SID	SID	SID	SID	SID
<i>E. coli</i>	MPN/ 100mL	5615	SID	SID	SID	SID	SID
Enterococcus		24086	11963	115880	26074	110115	9022
Fecal Coliforms		12651	16968	17704	4214	387629	3091
Total Coliforms		329379	115960	528034	185664	1206826	157852

SID = Statistically Invalid Data, not enough data above detection limit collected

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Appendix 3.C Attachment 1

Summary Statistics for Land Use Runoff Water Quality Data

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Summary of Stormwater Runoff by Land Use Categories Sampled by the Southern California Coastal Water Research Project (SCCWRP) as Part of Technical Report 510 titled “Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA.”

		High Density Residential							Low Density Residential						
Parameter Code	Result Units	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Acenaphthene	ug/L	42	8	19%	0.04	0.03	0.09	0.02	27	6	22%	0.02	0.01	0.04	0.01
Acenaphthylene	ug/L	42	11	26%	0.02	0.02	0.04	0.01	27	4	15%	0.01	0.01	0.03	0.01
Aldrin	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Aluminum	ug/L	21	21	100%	720.04	237.00	2940.00	108.00	NA	NA	NA	NA	NA	NA	NA
Ammonia as N	mg/L	62	57	92%	0.56	0.49	1.34	0.09	37	29	78%	0.33	0.34	0.57	0.07
Anthracene	ug/L	42	22	52%	0.06	0.03	0.20	0.01	27	10	37%	0.02	0.02	0.05	0.00
Antimony	ug/L	21	12	57%	0.94	0.83	1.48	0.63	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	66	62	94%	1.79	1.40	3.27	0.93	37	30	81%	2.75	2.25	3.82	1.55
Barium	ug/L	21	21	100%	64.61	11.50	140.00	7.35	NA	NA	NA	NA	NA	NA	NA
Benz(a)anthracene	ug/L	42	30	71%	0.15	0.06	0.57	0.01	27	15	56%	0.03	0.01	0.12	0.00
Benzo(a)pyrene	ug/L	42	30	71%	0.16	0.08	0.56	0.01	27	13	48%	0.05	0.02	0.19	0.01
Benzo(b)fluoranthene	ug/L	42	32	76%	0.23	0.13	0.72	0.01	27	18	67%	0.04	0.02	0.14	0.01
Benzo(e)pyrene	ug/L	42	31	74%	0.18	0.11	0.65	0.02	27	16	59%	0.06	0.02	0.27	0.01
Benzo(g,h,i)perylene	ug/L	42	22	52%	0.27	0.22	0.70	0.03	27	15	56%	0.07	0.02	0.28	0.01
Benzo(k)fluoranthene	ug/L	42	30	71%	0.14	0.08	0.53	0.02	27	17	63%	0.04	0.01	0.15	0.00
Beryllium	ug/L	21	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	42	20	48%	0.03	0.02	0.05	0.01	27	8	30%	0.03	0.01	0.12	0.01
Bolstar	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	66	27	41%	0.68	0.50	1.51	0.20	37	14	38%	0.61	0.40	1.49	0.20
Chlordane, alpha-	ug/L	33	2	6%	0.05	0.05	NA	NA	16	0	0%	NA	NA	NA	NA
Chlordane, gamma-	ug/L	33	2	6%	0.04	0.04	NA	NA	16	0	0%	NA	NA	NA	NA
Chlorpyrifos	ug/L	26	0	0%	NA	NA	NA	NA	7	0	0%	NA	NA	NA	NA
Chromium	ug/L	66	56	85%	5.17	3.51	14.55	1.40	37	24	65%	8.27	5.00	19.48	2.31
Chrysene	ug/L	42	39	93%	0.21	0.06	0.78	0.01	27	21	78%	0.06	0.03	0.15	0.01
Cobalt	ug/L	21	8	38%	1.90	1.58	4.12	0.54	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	66	66	100%	24.43	15.85	60.07	5.35	37	37	100%	32.34	20.00	77.26	8.82
DDD(o,p')	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
DDD(p,p')	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
DDE(o,p')	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
DDE(p,p')	ug/L	33	4	12%	0.15	0.16	0.18	0.10	16	1	6%	0.07	0.07	NA	NA
DDT(o,p')	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
DDT(p,p')	ug/L	33	0	0%	NA	NA	NA	NA	16	1	6%	0.00	0.00	NA	NA
Demeton-S	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazinon	ug/L	26	7	27%	0.14	0.14	0.17	0.10	7	4	57%	0.15	0.16	0.24	0.06
Dibenz(a,h)anthracene	ug/L	42	16	38%	0.06	0.06	0.13	0.01	27	5	19%	0.04	0.01	0.09	0.01
Dibenzothiophene	ug/L	19	10	53%	0.02	0.01	0.06	0.01	NA	NA	NA	NA	NA	NA	NA
Dichlorvos	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Dimethoate	ug/L	26	0	0%	NA	NA	NA	NA	6	1	17%	0.05	0.05	NA	NA
Dimethylnaphthalene, 2,6-	ug/L	42	13	31%	0.03	0.02	0.06	0.01	27	5	19%	0.02	0.02	0.05	0.01
Disulfoton	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E Coli	mpn/100mL	24	24	100%	5614.58	3210.00	23744.00	698.50	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Endosulfan II	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA

		High Density Residential							Low Density Residential						
Parameter Code	Result Units	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Endosulfan Sulfate	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Endrin	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Endrin Aldehyde	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Endrin Ketone	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Enterococcus	mpn/100mL	72	72	100%	24086.48	8527.00	43019.00	1107.30	42	42	100%	11962.52	6394.00	33414.60	3597.00
Ethoprop	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliforms	mpn/100mL	47	47	100%	12650.56	3654.00	33017.51	158.20	42	42	100%	16967.71	2120.00	29433.50	558.70
Fenchlorphos	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fensulfothion	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fenthion	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	42	42	100%	0.34	0.09	1.04	0.02	27	26	96%	0.09	0.04	0.28	0.02
Fluorene	ug/L	42	11	26%	0.03	0.03	0.08	0.01	27	8	30%	0.02	0.02	0.03	0.01
HCH, alpha	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
HCH, beta	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
HCH, delta	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
HCH, gamma	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Heptachlor	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Hexachlorobenzene	ug/L	7	0	0%	NA	NA	NA	NA	10	2	20%	0.03	0.03	NA	NA
Indeno(1,2,3-c,d)pyrene	ug/L	42	24	57%	0.15	0.10	0.50	0.01	27	8	30%	0.10	0.04	0.40	0.01
Iron	ug/L	66	64	97%	1271.94	430.00	5269.00	120.00	37	37	100%	1996.38	1060.00	4562.00	332.00
Lead	ug/L	66	66	100%	17.16	6.85	64.63	1.60	37	37	100%	7.38	3.40	15.44	1.46
Malathion	ug/L	26	3	12%	0.12	0.11	0.15	0.10	7	4	57%	0.09	0.08	0.14	0.06
Manganese	ug/L	21	20	95%	49.85	17.05	166.15	5.01	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	21	1	5%	1.01	1.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Merphos	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Methylnaphthalene, 1-	ug/L	42	19	45%	0.04	0.02	0.10	0.01	27	14	52%	0.01	0.01	0.03	0.00
Methylnaphthalene, 2-	ug/L	42	24	57%	0.04	0.03	0.11	0.01	27	14	52%	0.02	0.01	0.06	0.00
Methylphenanthrene, 1-	ug/L	42	19	45%	0.03	0.02	0.10	0.01	27	8	30%	0.03	0.01	0.08	0.01
Mevinphos	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mirex	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Molybdenum	ug/L	21	21	100%	1.25	1.13	2.30	0.72	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	42	19	45%	0.04	0.04	0.10	0.01	27	18	67%	0.02	0.01	0.06	0.01
Nickel	ug/L	66	51	77%	5.68	5.40	12.95	1.13	37	18	49%	5.75	5.65	8.58	3.03
Nitrate + Nitrite as N	mg/L	29	29	100%	0.52	0.45	1.12	0.07	22	22	100%	0.25	0.24	0.33	0.19
Nitrate as N	MG/L	38	35	92%	0.32	0.27	0.68	0.07	17	16	94%	0.13	0.11	0.24	0.07
Nitrite as N	mg/L	26	7	27%	0.36	0.06	1.38	0.04	7	2	29%	0.04	0.04	NA	NA
Nitrogen, Total Kjeldahl	mg/L	62	62	100%	2.36	1.70	6.00	0.70	37	37	100%	1.86	1.00	4.56	0.30
Nonachlor, trans-	ug/L	33	4	12%	0.05	0.05	0.06	0.03	16	0	0%	NA	NA	NA	NA
Oxychlordane	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Parathion, methyl	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 018	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 028	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 031	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 033	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 037	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA

		High Density Residential							Low Density Residential						
Parameter Code	Result Units	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
PCB 044	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 049	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 052	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 066	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 070	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 074	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 077	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 081	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 087	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 095	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 097	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 099	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 101	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 105	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 110	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 114	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 118	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 119	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 123	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 126	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 128	ug/L	7	0	0%	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB 128/167	ug/L	26	0	0%	NA	NA	NA	NA	4	0	0%	NA	NA	NA	NA
PCB 132/168	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 138	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 141	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 149	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 151	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 153	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 156	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 157	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 158	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 167	ug/L	7	0	0%	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB 169	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 170	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 177	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 180	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 183	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 187	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 189	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 194	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 200	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 201	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB 206	ug/L	33	0	0%	NA	NA	NA	NA	14	0	0%	NA	NA	NA	NA
PCB AROCLOR 1016	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1221	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1232	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1242	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Parameter Code	Result Units	High Density Residential							Low Density Residential						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
PCB AROCLOR 1248	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1254	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1260	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perylene	ug/L	42	17	40%	0.08	0.04	0.25	0.01	27	6	22%	0.02	0.02	0.04	0.01
Phenanthrene	ug/L	42	40	95%	0.27	0.08	0.57	0.02	27	27	100%	0.07	0.04	0.17	0.02
Phorate	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphate as P	MG/L	40	32	80%	0.19	0.13	0.43	0.06	22	21	95%	0.09	0.09	0.11	0.06
Phosphorus as P	mg/l	35	17	49%	0.78	0.55	2.22	0.30	17	10	59%	0.71	0.64	0.99	0.57
Pyrene	ug/L	42	41	98%	0.33	0.08	0.98	0.02	27	27	100%	0.09	0.04	0.27	0.01
Selenium	ug/L	21	4	19%	0.55	0.54	0.62	0.50	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	66	16	24%	3.08	0.70	11.25	0.24	37	7	19%	1.63	1.20	3.75	0.25
Strontium	ug/L	21	21	100%	43.62	30.00	81.60	24.70	NA	NA	NA	NA	NA	NA	NA
Tetrachlorvinphos	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	21	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	21	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Titanium	ug/L	21	21	100%	33.61	11.50	141.00	5.39	NA	NA	NA	NA	NA	NA	NA
Tokuthion	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Coliforms	mpn/100mL	72	72	100%	329379	79305	1299700	10860	42	42	100%	115960	50660	594240	15815
Total Suspended Solids	mg/L	62	60	97%	46.56	18.00	162.05	3.96	38	38	100%	95.16	36.00	220.65	7.51
Toxaphene	ug/L	33	0	0%	NA	NA	NA	NA	16	0	0%	NA	NA	NA	NA
Trichloronate	ug/L	19	0	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 1,6,7-	ug/L	19	11	58%	0.04	0.03	0.06	0.01	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 2,3,5-	ug/L	23	3	13%	0.04	0.03	0.06	0.03	27	12	44%	0.04	0.03	0.08	0.01
Vanadium	ug/L	21	21	100%	4.56	2.65	11.60	2.05	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	66	66	100%	173.22	149.50	580.00	23.77	37	37	100%	88.27	66.00	155.40	31.20

ParameterCode	ResultUnits	Commercial							Industrial						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Acenaphthene	ug/L	38	2	5%	0.03	0.03	NA	NA	39	4	10%	0.06	0.06	0.09	0.02
Acenaphthylene	ug/L	38	2	5%	0.03	0.03	NA	NA	39	14	36%	0.04	0.03	0.09	0.01
Aldrin	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia as N	mg/L	47	44	94%	1.07	0.58	4.72	0.25	55	55	100%	0.76	0.45	2.15	0.23
Anthracene	ug/L	39	14	36%	0.03	0.02	0.07	0.01	39	20	51%	0.03	0.02	0.11	0.00
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	47	34	72%	2.14	1.80	5.18	1.00	55	50	91%	2.91	2.05	4.80	1.05
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benz(a)anthracene	ug/L	39	23	59%	0.06	0.01	0.25	0.00	39	28	72%	0.05	0.01	0.26	0.01
Benzo(a)pyrene	ug/L	38	14	37%	0.14	0.10	0.46	0.01	39	16	41%	0.06	0.03	0.21	0.01
Benzo(b)fluoranthene	ug/L	38	19	50%	0.11	0.06	0.40	0.01	39	18	46%	0.07	0.02	0.26	0.01
Benzo(e)pyrene	ug/L	39	21	54%	0.14	0.04	0.52	0.01	39	18	46%	0.08	0.03	0.28	0.01
Benzo(g,h,i)perylene	ug/L	38	21	55%	0.19	0.08	0.78	0.02	39	21	54%	0.11	0.05	0.29	0.02
Benzo(k)fluoranthene	ug/L	38	16	42%	0.14	0.11	0.43	0.01	39	18	46%	0.04	0.02	0.21	0.01
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ParameterCode	ResultUnits	Commercial							Industrial						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Biphenyl	ug/L	38	15	39%	0.06	0.04	0.15	0.02	39	16	41%	0.04	0.04	0.08	0.00
Bolstar	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	47	29	62%	1.15	0.90	3.92	0.24	55	49	89%	1.80	2.10	4.50	0.30
Chlordane, alpha-	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Chlordane, gamma-	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Chlorpyrifos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	47	26	55%	6.40	3.50	26.00	1.92	55	55	100%	6.54	5.15	14.30	2.27
Chrysene	ug/L	39	28	72%	0.14	0.05	0.51	0.01	39	33	85%	0.13	0.07	0.57	0.02
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	47	47	100%	41.70	18.00	165.20	7.46	55	55	100%	72.41	40.50	243.00	7.90
DDD(o,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
DDD(p,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
DDE(o,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
DDE(p,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
DDT(o,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
DDT(p,p')	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Demeton-S	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazinon	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	38	5	13%	0.07	0.04	0.15	0.02	39	4	10%	0.11	0.11	0.18	0.03
Dibenzothiophene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorvos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylnaphthalene, 2,6-	ug/L	38	10	26%	0.20	0.05	0.70	0.03	39	9	23%	0.05	0.04	0.12	0.02
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E Coli	mpn/100mL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Endosulfan II	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Endrin	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Endrin Aldehyde	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Enterococcus	mpn/100mL	51	51	100%	115880.26	8600.00	479150.00	59.80	66	65	98%	26073.52	5200.00	74420.00	736.00
Ethoprop	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliforms	mpn/100mL	51	44	86%	17703.84	5298.50	94920.00	12.35	66	65	98%	4213.98	1733.00	15500.00	321.60
Fenchlorphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fensulfothion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fenthion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	45	40	89%	0.13	0.03	0.50	0.01	39	34	87%	0.17	0.07	0.62	0.02
Fluorene	ug/L	38	7	18%	0.09	0.06	0.18	0.03	39	9	23%	0.04	0.03	0.12	0.01
HCH, alpha	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
HCH, beta	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
HCH, delta	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
HCH, gamma	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Heptachlor	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Hexachlorobenzene	ug/L	6	0	0%	NA	NA	NA	NA	9	0	0%	NA	NA	NA	NA

ParameterCode	ResultUnits	Commercial							Industrial						
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Indeno(1,2,3-c,d)pyrene	ug/L	38	12	32%	0.16	0.11	0.54	0.02	39	3	8%	0.13	0.16	0.17	0.08
Iron	ug/L	47	47	100%	1316.38	390.00	7682.00	70.00	55	55	100%	2586.55	1320.00	8044.00	401.00
Lead	ug/L	47	47	100%	23.32	4.20	158.90	0.90	55	55	100%	24.48	19.00	62.43	6.91
Malathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Merphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Methylnaphthalene, 1-	ug/L	38	11	29%	0.10	0.03	0.33	0.01	39	19	49%	0.04	0.03	0.08	0.01
Methylnaphthalene, 2-	ug/L	38	14	37%	0.13	0.05	0.53	0.01	39	19	49%	0.06	0.05	0.14	0.02
Methylphenanthrene, 1-	ug/L	38	11	29%	0.04	0.04	0.07	0.01	39	28	72%	0.06	0.04	0.16	0.01
Mevinphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mirex	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	38	6	16%	0.07	0.04	0.18	0.01	39	19	49%	0.07	0.05	0.15	0.03
Nickel	ug/L	47	29	62%	12.29	9.50	39.00	3.22	55	52	95%	14.92	16.00	31.35	3.44
Nitrate + Nitrite as N	mg/L	33	32	97%	0.35	0.24	0.80	0.05	50	49	98%	0.32	0.29	0.84	0.04
Nitrate as N	MG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite as N	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Total Kjeldahl	mg/L	46	46	100%	2.88	1.71	7.92	0.53	55	55	100%	4.32	1.95	13.49	0.51
Nonachlor, trans-	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Oxychlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Parathion, methyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 018	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 028	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.07	0.07	NA	NA
PCB 031	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.09	0.09	NA	NA
PCB 033	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.06	0.06	NA	NA
PCB 037	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.03	0.03	NA	NA
PCB 044	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.09	0.09	NA	NA
PCB 049	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.08	0.08	NA	NA
PCB 052	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.08	0.08	NA	NA
PCB 066	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.05	0.05	NA	NA
PCB 070	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.07	0.07	NA	NA
PCB 074	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.03	0.03	NA	NA
PCB 077	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 081	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 087	ug/L	6	0	0%	NA	NA	NA	NA	19	1	5%	0.03	0.03	NA	NA
PCB 095	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.04	0.04	NA	NA
PCB 097	ug/L	6	0	0%	NA	NA	NA	NA	19	1	5%	0.07	0.07	NA	NA
PCB 099	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.02	0.02	NA	NA
PCB 101	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.06	0.06	NA	NA
PCB 105	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 110	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.08	0.08	NA	NA
PCB 114	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 118	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.07	0.07	NA	NA
PCB 119	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 123	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA

ParameterCode	ResultUnits	Commercial							Industrial						
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PCB 126	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 128	ug/L	6	0	0%	NA	NA	NA	NA	9	0	0%	NA	NA	NA	NA
PCB 128/167	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB 132/168	ug/L	6	0	0%	NA	NA	NA	NA	19	1	5%	0.01	0.01	NA	NA
PCB 138	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.08	0.08	NA	NA
PCB 141	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 149	ug/L	6	0	0%	NA	NA	NA	NA	19	1	5%	0.05	0.05	NA	NA
PCB 151	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 153	ug/L	6	0	0%	NA	NA	NA	NA	19	2	11%	0.03	0.03	NA	NA
PCB 156	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 157	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 158	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 167	ug/L	6	0	0%	NA	NA	NA	NA	9	0	0%	NA	NA	NA	NA
PCB 169	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 170	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 177	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 180	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 183	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 187	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 189	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 194	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 200	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 201	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB 206	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
PCB AROCLOR 1016	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1221	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1232	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1242	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1248	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1254	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
PCB AROCLOR 1260	ug/L	NA	NA	NA	NA	NA	NA	NA	10	0	0%	NA	NA	NA	NA
Perylene	ug/L	39	13	33%	0.06	0.03	0.20	0.01	39	11	28%	0.04	0.03	0.08	0.01
Phenanthrene	ug/L	41	32	78%	0.14	0.04	0.57	0.01	39	29	74%	0.21	0.10	0.75	0.02
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphate as P	MG/L	20	20	100%	0.08	0.08	0.14	0.05	27	27	100%	0.12	0.09	0.21	0.06
Phosphorus as P	mg/l	27	27	100%	0.99	0.50	2.77	0.22	28	28	100%	3.36	0.77	11.57	0.24
Pyrene	ug/L	42	37	88%	0.18	0.04	0.68	0.01	39	35	90%	0.20	0.10	0.68	0.02
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	47	15	32%	1.30	1.00	3.21	0.20	55	7	13%	1.04	0.70	2.99	0.20
Strontium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachlorvinphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Titanium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tokuthion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Coliforms	mpn/100mL	51	51	100%	528034	88932	2419200	3558	66	65	98%	185664	88200	876540	4021
Total Suspended Solids	mg/L	47	46	98%	56.87	26.50	275.75	9.00	57	57	100%	89.60	43.00	248.60	12.80

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Toxaphene	ug/L	6	0	0%	NA	NA	NA	NA	19	0	0%	NA	NA	NA	NA
Trichloronate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 1,6,7-	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 2,3,5-	ug/L	38	3	8%	0.22	0.20	0.32	0.15	39	7	18%	0.05	0.03	0.12	0.02
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	47	47	100%	371.98	188.00	1268.00	63.30	55	55	100%	597.47	493.50	1279.00	204.40

ParameterCode	ResultUnits	Recreation							Transportation						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Acenaphthene	ug/L	11	1	9%	0.01	0.01	NA	NA	20	1	5%	0.08	0.08	NA	NA
Acenaphthylene	ug/L	11	2	18%	0.01	0.01	NA	NA	20	0	0%	NA	NA	NA	NA
Aldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia as N	mg/L	20	20	100%	1.07	1.06	1.47	0.71	20	20	100%	0.69	0.49	1.02	0.32
Anthracene	ug/L	11	8	73%	0.01	0.01	0.03	0.01	19	7	37%	0.02	0.01	0.05	0.00
Antimony	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	ug/L	20	20	100%	4.44	4.65	5.61	2.86	20	3	15%	3.03	1.20	6.33	1.02
Barium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benz(a)anthracene	ug/L	11	2	18%	0.09	0.09	NA	NA	20	12	60%	0.02	0.02	0.04	0.01
Benzo(a)pyrene	ug/L	11	11	100%	0.03	0.02	0.10	0.01	20	11	55%	0.03	0.02	0.07	0.01
Benzo(b)fluoranthene	ug/L	11	11	100%	0.06	0.04	0.19	0.02	20	11	55%	0.04	0.02	0.09	0.01
Benzo(e)pyrene	ug/L	11	11	100%	0.04	0.02	0.10	0.01	20	12	60%	0.03	0.02	0.05	0.01
Benzo(g,h,i)perylene	ug/L	11	6	55%	0.03	0.02	0.05	0.01	20	12	60%	0.05	0.04	0.10	0.02
Benzo(k)fluoranthene	ug/L	11	11	100%	0.02	0.01	0.06	0.01	20	10	50%	0.03	0.02	0.05	0.01
Beryllium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biphenyl	ug/L	11	1	9%	0.01	0.01	NA	NA	20	3	15%	0.02	0.02	0.03	0.01
Bolstar	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/L	20	3	15%	0.63	0.60	0.78	0.51	20	10	50%	0.55	0.25	1.76	0.20
Chlordane, alpha-	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane, gamma-	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorpyrifos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/L	20	20	100%	15.60	13.50	27.25	8.76	20	13	65%	6.42	2.40	24.60	1.18
Chrysene	ug/L	11	11	100%	0.07	0.04	0.18	0.03	20	16	80%	0.05	0.04	0.15	0.01
Cobalt	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	20	20	100%	32.85	32.00	43.75	22.00	20	20	100%	20.03	10.50	37.00	5.96
DDD(o,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DDD(p,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DDE(o,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DDE(p,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DDT(o,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DDT(p,p')	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Demeton-S	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diazinon	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	11	1	9%	0.02	0.02	NA	NA	20	0	0%	NA	NA	NA	NA

ParameterCode	ResultUnits	Recreation							Transportation						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
Dibenzothiophene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorvos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethoate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylnaphthalene, 2,6-	ug/L	11	0	0%	NA	NA	NA	NA	20	1	5%	0.05	0.05	NA	NA
Disulfoton	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E Coli	mpn/100mL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Enterococcus	mpn/100mL	24	24	100%	110114.50	54850.00	511055.00	15360.60	23	22	96%	9022.32	6107.00	23975.55	2051.45
Ethoprop	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliforms	mpn/100mL	24	24	100%	387629.33	448150.00	920250.00	813.30	23	23	100%	3091.17	1000.00	14525.40	21.00
Fenchlorphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fensulfothion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fenthion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	11	11	100%	0.11	0.08	0.25	0.06	20	20	100%	0.06	0.05	0.13	0.02
Fluorene	ug/L	11	5	45%	0.01	0.01	0.01	0.01	20	5	25%	0.03	0.03	0.04	0.02
HCH, alpha	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HCH, beta	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HCH, delta	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HCH, gamma	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	ug/L	11	7	64%	0.03	0.02	0.08	0.01	20	4	20%	0.02	0.02	0.04	0.01
Iron	ug/L	20	20	100%	12666.00	11200.00	20580.00	6651.50	20	17	85%	377.65	310.00	980.00	38.00
Lead	ug/L	20	20	100%	13.29	11.65	21.95	7.81	20	20	100%	4.56	3.25	8.23	1.59
Malathion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Merphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylnaphthalene, 1-	ug/L	11	0	0%	NA	NA	NA	NA	20	1	5%	0.18	0.18	NA	NA
Methylnaphthalene, 2-	ug/L	11	2	18%	0.01	0.01	NA	NA	20	1	5%	0.31	0.31	NA	NA
Methylphenanthrene, 1-	ug/L	11	6	55%	0.01	0.01	0.02	0.01	20	8	40%	0.03	0.02	0.07	0.01
Mevinphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mirex	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	11	0	0%	NA	NA	NA	NA	20	2	10%	0.29	0.29	NA	NA
Nickel	ug/L	20	20	100%	16.19	15.00	25.15	10.94	20	10	50%	6.31	3.25	19.71	2.23
Nitrate + Nitrite as N	mg/L	20	20	100%	1.05	1.00	2.09	0.06	21	18	86%	0.25	0.12	0.64	0.02
Nitrate as N	MG/L	23	23	100%	0.99	0.98	1.74	0.02	NA	NA	NA	NA	NA	NA	NA
Nitrite as N	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ParameterCode	ResultUnits	Recreation							Transportation						
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Nitrogen, Total Kjeldahl	mg/L	20	20	100%	7.11	7.30	9.98	2.37	20	20	100%	2.27	1.20	3.48	0.58
Nonachlor, trans-	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxychlordane	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Parathion, methyl	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 018	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 028	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 031	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 033	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 037	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 044	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 049	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 052	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 066	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 070	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 074	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 077	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 081	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 087	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 095	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 097	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 099	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 101	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 105	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 110	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 114	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 119	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 123	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 128	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 128/167	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 132/168	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 138	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 141	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 149	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 151	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 153	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 158	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 170	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 177	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 180	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 183	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 187	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ParameterCode	ResultUnits	Recreation							Transportation						
		No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile	No. of Samples	No. of Detects	Percent Detects	Mean of Detects	Median of Detects	Upper 95th Percentile	Lower 95th Percentile
PCB 189	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 194	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 201	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 206	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1016	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1221	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1232	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1242	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1248	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1254	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB AROCLOR 1260	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perylene	ug/L	11	6	55%	0.02	0.01	0.03	0.01	20	4	20%	0.02	0.02	0.04	0.01
Phenanthrene	ug/L	11	11	100%	0.05	0.03	0.10	0.02	20	19	95%	0.07	0.05	0.18	0.02
Phorate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphate as P	MG/L	44	44	100%	2.45	0.66	6.84	0.02	10	10	100%	0.03	0.03	0.05	0.02
Phosphorus as P	mg/l	NA	NA	NA	NA	NA	NA	NA	10	10	100%	0.71	0.53	1.78	0.31
Pyrene	ug/L	11	11	100%	0.09	0.06	0.22	0.05	20	20	100%	0.07	0.07	0.20	0.02
Selenium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	20	6	30%	2.27	1.80	4.52	0.83	20	2	10%	0.20	0.20	NA	NA
Strontium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachlorvinphos	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Titanium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tokuthion	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Coliforms	mpn/100mL	24	24	100%	1206826	701550	1705900	11188	23	23	100%	157852	25000	685060	4377
Total Suspended Solids	mg/L	17	17	100%	361.29	300.00	1078.80	131.20	20	17	85%	25.29	18.00	69.60	8.40
Toxaphene	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloronate	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 1,6,7-	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trimethylnaphthalene, 2,3,5-	ug/L	11	0	0%	NA	NA	NA	NA	20	2	10%	0.03	0.03	NA	NA
Vanadium	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	20	20	100%	128.45	125.00	181.55	77.60	20	20	100%	162.30	93.50	311.50	57.45

Notes
NA = Not enough data above detection limit collected to develop summary statistics.

Summary of Stormwater Runoff by Land Use Categories Sampled by Los Angeles County Department of Public Works and Presented in the 2000 report titled “Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report

Constituents	Data Included Since ^a	DL	Units	Commercial						Vacant					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Cyanide	96	0.01	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	15	15	0	S.I.D.	S.I.D.	S.I.D.
TPH	94	1	mg/l	8	2	75	3.1	2.9	0.63	21	19	10	S.I.D.	S.I.D.	S.I.D.
Oil and Grease	94	1	mg/l	8	1	88	3.3	2.9	0.51	21	17	19	S.I.D.	S.I.D.	S.I.D.
Total Phenols	94	0.1	mg/l	8	8	0	S.I.D.	S.I.D.	S.I.D.	21	21	0	S.I.D.	S.I.D.	S.I.D.
Total Coliform	94	20	MPN/100ml	8	0	100	1,140,000	1,250,000	0.71	21	1	95	9,187	2,200	1.25
Fecal Coliform	94	20	MPN/100ml	8	0	100	528,750	90,000	1.35	21	2	90	1,397	500	2.6
Ratio Fecal Coliform/Total Coliform	94			0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	0	100	52%	64%	0.79
Fecal Streptococcus	94	20	MPN/100ml	8	0	100	212,875	150,000	1.37	21	1	95	2,254	800	1.57
Fecal Enterococcus	94	20	MPN/100ml	8	0	100	86,250	40,000	1.18	21	1	95	679	500	0.98
Ammonia	94	0.1	mg/l	33	7	79	1.26	0.3	2.11	41	27	34	0.13	0.05	2.48
Calcium	96	1	mg/l	30	0	100	19	11	0.86	39	0	100	50	50	0.09
Magnesium	96	1	mg/l	30	0	100	6.8	3.9	0.92	39	0	100	15	16	0.26
Potassium	94	1	mg/l	36	0	100	4	2.8	0.81	45	0	100	2.4	2.4	0.22
Sodium	96	1	mg/l	33	0	100	37	19	1.03	45	0	100	13	14	0.2
Bicarbonate	94	2	mg/l	33	0	100	48	21	0.93	42	0	100	175	176	0.15
Carbonate	94	2	mg/l	33	33	0	S.I.D.	S.I.D.	S.I.D.	42	36	14	S.I.D.	S.I.D.	S.I.D.
Chloride	94	2	mg/l	33	0	100	50	15.8	1.28	43	0	100	6.6	6.5	0.26
Fluoride	94	0.1	mg/l	33	18	45	0.13	0.05	0.81	43	0	100	0.37	0.36	0.21
Nitrate	94	0.1	mg/l	33	1	97	2.6	2	0.63	43	0	100	5.2	4.6	0.56
Sulfate	94	0.1	mg/l	33	0	100	35	11	1.18	43	0	100	17	15	0.4
Alkalinity	94	4	mg/l	33	0	100	48	21	0.93	42	0	100	169	174	0.13
Hardness	96	2	mg/l	30	0	100	76	42	0.87	39	0	100	185	190	0.11
COD	97	5	mg/l	24	0	100	98	89	0.8	34	15	56	17	11	1.35
pH	94	0-14		33	0	100	7	6.8	0.07	42	0	100	8.1	8.1	0.03
Specific Conductance	94	1	umhos/cm	31	0	100	356	167	0.99	38	0	100	386	390	0.11
Total Dissolved Solids	96	2	mg/l	29	0	100	226	106	0.93	36	0	100	237	240	0.09
Turbidity	94	0.1	NTU	33	0	100	31	24	0.67	41	0	100	69	5.6	2.3
Total Suspended Solids	96	2	mg/l	29	0	100	66	53	0.65	39	1	97	186	18	3.27
Volatile Suspended Solids	94	1	mg/l/hr	31	0	100	32	29	0.54	41	7	83	36	12	2.48
MBAS	97	0.05	mg/l	22	11	50	0.18	0.04	1.52	30	30	0	S.I.D.	S.I.D.	S.I.D.
Total Organic Carbon	94	1	mg/l	35	0	100	10	7.3	0.74	43	0	100	5.3	3.6	0.84
BOD	94	2	mg/l	26	1	96	27	24	0.58	39	4	90	12	5	1.01
Dissolved Phosphorus	94	0.05	mg/l	33	1	97	0.3	0.19	0.86	37	21	43	0.11	0.03	3.38
Total Phosphorus	94	0.05	mg/l	32	1	97	0.39	0.28	0.77	39	16	59	0.16	0.05	2.63
NH3-N	94	0.1	mg/l	33	8	76	1.04	0.25	2.11	41	30	27	0.11	0.05	2.41
Nitrate-N	96	0.1	mg/l	31	7	77	0.48	0.43	0.82	40	1	98	1.05	0.94	0.53
Nitrite-N	94	0.1	mg/l	34	7	79	0.16	0.07	1.74	43	30	30	0.05	0.05	0.2
TKN	96	0.1	mg/l	32	0	100	3.4	2.2	0.94	40	0	100	0.79	0.68	0.6

Constituents	Data Included Since ^a	DL	Units	Commercial						Vacant					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Dissolved Aluminum	96	100	ug/L	33	24	27	241	50	3.19	42	29	31	190	50	2.39
Total Aluminum	96	100	ug/L	33	8	76	4055	295	4.87	42	13	69	1681	234	5.25
Dissolved Antimony	97	5	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Antimony	97	5	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Arsenic	97	5	ug/L	24	23	4	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Arsenic	97	5	ug/L	24	22	8	S.I.D.	S.I.D.	S.I.D.	34	32	6	S.I.D.	S.I.D.	S.I.D.
Dissolved Barium	97	10	ug/L	24	2	92	39	33	0.81	34	2	94	57	58	0.41
Total Barium	97	10	ug/L	24	2	92	114	41	2.64	34	2	94	83	62	1.59
Dissolved Beryllium	97	1	ug/L	17	17	0	S.I.D.	S.I.D.	S.I.D.	22	22	0	S.I.D.	S.I.D.	S.I.D.
Total Beryllium	97	1	ug/L	24	23	4	S.I.D.	S.I.D.	S.I.D.	34	33	3	S.I.D.	S.I.D.	S.I.D.
Dissolved Boron	97	100	ug/L	24	3	88	198	188	0.49	32	14	56	121	116	0.65
Total Boron	97	100	ug/L	24	1	96	261	254	0.41	32	8	75	178	170	0.59
Dissolved Cadmium	97	1	ug/L	24	21	13	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Cadmium	97	1	ug/L	24	19	21	0.73	0.5	0.71	34	34	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium	97	5	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium	97	5	ug/L	24	18	25	27	2.5	4.18	34	33	3	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium +6	94	10	ug/L	33	33	0	S.I.D.	S.I.D.	S.I.D.	41	41	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium +6	94	10	ug/L	33	33	0	S.I.D.	S.I.D.	S.I.D.	41	41	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Copper	97	5	ug/L	24	3	88	14	11	0.84	34	31	9	S.I.D.	S.I.D.	S.I.D.
Total Copper	97	5	ug/L	24	0	100	39	22	1.57	34	15	56	15	5.5	3.14
Dissolved Iron	94	100	ug/L	39	17	56	382	106	2.81	45	35	22	202	50	3.27
Total Iron	94	100	ug/L	40	2	95	5319	587	5.24	45	14	69	3003	233	5.23
Dissolved Lead	97	5	ug/L	24	20	17	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Lead	97	5	ug/L	24	15	38	18	2.5	2.8	34	31	9	S.I.D.	S.I.D.	S.I.D.
Dissolved Manganese	98	100	ug/L	14	14	0	S.I.D.	S.I.D.	S.I.D.	18	18	0	S.I.D.	S.I.D.	S.I.D.
Total Manganese	98	100	ug/L	14	13	7	S.I.D.	S.I.D.	S.I.D.	18	14	22	67	50	0.48
Dissolved Mercury	94	1	ug/L	37	35	5	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Total Mercury	94	1	ug/L	37	35	5	S.I.D.	S.I.D.	S.I.D.	43	42	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Nickel	97	5	ug/L	24	21	13	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Nickel	97	5	ug/L	24	16	33	15	2.5	3.69	34	29	15	S.I.D.	S.I.D.	S.I.D.
Dissolved Selenium	94	5	ug/L	40	40	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Selenium	94	5	ug/L	40	35	13	S.I.D.	S.I.D.	S.I.D.	45	44	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Silver	97	1	ug/L	24	23	4	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Silver	97	1	ug/L	24	22	8	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Thallium	97	5	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Thallium	97	5	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Zinc	94	50	ug/L	40	4	90	152	130	0.66	45	43	4	S.I.D.	S.I.D.	S.I.D.
Total Zinc	94	50	ug/L	40	0	100	241	192	0.71	45	33	27	46	25	1.67
Bis(2-ethylhexyl)phthalate	99	1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Acenaphthene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Commercial						Vacant					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Acenaphthylene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Antracene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)anthracene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)pyrene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(b)fluoranthene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(k)fluoranthene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Chrysene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Dibenz(a,h)anthracene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Fluoranthene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Fluorene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Indeno (1,2,3-cd)pyrene	99	0.1	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Naphthalene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Phenanthrene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Pyrene	99	0.05	ug/L	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
All other SVOCs	94	0.05-5.0	ug/L	23	23	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Organochlorine Pesticides & PCBs	94	0.05-1.0	ug/L	19	19	0	S.I.D.	S.I.D.	S.I.D.	38	38	0	S.I.D.	S.I.D.	S.I.D.
Carbofuran	96	5	ug/L	28	28	0	S.I.D.	S.I.D.	S.I.D.	38	38	0	S.I.D.	S.I.D.	S.I.D.
Glyphosate	98	25	ug/L	14	14	0	S.I.D.	S.I.D.	S.I.D.	18	18	0	S.I.D.	S.I.D.	S.I.D.
Diazinon	96	0.01	ug/L	24	21	13	S.I.D.	S.I.D.	S.I.D.	36	36	0	S.I.D.	S.I.D.	S.I.D.
Chlorpyrifos	96	0.05	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	36	36	0	S.I.D.	S.I.D.	S.I.D.
Thiobencarb	96	1	ug/L	24	24	0	S.I.D.	S.I.D.	S.I.D.	36	36	0	S.I.D.	S.I.D.	S.I.D.
All other N- and P- Pesticides	94	1.0-2.0	ug/L	28	28	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
2,4-D	96	10	ug/L	17	17	0	S.I.D.	S.I.D.	S.I.D.	35	35	0	S.I.D.	S.I.D.	S.I.D.
2,4,5-TP	96	1	ug/L	17	17	0	S.I.D.	S.I.D.	S.I.D.	35	35	0	S.I.D.	S.I.D.	S.I.D.
Bentazon	96	2	ug/L	17	17	0	S.I.D.	S.I.D.	S.I.D.	35	35	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Transportation						Light Industrial					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Cyanide	96	0.01	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
TPH	94	1	mg/l	4	0	100	3.1	2.8	0.47	5	1	80	1.7	1.4	0.68
Oil and Grease	94	1	mg/l	4	0	100	3.1	2.8	0.47	5	1	80	1.7	1.4	0.68
Total Phenols	94	0.1	mg/l	4	4	0	S.I.D.	S.I.D.	S.I.D.	5	5	0	S.I.D.	S.I.D.	S.I.D.
Total Coliform	94	20	MPN/100ml	4	0	100	692,500	600,000	0.82	5	0	100	454,000	160,000	1.42
Fecal Coliform	94	20	MPN/100ml	4	0	100	328,750	205,000	1.22	5	0	100	338,220	30,000	2.09
Ratio Fecal Coliform/Total Coliform	94			0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fecal Streptococcus	94	20	MPN/100ml	4	0	100	176,000	195,000	0.68	5	0	100	253,000	160,000	1.46
Fecal Enterococcus	94	20	MPN/100ml	4	0	100	32,000	32,000	0.65	5	0	100	98,200	130,000	0.73
Ammonia	94	0.1	mg/l	62	16	74	0.29	0.16	1.52	47	7	85	0.59	0.32	1.35
Calcium	96	1	mg/l	61	0	100	8.4	7.7	0.46	40	0	100	12	8.8	1.01
Magnesium	96	1	mg/l	61	4	93	1.6	1.5	0.48	40	0	100	2.3	1.9	1.13

Constituents	Data Included Since ^a	DL	Units	Transportation						Light Industrial					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Potassium	94	1	mg/l	63	2	97	2.1	1.7	0.56	50	1	98	2.7	2.2	0.59
Sodium	96	1	mg/l	62	0	100	8.3	6.4	0.81	47	0	100	14	12	0.69
Bicarbonate	94	2	mg/l	63	0	100	20	18	0.57	47	0	100	26	20	0.92
Carbonate	94	2	mg/l	63	63	0	S.I.D.	S.I.D.	S.I.D.	47	47	0	S.I.D.	S.I.D.	S.I.D.
Chloride	94	2	mg/l	64	3	95	5.6	4.4	0.82	47	0	100	12	8.6	0.8
Fluoride	94	0.1	mg/l	64	41	36	0.1	0.05	0.97	47	22	53	0.13	0.11	0.94
Nitrate	94	0.1	mg/l	64	2	97	2.9	1.8	1.27	47	0	100	4.1	2.4	1.09
Sulfate	94	0.1	mg/l	64	0	100	9.5	6.4	1.07	47	0	100	12.6	9.2	1.02
Alkalinity	94	4	mg/l	63	0	100	20	16	0.55	47	0	100	25	19	0.94
Hardness	96	2	mg/l	61	0	100	27	24	0.46	40	0	100	39	30	1.02
COD	97	5	mg/l	52	7	87	50	33	0.99	36	4	89	80	51	0.92
pH	94	0-14		63	0	100	6.7	6.6	0.05	47	0	100	6.8	6.8	0.06
Specific Conductance	94	1	umhos/cm	63	0	100	99	84	0.66	43	0	100	147	119	0.77
Total Dissolved Solids	96	2	mg/l	61	0	100	62	54	0.69	40	0	100	95	77	0.8
Turbidity	94	0.1	NTU	64	0	100	31	22	1.25	47	0	100	76	55	1.59
Total Suspended Solids	96	2	mg/l	61	0	100	78	50	1.3	41	0	100	240	129	1.36
Volatile Suspended Solids	94	1	mg/l/hr	63	1	98	31	20	1.22	43	0	100	57	46	0.79
MBAS	97	0.05	mg/l	51	30	41	2.6	0.025	6.95	32	10	69	0.13	0.11	0.9
Total Organic Carbon	94	1	mg/l	63	0	100	8.7	6.8	0.71	47	0	100	11.9	9.8	0.77
BOD	94	2	mg/l	54	0	100	21	19	0.8	37	0	100	20	17	0.67
Dissolved Phosphorus	94	0.05	mg/l	59	3	95	0.34	0.28	0.79	46	4	91	0.27	0.2	1.01
Total Phosphorus	94	0.05	mg/l	59	1	98	0.44	0.32	0.84	45	2	96	0.41	0.3	0.92
NH3-N	94	0.1	mg/l	62	19	69	0.24	0.14	1.51	48	9	81	0.48	0.26	1.36
Nitrate-N	96	0.1	mg/l	61	15	75	0.7	0.4	1.68	43	2	95	0.87	0.52	1.32
Nitrite-N	94	0.1	mg/l	64	10	84	0.09	0.06	0.72	47	9	81	0.09	0.06	0.73
TKN	96	0.1	mg/l	61	0	100	1.9	1.3	0.93	45	0	100	3	2.3	0.72
Dissolved Aluminum	96	100	ug/L	62	29	53	159	107	1.18	47	23	51	460	117	1.96
Total Aluminum	96	100	ug/L	63	10	84	672	354	1.65	47	7	85	1824	470	2.37
Dissolved Antimony	97	5	ug/L	54	53	2	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Total Antimony	97	5	ug/L	54	53	2	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Arsenic	97	5	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Total Arsenic	97	5	ug/L	54	52	4	S.I.D.	S.I.D.	S.I.D.	37	34	8	S.I.D.	S.I.D.	S.I.D.
Dissolved Barium	97	10	ug/L	54	15	72	19	17	0.75	37	6	84	34	26	0.81
Total Barium	97	10	ug/L	54	9	83	34	27	0.88	37	4	89	68	36	1.38
Dissolved Beryllium	97	1	ug/L	40	40	0	S.I.D.	S.I.D.	S.I.D.	34	34	0	S.I.D.	S.I.D.	S.I.D.
Total Beryllium	97	1	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Boron	97	100	ug/L	54	16	70	146	132	0.55	37	18	51	122	102	0.71
Total Boron	97	100	ug/L	54	5	91	219	214	0.5	36	10	72	187	181	0.63
Dissolved Cadmium	97	1	ug/L	54	50	7	S.I.D.	S.I.D.	S.I.D.	37	34	8	S.I.D.	S.I.D.	S.I.D.
Total Cadmium	97	1	ug/L	54	32	41	1.1	0.5	1.04	37	30	19	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Transportation						Light Industrial					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Dissolved Chromium	97	5	ug/L	54	51	6	S.I.D.	S.I.D.	S.I.D.	37	33	11	S.I.D.	S.I.D.	S.I.D.
Total Chromium	97	5	ug/L	54	40	26	4.8	2.5	1.15	37	25	32	6.8	2.5	1.6
Dissolved Chromium +6	94	10	ug/L	63	63	0	S.I.D.	S.I.D.	S.I.D.	47	47	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium +6	94	10	ug/L	63	63	0	S.I.D.	S.I.D.	S.I.D.	47	47	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Copper	97	5	ug/L	54	0	100	33	27	0.63	37	5	86	20	14	1.07
Total Copper	97	5	ug/L	54	0	100	56	39	1.15	37	0	100	32	21	1.03
Dissolved Iron	94	100	ug/L	65	34	48	200	50	1.9	51	25	51	698	104	2.99
Total Iron	94	100	ug/L	65	2	97	1188	512	1.74	51	5	90	6504	600	4.26
Dissolved Lead	97	5	ug/L	54	48	11	S.I.D.	S.I.D.	S.I.D.	37	32	14	S.I.D.	S.I.D.	S.I.D.
Total Lead	97	5	ug/L	54	29	46	10	2.5	1.57	37	18	51	17	5.1	1.88
Dissolved Manganese	98	100	ug/L	27	25	7	S.I.D.	S.I.D.	S.I.D.	26	23	12	S.I.D.	S.I.D.	S.I.D.
Total Manganese	98	100	ug/L	27	25	7	S.I.D.	S.I.D.	S.I.D.	26	23	12	S.I.D.	S.I.D.	S.I.D.
Dissolved Mercury	94	1	ug/L	63	63	0	S.I.D.	S.I.D.	S.I.D.	48	48	0	S.I.D.	S.I.D.	S.I.D.
Total Mercury	94	1	ug/L	63	62	2	S.I.D.	S.I.D.	S.I.D.	48	45	6	S.I.D.	S.I.D.	S.I.D.
Dissolved Nickel	97	5	ug/L	54	41	24	3.9	2.5	0.93	37	23	38	5	2.5	0.9
Total Nickel	97	5	ug/L	54	29	46	6	2.5	1.07	37	15	59	9.8	6	1.47
Dissolved Selenium	94	5	ug/L	65	65	0	S.I.D.	S.I.D.	S.I.D.	51	51	0	S.I.D.	S.I.D.	S.I.D.
Total Selenium	94	5	ug/L	65	61	6	S.I.D.	S.I.D.	S.I.D.	51	48	6	S.I.D.	S.I.D.	S.I.D.
Dissolved Silver	97	1	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Total Silver	97	1	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Thallium	97	5	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Total Thallium	97	5	ug/L	54	54	0	S.I.D.	S.I.D.	S.I.D.	37	37	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Zinc	94	50	ug/L	65	5	92	192	152	0.74	51	3	94	407	303	1.18
Total Zinc	94	50	ug/L	65	0	100	291	218	0.99	51	0	100	639	366	1.53
Bis(2-ethylhexyl)phthalate	99	1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Acenaphthene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Acenaphthylene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Antracene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)anthracene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)pyrene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Benzo(b)fluoranthene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Benzo(k)fluoranthene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Chrysene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Dibenz(a,h)anthracene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Fluoranthene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Fluorene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Indeno (1,2,3-cd)pyrene	99	0.1	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Naphthalene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Phenanthrene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Pyrene	99	0.05	ug/L	1	1	0	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Transportation						Light Industrial					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
All other SVOCs	94	0.05-5.0	ug/L	40	40	0	S.I.D.	S.I.D.	S.I.D.	24	24	0	S.I.D.	S.I.D.	S.I.D.
Organochlorine Pesticides & PCBs	94	0.05-1.0	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	20	20	0	S.I.D.	S.I.D.	S.I.D.
Carbofuran	96	5	ug/L	60	60	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Glyphosate	98	25	ug/L	27	25	7	S.I.D.	S.I.D.	S.I.D.	26	26	0	S.I.D.	S.I.D.	S.I.D.
Diazinon	96	0.01	ug/L	57	56	2	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Chlorpyrifos	96	0.05	ug/L	57	57	0	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Thiobencarb	96	1	ug/L	57	57	0	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
All other N- and P- Pesticides	94	1.0-2.0	ug/L	58	58	0	S.I.D.	S.I.D.	S.I.D.	43	43	0	S.I.D.	S.I.D.	S.I.D.
2,4-D	96	10	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	22	22	0	S.I.D.	S.I.D.	S.I.D.
2,4,5-TP	96	1	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	22	22	0	S.I.D.	S.I.D.	S.I.D.
Bentazon	96	2	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	22	22	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Multifamily Residential						Mixed Residential					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Cyanide	96	0.01	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	0	100	S.I.D.	S.I.D.	S.I.D.
TPH	94	1	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	0	100	S.I.D.	S.I.D.	S.I.D.
Oil and Grease	94	1	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Total Phenols	94	0.1	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	1	0	S.I.D.	S.I.D.	S.I.D.
Total Coliform	94	20	MPN/100ml	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	0	100	S.I.D.	S.I.D.	S.I.D.
Fecal Coliform	94	20	MPN/100ml	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	0	100	S.I.D.	S.I.D.	S.I.D.
Ratio Fecal Coliform/Total Coliform	94			0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fecal Streptococcus	94	20	MPN/100ml	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	1	0	100	S.I.D.	S.I.D.	S.I.D.
Fecal Enterococcus	94	20	MPN/100ml	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Ammonia	94	0.1	mg/l	38	9	76	0.47	0.29	1.44	42	4	90	0.67	0.39	1.13
Calcium	96	1	mg/l	35	0	100	19.3	8	1.2	39	1	97	7.5	6.4	0.7
Magnesium	96	1	mg/l	35	9	74	3.3	1.9	1.24	39	7	82	1.7	1.5	0.82
Potassium	94	1	mg/l	44	4	91	2.3	2.1	0.65	45	6	87	2.2	2.1	0.89
Sodium	96	1	mg/l	44	1	98	10	5.4	1.2	45	2	96	6.5	4.8	1.31
Bicarbonate	94	2	mg/l	39	0	100	39	17	1.19	40	0	100	17	14	0.82
Carbonate	94	2	mg/l	39	39	0	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Chloride	94	2	mg/l	37	8	78	13	3	1.49	38	10	74	3.5	2.7	0.93
Fluoride	94	0.1	mg/l	37	20	46	0.16	0.05	1.07	38	25	34	0.11	0.05	0.98
Nitrate	94	0.1	mg/l	37	1	97	5.3	3.6	0.87	38	3	92	6.8	2.3	3.74
Sulfate	94	0.1	mg/l	37	0	100	15	4.1	1.52	38	0	100	7.4	5	0.94
Alkalinity	94	4	mg/l	39	0	100	37	17	1.18	40	0	100	16	14	0.73
Hardness	96	2	mg/l	35	0	100	55	26	1.11	39	1	97	25	20	0.75
COD	97	5	mg/l	43	6	86	60	26	2.02	45	8	82	64	34	1.27
pH	94	0-14		39	0	100	6.9	6.6	0.1	40	0	100	6.5	6.4	0.05
Specific Conductance	94	1	umhos/cm	33	0	100	169	61	1.18	40	1	98	85	58	0.85
Total Dissolved Solids	96	2	mg/l	33	0	100	105	42	1.19	40	1	98	53	37	0.88

Constituents	Data Included Since ^a	DL	Units	Multifamily Residential						Mixed Residential					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Turbidity	94	0.1	NTU	39	0	100	23	10	1.55	40	0	100	21	15	1.06
Total Suspended Solids	96	2	mg/l	36	1	97	46	24	1.41	38	0	100	63	40	1.19
Volatile Suspended Solids	94	1	mg/l/hr	36	2	94	19	13	1.01	37	2	95	35	25	1.33
MBAS	97	0.05	mg/l	36	26	28	0.049	0.025	1.13	39	25	36	0.068	0.025	1.86
Total Organic Carbon	94	1	mg/l	37	0	100	6.9	6	0.85	43	0	100	8.8	6.8	0.74
BOD	94	2	mg/l	31	2	94	11	9	0.91	34	0	100	18	14	0.9
Dissolved Phosphorus	94	0.05	mg/l	30	1	97	0.16	0.1	1.04	39	2	95	0.2	0.14	0.87
Total Phosphorus	94	0.05	mg/l	30	1	97	0.19	0.14	1	39	1	97	0.26	0.18	0.99
NH3-N	94	0.1	mg/l	38	9	76	0.39	0.24	1.43	42	5	88	0.56	0.33	1.13
Nitrate-N	96	0.1	mg/l	37	12	68	1.1	0.8	1.01	38	13	66	0.55	0.44	0.91
Nitrite-N	94	0.1	mg/l	37	10	73	0.1	0.05	1.65	38	7	82	0.12	0.06	1.47
TKN	96	0.1	mg/l	41	0	100	2	1.5	1.11	43	1	98	2.5	1.7	0.95
Dissolved Aluminum	96	100	ug/L	45	33	27	115	50	1.58	44	33	25	182	50	2.72
Total Aluminum	96	100	ug/L	45	5	89	387	300	0.91	45	6	87	513	271	1.89
Dissolved Antimony	97	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Antimony	97	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	44	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Arsenic	97	5	ug/L	45	44	2	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Arsenic	97	5	ug/L	45	44	2	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Barium	97	10	ug/L	45	18	60	20	14	0.92	45	19	58	18	14	1.11
Total Barium	97	10	ug/L	45	13	71	25	20	0.81	45	12	73	29	22	1.45
Dissolved Beryllium	97	1	ug/L	31	31	0	S.I.D.	S.I.D.	S.I.D.	31	31	0	S.I.D.	S.I.D.	S.I.D.
Total Beryllium	97	1	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Boron	97	100	ug/L	42	12	71	148	128	0.65	44	21	52	114	111	0.66
Total Boron	97	100	ug/L	43	7	84	202	168	0.58	44	11	75	164	161	0.58
Dissolved Cadmium	97	1	ug/L	45	44	2	S.I.D.	S.I.D.	S.I.D.	45	43	4	S.I.D.	S.I.D.	S.I.D.
Total Cadmium	97	1	ug/L	45	44	2	S.I.D.	S.I.D.	S.I.D.	45	43	4	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium	97	5	ug/L	45	43	4	S.I.D.	S.I.D.	S.I.D.	45	44	2	S.I.D.	S.I.D.	S.I.D.
Total Chromium	97	5	ug/L	45	39	13	S.I.D.	S.I.D.	S.I.D.	45	42	7	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium +6	94	10	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium +6	94	10	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Copper	97	5	ug/L	45	20	56	6.9	5	0.91	45	17	62	12	8	1.42
Total Copper	97	5	ug/L	45	4	91	12	12	0.54	45	1	98	19	13	1.29
Dissolved Iron	94	100	ug/L	45	33	27	194	50	2.4	45	33	27	353	50	3.45
Total Iron	94	100	ug/L	45	9	80	791	350	2.14	45	10	78	1475	400	2.67
Dissolved Lead	97	5	ug/L	45	41	9	S.I.D.	S.I.D.	S.I.D.	45	40	11	S.I.D.	S.I.D.	S.I.D.
Total Lead	97	5	ug/L	45	31	31	5.8	2.5	1.48	45	23	49	11	2.5	2.6
Dissolved Manganese	98	100	ug/L	21	21	0	S.I.D.	S.I.D.	S.I.D.	20	18	10	S.I.D.	S.I.D.	S.I.D.
Total Manganese	98	100	ug/L	21	20	5	S.I.D.	S.I.D.	S.I.D.	20	18	10	S.I.D.	S.I.D.	S.I.D.
Dissolved Mercury	94	1	ug/L	40	40	0	S.I.D.	S.I.D.	S.I.D.	44	44	0	S.I.D.	S.I.D.	S.I.D.
Total Mercury	94	1	ug/L	40	40	0	S.I.D.	S.I.D.	S.I.D.	44	44	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Since ^a	DL	Units	Multifamily Residential						Mixed Residential					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Dissolved Nickel	97	5	ug/L	45	44	2	S.I.D.	S.I.D.	S.I.D.	45	42	7	S.I.D.	S.I.D.	S.I.D.
Total Nickel	97	5	ug/L	45	39	13	S.I.D.	S.I.D.	S.I.D.	45	42	7	S.I.D.	S.I.D.	S.I.D.
Dissolved Selenium	94	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Selenium	94	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	44	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Silver	97	1	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Silver	97	1	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Thallium	97	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Total Thallium	97	5	ug/L	45	45	0	S.I.D.	S.I.D.	S.I.D.	45	45	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Zinc	94	50	ug/L	45	21	53	83	53	1.53	45	9	80	133	89	1.33
Total Zinc	94	50	ug/L	45	5	89	146	89	1.37	45	1	98	203	125	1.35
Bis(2-ethylhexyl)phthalate	99	1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Acenaphthene	99	0.05	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Acenaphthylene	99	0.05	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Antracene	99	0.05	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)anthracene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	4	43	0.38	0.05	1.7
Benzo(a)pyrene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Benzo(b)fluoranthene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Benzo(k)fluoranthene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	6	14	S.I.D.	S.I.D.	S.I.D.
Chrysene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	2	71	0.62	0.3	1.32
Dibenz(a,h)anthracene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Fluoranthene	99	0.1	ug/L	6	4	33	0.17	0.05	1.54	7	2	71	0.29	0.27	1
Fluorene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Indeno (1,2,3-cd)pyrene	99	0.1	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Naphthalene	99	0.05	ug/L	6	6	0	S.I.D.	S.I.D.	S.I.D.	7	7	0	S.I.D.	S.I.D.	S.I.D.
Phenanthrene	99	0.05	ug/L	6	4	33	0.21	0.025	2.08	7	2	71	0.5	0.24	1.43
Pyrene	99	0.05	ug/L	6	4	33	0.2	0.025	1.95	7	2	71	0.35	0.3	1.03
All other SVOCs	94	0.05-5.0	ug/L	30	30	0	S.I.D.	S.I.D.	S.I.D.	33	33	0	S.I.D.	S.I.D.	S.I.D.
Organochlorine Pesticides & PCBs	94	0.05-1.0	ug/L	36	36	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
Carbofuran	96	5	ug/L	43	43	0	S.I.D.	S.I.D.	S.I.D.	44	44	0	S.I.D.	S.I.D.	S.I.D.
Glyphosate	98	25	ug/L	21	20	5	S.I.D.	S.I.D.	S.I.D.	20	20	0	S.I.D.	S.I.D.	S.I.D.
Diazinon	96	0.01	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	39	33	15	S.I.D.	S.I.D.	S.I.D.
Chlorpyrifos	96	0.05	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
Thiobencarb	96	1	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
All other N- and P- Pesticides	94	1.0-2.0	ug/L	37	37	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
2,4-D	96	10	ug/L	33	33	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
2,4,5-TP	96	1	ug/L	33	33	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
Bentazon	96	2	ug/L	33	33	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Sincea	DL	Units	High Density Single Family Residential						Educational					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Cyanide	96	0.01	mg/l	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
TPH	94	1	mg/l	3	0	100	1.3	1.2	0.23	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Oil and Grease	94	1	mg/l	3	0	100	1.3	1.2	0.23	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Total Phenols	94	0.1	mg/l	3	3	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Total Coliform	94	20	MPN/100ml	3	0	100	1,366,667	1,600,000	0.3	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fecal Coliform	94	20	MPN/100ml	3	0	100	933,333	900,000	0.7	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Ratio Fecal Coliform/Total Coliform	94			0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fecal Streptococcus	94	20	MPN/100ml	3	0	100	1,233,333	1,600,000	0.51	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fecal Enterococcus	94	20	MPN/100ml	3	0	100	610,000	140,000	1.41	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Ammonia	94	0.1	mg/l	34	6	82	0.41	0.3	1.05	40	12	70	0.33	0.18	1.62
Calcium	96	1	mg/l	32	1	97	6.7	5.8	0.55	39	0	100	16	10	0.71
Magnesium	96	1	mg/l	32	8	75	1.5	1.2	0.66	39	8	79	3.2	2.4	0.96
Potassium	94	1	mg/l	38	0	100	3.6	2.9	0.66	41	0	100	3.4	2.7	0.49
Sodium	96	1	mg/l	36	0	100	6.2	5	0.81	41	0	100	26	8	2.21
Bicarbonate	94	2	mg/l	35	0	100	21	13	1.04	40	0	100	39	28	0.76
Carbonate	94	2	mg/l	35	35	0	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Chloride	94	2	mg/l	33	2	94	5	4.2	0.69	40	4	90	34	4.6	2.89
Fluoride	94	0.1	mg/l	33	27	18	S.I.D.	S.I.D.	S.I.D.	40	24	40	0.14	0.05	1.21
Nitrate	94	0.1	mg/l	33	1	97	3.9	2.1	1.38	40	2	95	2.6	2.2	0.73
Sulfate	94	0.1	mg/l	33	0	100	6.9	3.8	1.05	40	0	100	17.3	9.3	1.23
Alkalinity	94	4	mg/l	35	0	100	20	13	0.91	40	0	100	36	26	0.72
Hardness	96	2	mg/l	31	0	100	23	20	0.53	39	0	100	52	40	0.79
COD	97	5	mg/l	32	5	84	89	39	1.87	40	10	75	37	34	0.85
pH	94	0-14		35	0	100	6.5	6.5	0.06	40	0	100	7	6.9	0.07
Specific Conductance	94	1	umhos/cm	33	0	100	90	61	0.77	39	0	100	243	111	1.41
Total Dissolved Solids	96	2	mg/l	32	0	100	58	38	0.8	39	0	100	147	68	1.35
Turbidity	94	0.1	NTU	34	0	100	34	19	1.17	41	0	100	64	36	1.14
Total Suspended Solids	96	2	mg/l	30	0	100	95	61	1.16	39	0	100	95	61	1.05
Volatile Suspended Solids	94	1	mg/l/hr	31	0	100	48	31	0.91	39	0	100	23	21	0.69
MBAS	97	0.05	mg/l	29	26	10	S.I.D.	S.I.D.	S.I.D.	38	33	13	S.I.D.	S.I.D.	S.I.D.
Total Organic Carbon	94	1	mg/l	38	0	100	9.8	7.1	0.76	42	0	100	7.5	6.5	0.5
BOD	94	2	mg/l	27	0	100	16	15	0.68	34	0	100	13	12	0.68
Dissolved Phosphorus	94	0.05	mg/l	32	0	100	0.29	0.25	0.57	37	1	97	0.27	0.2	0.86
Total Phosphorus	94	0.05	mg/l	32	0	100	0.39	0.32	0.77	37	0	100	0.31	0.23	0.65
NH3-N	94	0.1	mg/l	34	7	79	0.34	0.25	1.04	40	12	70	0.28	0.15	1.58
Nitrate-N	96	0.1	mg/l	32	11	66	0.86	0.46	1.51	39	12	69	0.51	0.48	0.86
Nitrite-N	94	0.1	mg/l	33	12	64	0.1	0.05	1.01	39	13	67	0.09	0.05	1.41
TKN	96	0.1	mg/l	35	0	100	2.9	2	1.04	39	0	100	1.6	1.3	0.73
Dissolved Aluminum	96	100	mg/l	36	26	28	105	50	1.03	42	11	74	397	248	1.21
Total Aluminum	96	100	mg/l	36	6	83	599	287	1.08	42	2	95	881	720	0.83

Constituents	Data Included Sincea	DL	Units	High Density Single Family Residential						Educational					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Dissolved Antimony	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Total Antimony	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Arsenic	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	39	7	S.I.D.	S.I.D.	S.I.D.
Total Arsenic	97	5	mg/l	32	29	9	S.I.D.	S.I.D.	S.I.D.	42	39	7	S.I.D.	S.I.D.	S.I.D.
Dissolved Barium	97	10	mg/l	32	17	47	14	5	0.92	42	6	86	28	26	0.72
Total Barium	97	10	mg/l	32	11	66	21	21	0.72	42	6	86	37	33	0.74
Dissolved Beryllium	97	1	mg/l	19	19	0	S.I.D.	S.I.D.	S.I.D.	29	29	0	S.I.D.	S.I.D.	S.I.D.
Total Beryllium	97	1	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Boron	97	100	mg/l	32	12	63	126	125	0.58	42	5	88	189	153	0.65
Total Boron	97	100	mg/l	32	5	84	181	171	0.52	42	4	90	254	227	0.58
Dissolved Cadmium	97	1	mg/l	32	31	3	S.I.D.	S.I.D.	S.I.D.	42	40	5	S.I.D.	S.I.D.	S.I.D.
Total Cadmium	97	1	mg/l	32	30	6	S.I.D.	S.I.D.	S.I.D.	42	34	19	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	41	2	S.I.D.	S.I.D.	S.I.D.
Total Chromium	97	5	mg/l	32	29	9	S.I.D.	S.I.D.	S.I.D.	42	33	21	3.6	2.5	0.74
Dissolved Chromium +6	94	10	mg/l	36	36	0	S.I.D.	S.I.D.	S.I.D.	43	43	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium +6	94	10	mg/l	36	36	0	S.I.D.	S.I.D.	S.I.D.	43	43	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Copper	97	5	mg/l	32	15	53	8.5	6.7	0.95	42	8	81	13	9.9	0.94
Total Copper	97	5	mg/l	32	2	94	15	11	0.57	42	0	100	24	15	1.49
Dissolved Iron	94	100	mg/l	38	27	29	123	50	1.2	42	15	64	454	190	2.3
Total Iron	94	100	mg/l	38	7	82	1117	546	1.36	42	4	90	2705	625	3.32
Dissolved Lead	97	5	mg/l	32	28	13	S.I.D.	S.I.D.	S.I.D.	42	40	5	S.I.D.	S.I.D.	S.I.D.
Total Lead	97	5	mg/l	32	14	56	10	5.4	1.03	42	30	29	4.9	2.5	1.09
Dissolved Manganese	98	100	mg/l	11	10	9	S.I.D.	S.I.D.	S.I.D.	17	17	0	S.I.D.	S.I.D.	S.I.D.
Total Manganese	98	100	mg/l	11	10	9	S.I.D.	S.I.D.	S.I.D.	17	17	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Mercury	94	1	mg/l	35	35	0	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Total Mercury	94	1	mg/l	35	34	3	S.I.D.	S.I.D.	S.I.D.	40	40	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Nickel	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	38	10	S.I.D.	S.I.D.	S.I.D.
Total Nickel	97	5	mg/l	32	27	16	S.I.D.	S.I.D.	S.I.D.	42	26	38	4.7	2.5	0.69
Dissolved Selenium	94	5	mg/l	38	38	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Total Selenium	94	5	mg/l	38	38	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Silver	97	1	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Total Silver	97	1	mg/l	32	31	3	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Thallium	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Total Thallium	97	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	42	42	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Zinc	94	50	mg/l	38	30	21	44	25	1.42	42	19	55	66	56	0.83
Total Zinc	94	50	mg/l	38	13	66	79	66	0.75	42	5	88	138	98	1.73
Bis(2-ethylhexyl)phthalate	99	1	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Acenaphthene	99	0.05	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Acenaphthylene	99	0.05	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Anthracene	99	0.05	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.

Constituents	Data Included Sincea	DL	Units	High Density Single Family Residential						Educational					
				No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Benzo(a)anthracene	99	0.1	mg/l	5	4	20	S.I.D.	S.I.D.	1.24	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Benzo(a)pyrene	99	0.1	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Benzo(b)fluoranthene	99	0.1	mg/l	5	4	20	S.I.D.	S.I.D.	1.29	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Benzo(k)fluoranthene	99	0.1	mg/l	5	4	20	S.I.D.	S.I.D.	1.18	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Chrysene	99	0.1	mg/l	5	4	20	S.I.D.	S.I.D.	1.18	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Dibenz(a,h)anthracene	99	0.1	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fluoranthene	99	0.1	mg/l	5	3	40	0.53	0.05	1.67	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Fluorene	99	0.1	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Indeno (1,2,3-cd)pyrene	99	0.1	mg/l	5	5	0	S.I.D.	S.I.D.	S.I.D.	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Naphthalene	99	0.05	mg/l	5	3	40	0.04	0.025	0.59	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Phenanthrene	99	0.05	mg/l	5	3	40	0.13	0.025	1.66	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
Pyrene	99	0.05	mg/l	5	1	80	0.83	0.37	1.44	0	0	S.I.D.	S.I.D.	S.I.D.	S.I.D.
All other SVOCs	94	0.05-5.0	mg/l	26	26	0	S.I.D.	S.I.D.	S.I.D.	23	23	0	S.I.D.	S.I.D.	S.I.D.
Organochlorine Pesticides & PCBs	94	0.05-1.0	mg/l	31	31	0	S.I.D.	S.I.D.	S.I.D.	22	22	0	S.I.D.	S.I.D.	S.I.D.
Carbofuran	96	5	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	43	43	0	S.I.D.	S.I.D.	S.I.D.
Glyphosate	98	25	mg/l	11	11	0	S.I.D.	S.I.D.	S.I.D.	17	15	12	S.I.D.	S.I.D.	S.I.D.
Diazinon	96	0.01	mg/l	30	28	7	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
Chlorpyrifos	96	0.05	mg/l	30	30	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
Thiobencarb	96	1	mg/l	30	30	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
All other N- and P- Pesticieds	94	1.0-2.0	mg/l	32	32	0	S.I.D.	S.I.D.	S.I.D.	39	39	0	S.I.D.	S.I.D.	S.I.D.
2,4-D	96	10	mg/l	27	27	0	S.I.D.	S.I.D.	S.I.D.	24	24	0	S.I.D.	S.I.D.	S.I.D.
2,4,5-TP	96	1	mg/l	27	27	0	S.I.D.	S.I.D.	S.I.D.	24	24	0	S.I.D.	S.I.D.	S.I.D.
Bentazon	96	2	mg/l	27	27	0	S.I.D.	S.I.D.	S.I.D.	24	24	0	S.I.D.	S.I.D.	S.I.D.

Notes
CV = Coefficient of variation
DL = Detection Limit
S.I.D. = Statistically Invalid Data, not enough data above detection limit collected
a) Detection limits have changed throughout the monitoring process. Only data matching the current detection limit is displayed in this table. The Data Included Since field indicates the first year of the storm season with the current detection limit.

Appendix 3.D

Common Sources of Key Pollutants of Concern in the Ballona Creek WMA

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Bacteria

Total Coliform, Fecal Coliform, Enterococcus spp. and Escherichia coli

Sources contributing to the bacterial indicators total coliform, fecal coliform, enterococcus and *E. coli* are discussed in the source assessment included in the Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL. Bacteria loads associated with point sources, including MS4 and Caltrans Stormwater Permits, minor and general NPDES permits (Appendix 3.A) are largely unknown due to lack of monitoring for bacteria; however the main contributor of flow and associated bacteria loading is the stormwater conveyance system. Storm drains discharging to Ballona Creek flow during wet and dry weather; in dry weather these flows and associated bacteria loading result from over-irrigation, car washing, restaurant washout and other activities. Non-point sources include inputs to Ballona Estuary from Del Rey Lagoon, which may be due wildlife (LARWQCB 2006).

Shellfish Harvesting Advisory

The Ballona Creek Estuary is listed as impaired based on an existing shellfish harvesting advisory. The latest Integrated Report from the SWRCB that provides information on the basis for 303(d) impairment listings does not address this particular impairment (SWRCB, 2010). Therefore, it is only listed as impaired because it is an advisory. Shellfish harvesting advisories are largely the effects of coliform in the watershed (LARWQCB, 2007). Higher amounts of impervious surfaces associated with urban landscapes result in increased magnitude and frequency of surface runoff during both wet and dry weather conditions. Bacterial contamination is generated throughout the watershed and then transported through the storm drain system regulated under the MS4 permit. Relatively high bacteria concentrations were observed through both Ballona Creek and the storm drains draining to the creek (SCCWRP, 2004).

Storm drain system discharges may have elevated levels of bacterial indicators from sanitary sewer leaks and spills, illicit connections of sanitary lines to the storm drain system, runoff from homeless encampments, pet waste, organic debris from vegetation, food waste, and illegal discharges from recreational vehicle holding tanks, among others. (LARWQCB, 2006). The bacteria indicators used to assess water quality are not specific to human sewage; therefore, fecal matter from animals and birds can also be a source of elevated bacteria levels, and vegetation and food waste can be a source of elevated levels of total coliform bacteria, in particular (LARWQCB, 2006).

In addition to flow from Ballona Creek, the Ballona Estuary also receives flow from the Del Rey Lagoon and Ballona Wetlands through connecting tide gates. Flows from Del Rey Lagoon are considered nonpoint sources of bacterial contamination. This waterbody may be considered for a natural source exclusion if it's contributing bacteria loads are determined to be from wildlife in the area, as opposed to anthropogenic sources. A source identification study for the lagoon will need to be conducted in order to apply the natural source exclusion (LARWQCB, 2006). Other non-point sources in Ballona Creek and Estuary include natural sources from birds, waterfowl and other wildlife. Data do not currently exist to quantify the extent of the impact of wildlife on bacteria water quality in the Estuary (LARWQCB, 2006)

Because shellfish harvesting advisory has been identified as an effect of coliform in the watershed, the same sources identified for contributing to bacterial indicator densities can also be tied to the shellfish harvesting advisory. While the basis for shellfish harvesting advisories is to protect shellfish harvesting (SHELL) beneficial use, and the bacteria TMDLs in the Ballona Creek watershed are established to protect recreational (REC) beneficial use, both impairments are tied to elevated levels of coliform.

Therefore, it can be concluded that the shellfish harvesting advisory in the Ballona Creek Estuary is likely linked to MS4 discharges.

Current and Historical Organics

Urban storm water has been recognized as a substantial source of organic pollutants such as PAHs, PCBs and organochlorine compounds (Suffet and Stenstrom, 1997). This is also reflected in routine storm water monitoring performed by LACDPW under the MS4 permit (LACDPW, 2002).

The major contributor of associated organochlorine compounds, pesticides, PCBs and PAHs loading to Ballona Creek and Estuary is believed to be wet-weather runoff discharged from the storm water conveyance system (USEPA and CA RWQCB, 2005). In the highly urbanized Ballona Creek watershed, the contribution of stormwater runoff and storm-borne sediment loads from these areas drain to the MS4 system.

The loadings of DDT, PCBs and chlordane reflect historic uses. Although the uses of these compounds are banned, these legacy pollutants continue to remain elevated in sediments. DDT and PCB loadings appear to have declined over the last 30 years (Stein et al., 2003).

Pesticides (DDT, DDE and DDD)

DDT is an organochlorine insecticide that was widely used on agricultural crops and to control disease-carrying insects. In California, DDT was used primarily for agricultural activities. The use of DDT was banned in the United States in 1972, except for public health emergencies involving insect diseases and control of body lice. Although DDT is no longer used, it persists in the environment, adhering strongly to soil particles. Total DDT consists of two isomers (p,p-DDT and o,p-DDT) and several degradation products (p,p-DDE, o,p-DDE, p,p-DDD, and o,p-DDD) (USEPA 2012b).

In the previous study by Young et al. (1973), the annual wet weather loads for DDTs from Ballona Creek were around 18 kg during 1971-1972 water year, which was a particularly wet year. In the 1987-88 period, wet weather loadings for DDT during a comparable size storm year were around 8 kg (Stein et al., 2003). There were no detectable concentrations of DDT in stormwater samples from 1994 to 2005 (LADPW, 2005). However, the detection limits for DDT used by the Los Angeles County lab are two orders of magnitude greater than the Communities of Practice (COP)'s human health objective.

More recently, Curren et al. (2011) evaluated the contribution of subwatersheds to chlorinated pesticide loading during wet weather flow. Fifteen storm drains from Ballona Creek subwatershed were sampled during three storms during the 2005 - 2006 winter rainy season. The suspended solids were analyzed for chlorinated pesticides. Curren et al. (2011) found DDT concentrations in Ballona Creek stormwater during the 2005-2006 season that ranged from non-detect to 0.4 ng/l. This indicates that DDT concentrations in stormwater may exceed the human health criteria. The total DDT loadings based on the average concentrations from these three storms sampled by Curren et al. (2011) were estimated to be 6.2 g.

PCBs

Polychlorinated biphenyls (PCBs) are mixtures of up to 209 individual chlorinated compounds (known as congeners). PCBs were used in a wide variety of applications, including dielectric fluids in transformers and capacitors, heat transfer fluids, and lubricants. In 1976, the manufacture of PCBs was prohibited because of evidence that they build up in the environment and can cause harmful health effects.

PCBs are typically associated with more urban areas. In addition, PCBs were commonly used in a number of household products (e.g., fluorescent light fixtures, paints, waxes, caulking). Although there is little information available to estimate the potential loads from rural areas, rural areas are unlikely to be a major source of PCBs (USEPA, 2012).

Potential pollutants from construction sites include sediment, which may contain historic PCBs from construction materials and the heavy equipment used on construction sites. In addition, in the highly urbanized Ballona Creek watershed re-development of former industrial sites has a higher potential to discharge sediments laden with pollutants such as PCBs. During wet weather, runoff from construction sites has the potential to contribute metals loadings to the creek (USEPA and CA RWRCB, 2005).

In the 1971-1972 water year, the annual wet weather loads for PCBs from Ballona Creek were around 15 kg (Young et al., 1973). In the 1987-88 water year, the wet weather loadings for PCBs were around 7 kg. LADPW has not indicated detectable levels of PCBs in stormwater from Ballona Creek since the mid-1990s.

However, detection levels for PCBs measured as arochlors were 65 ng/l, which are more than three orders of magnitude greater than the COP human health objective. In 1995-1996 water year, Suffet and Stenstrom (1997) measured PCB congeners and found elevated concentrations of total PCBs (calculated as the sum of the 18 congeners) ranging between 15,100 ng/l to 390,000 ng/l in stormwater runoff to Ballona Creek.

More recently, Curren et al. (2011) found concentrations of total PCBs that were much lower, ranging from 0.74 ng/l to 16.07 ng/l in the 2005-06 rainy season. These most recent values are all higher than the COP objective. The estimate of PCB loads based on the average concentrations from the three storms sampled by Curren et al. (2011) was 32.9 g. However, a disproportionate mass of PCB loading came from a site which had no obvious sources.

The continued presence of high PCBs in sediments from Ballona Creek also suggest land-based inputs to the storm drain system, although there is limited information to assess the impact of hundreds of individual industrial or construction stormwater projects (USEPA, 2012).

Atmospheric deposition may be a potential nonpoint source of PCBs. There may also be potential losses of PCBs that may occur as a result of volatilization. Sabin et al. (2011) provide limited information on net-gas exchange during dry weather from sites near Ballona Creek Estuary. Volatilization may be an important loss term process for PCBs. However, the rates of volatilization are a function of concentrations in both the air and water which can vary greatly over time and space.

PAHs

Polynuclear aromatic hydrocarbons (PAHs) are a group of over 200 different chemicals. They are found in nature in coal and crude oil and in emissions from combustion of fossil fuels, forest fires and volcanoes. Most PAHs entering the environment are formed unintentionally during burning (coal, oil, wood, gasoline, garbage, tobacco and other organic material) or in certain industrial processes. Important sources of PAHs in surface waters include deposition of airborne PAHs, municipal waste water discharge, urban storm water runoff particularly from roads, runoff from coal storage areas, effluents from wood treatment plants and other industries, oil spills, and petroleum pressing (ATSDR, 1995).

The loadings of PAHs are attributable to ongoing activities in the watershed. Atmospheric deposition may be a potential nonpoint source of metals and PAHs to the watershed, through either direct or indirect deposition. PAHs are released to the atmosphere through natural and synthetic sources of emissions. The largest sources of PAHs to the atmosphere are from synthetic sources, including wood burning in homes; automobile and truck emissions; and hazardous waste sites and former manufactured-gas sites (USEPA and CA RWRCB, 2005).

It is believed that the primary source of PAHs to Ballona Creek and Estuary is urban storm water runoff. Indirect atmospheric deposition reflects the process by which metals and PAHs deposited on the land surface may be washed off during storm events and delivered through storm water runoff to Ballona Creek. Most airborne PAHs are deposited on the land (e.g., through precipitation or indirect atmospheric deposition) and are transported to Ballona Creek through storm water runoff (USEPA and CA RWQCB, 2005).

Chlordane

Chlordane was used as a pesticide to control insects on agricultural crops, residential lawns and gardens, and in buildings, particularly for termite control. In 1988, all chlordane uses, except for fire ant control, were voluntarily cancelled in the US. So the majority of environmental loadings of chlordane were required to cease as of 1988 with the end of authorized commercial use. However, stocks held by homeowners could be a continuing source, as would be the erosion and transport of existing soils previously contaminated by chlordane and related compounds (MDE, 1999).

Chlordane is not an expected substance in point source discharges. If it were to occur in municipal discharges, it would be through intermittent, illicit, and generally untraceable sources (MDE, 1999).

Although it is no longer used in the US, chlordane persists in the environment, adhering strongly to soil particles. It is assumed that the only source of chlordane in the watershed is storm water runoff carrying historically deposited chlordane most likely attached to eroded sediment particles (USEPA and CA RWQCB, 2005).

Bis(2-ethylhexyl)Phthalate

Bis-2-ethylhexylphthalate is a plasticizer used in the manufacture of polyvinyl chloride (PVC). It is also a common contaminant of sample containers, sampling apparatus, and analytical equipment. A Category 3 contaminant, its incidence of exceedance is low (one in 19 samples during the past 5 years during wet weather and none of the 14 samples in the past 5 years during dry weather). Its attribution to MS4 discharges is not highly supported by these results and earlier detections can possibly be attributable to lab contamination. It is known to be a common contaminant of sample containers, sampling apparatus, and analytical equipment. For example, it has been identified as a common laboratory contaminant during groundwater monitoring data analysis (WI DNR, 2002).

Metals

There are wet and dry weather numeric targets for copper, lead, selenium, and zinc in the Ballona Creek watershed. Under the 2008 Metals TMDL, copper, lead, selenium, and zinc have separate dry weather and wet weather targets and allocations. Flow in Ballona Creek was used in the TMDL to determine when wet weather or dry weather targets and allocations applied. The Ballona Creek Toxics and Metals TMDLs were amended on December 5, 2013, with the recommendation that selenium be removed from the TMDL, and numeric targets adjusted for copper, lead, and zinc. The amendment also set sediment

targets for cadmium, copper, lead, silver, and zinc in the Ballona Creek Estuary and WLAs for those constituents in the Ballona Creek watershed (LARWQCB, 2010b).

The sources and delivery of metals can vary depending on weather and flow conditions. Wet weather metal loads are typically greater than dry weather loads, with wet weather stormwater runoff shown to be the dominant source of annual metals loading (LACDPW, 2012a). Numerous researchers have documented that the most prevalent metals in urban storm water (i.e., copper, lead, zinc, and to a lesser degree cadmium) are consistently associated with suspended solids. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in estuarine sediments where they may pose a risk of toxicity. On an annual basis, stormwater contributes about 91 percent of the copper loading and 92 percent of the lead loading to Ballona Creek, the majority of which is permitted through the Los Angeles County MS4 (in addition to the Caltrans stormwater permit, general construction stormwater permit, and general industrial stormwater permit) (LARWQCB, 2013b).

During dry weather, most of the metals loadings are in the dissolved form. Storm drains convey a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. (LARWQCB, 2013b). While flows during dry weather are highly variable in both time and space, storm drain metals concentrations were generally higher than those observed in Ballona Creek itself, and peak concentrations were typically an order of magnitude greater in the storm drain than in the creek (SCCWRP, 2004). SCCWRP (2004) found that high concentrations of metals in the creek correspond to locations of storm drains associated with high concentrations.

Toxic Organic Chemicals

The fertilizers used for land and landscape maintenance of municipal areas are also a source of metals. Fertilizers, herbicides, and pesticides contain metals such as cadmium, copper, lead, and zinc. Heavy metals in municipal stormwater can also come from car debris, roof shingles, building materials, and plastics (LACDPW, 2012a).

Road Infrastructure

The “The use and wear of cars is the most prevalent source of roadway pollutants. A California study found that cars are the leading source of metal loads in stormwater, producing over 50 percent of the copper, cadmium, and zinc loads. Wear from brake pads, tires, and engine parts is a significant source of metal pollutants. For example, almost 50 percent of the copper loads in roadway stormwater originates from brake pads, and tire wear accounts for over 50 percent of the total cadmium and zinc loads delivered to the San Francisco Bay each year. Such conditions are expected to be similar for the Los Angeles region. Leaking oil, grease, and coolant also contribute metals and PAHs to the roadway loads.” (LACDPW, 2012a). Table 1 shows common sources of contaminants in runoff from roads and highways.

Silver

According to the TMDL development for the Lower St. Johns River in Florida, silver compounds in soil are released into the environment by rain and may be carried long distances in air and water. Silver is stable and remains in the environment in one form or another until it is taken out again by people. Because silver is an element, it does not break down, but it can change its form by combining with other substances (USEPA, 2004). Silver has also been identified as a component in vehicle fuels (Lee, 1993).

There are limited studies and literature on the sources of silver in the watershed, but MS4 discharges cannot be eliminated as possible sources of silver. However, it should be noted that over the past five years, there have only been two exceedances of total silver in the watershed out of 70 samples (at Centinela Creek), and no exceedances for dissolved silver. Over the past ten years, there have been seven exceedances of total silver in the watershed out of 168 samples (4 percent), and four exceedances of dissolved silver out of 128 samples (3 percent). This low number of exceedances may indicate that silver is not a significant constituent of concern in the watershed.

Table 1. Common Sources of Roadway Pollutants

Source	Cadmium	Copper	Nickel	Lead	Zinc	PAHs	Nutrients	Synthetic Organic Chemicals
Gasoline	•	•		•	•			
Exhaust			•	•		•		•
Motor oil and grease			•	•	•	•		
Antifreeze	•	•		•	•	•		
Undercoating				•	•			
Brake linings		•	•	•	•			
Tires	•	•		•	•	•		
Asphalt	•	•	•		•	•		
Concrete		•	•		•			
Diesel Oil	•			•	•			•
Engine wear			•	•	•			
Fertilizers, pesticides, and herbicides	•	•	•		•		•	•

Adapted from LACDPW (2012a)

Mercury

The adopted San Francisco Bay Basin Plan amendment identified sources of mercury in San Francisco Bay to include bed erosion (about 38 percent), the Central Valley watershed (about 36 percent), urban stormwater runoff (about 13 percent), the Guadalupe River watershed (about 8 percent), direct atmospheric deposition (about 2 percent), non-urban stormwater runoff (about 2 percent), and wastewater discharges (about 1.5 percent). There was also a potential that mercury may enter the Bay from Bay margin contaminated sites and abandoned mercury mines outside the Guadalupe watershed (SFBRWQCB, 2006).

The organic form of mercury (methylmercury) is toxic and bioavailable. Sources of methylmercury in Delta waters include tributary inputs from upstream watersheds and within-Delta sources such as methylmercury flux from wetland and in-channel sediments, municipal and industrial wastewater, agricultural drainage, and urban runoff (CVRWQCB, 2010). Various sources of mercury have been identified, including urban stormwater runoff, correlating to a linkage to MS4 discharges.

Mercury is also recognized to be a potential laboratory contaminant. Mercury is found in thermometers, manometers, vacuum pumps, switches, discharge tubes, dental amalgams, and as a component in chemical reactions. Because of its frequent use, it is not unusual for mercury to be spilled, or otherwise contaminate laboratory, storage, or office areas. Contamination of laboratory spaces from historic mercury spills is also common (University of Florida, 2012).

Nutrients

Ammonia

Within the adjacent Los Angeles River watershed, the TMDL for Nitrogen Compounds Source Assessment found that although POTWs are the largest source of nutrients (note Ballona Creek Watershed does not have any POTW discharges), the urban and residential stormwater runoff collected and discharged from MS4s presents loadings of nutrients that is considerable and represents a linkage to MS4 (LARWQCB 2003). The nutrient loading for stormwater runoff from the land uses draining to MS4s would occur during storm events, so the dry weather exceedances for ammonia within Ballona Creek Reach 2 and Sepulveda Channel may be the result of permitted or unpermitted discharges to the MS4.

Trash

A numeric target of 0 (zero) trash in the water has been established by the Ballona Creek and Santa Monica Bay TMDLs. According to the TMDL Staff Reports, the major source of trash in Ballona Creek and Santa Monica Bay results from litter, which is intentionally or accidentally discarded in watershed drainage areas. "Transport mechanisms include: (1) storm drains: trash is deposited throughout the watershed and is carried to the various reaches of the river and its tributaries during and after significant rainstorms through storm drains, (2) wind action: trash can also blow into the waterways directly, and (3) direct disposal: direct dumping also occurs." (LARWQCB, 2004). The Santa Monica Bay TMDL also lists marine vessels and ships as an additional source. Several studies conclude that urban runoff is the dominant source of trash. Ballona Creek collects runoff from several partially urbanized canyons on the south slopes of the Santa Monica Mountains as well as from intensely urbanized areas of West Los Angeles, Culver City, Beverly Hills, Hollywood, and parts of Central Los Angeles. The correlation between trash and urban runoff through storm drains can be evidenced by the large amount of trash that accumulates at the base of storm drains (LARWQCB, 2004, LARWQCB, 2010).

Pollutant Class To Be Determined

The section includes water quality conditions that are not specific pollutants but indicate the presence of pollutants, or specific constituents where the linkage to a pollutant will be further investigated during EWMP development):

Cyanide

Cyanide was placed on the 303(d) list of impairments for Ballona Creek due to a sufficient number of exceedances of the CTR cyanide criteria for protection of aquatic life (SWRCB, 2010). The sources of cyanide are generally anthropogenic in nature, but can also include some natural non-point sources. Point sources of cyanide can include stormwater runoff from industrial facilities, e.g., metal plating and finishing operations may contain cyanide (LACDPW, 2005). In the Ballona Creek watershed, sand and gravel operations, oil and natural gas facilities, transportation, recycling and manufacturing facilities have been identified as industrial sources (LACDPW, 2006). These sources are regulated by California's statewide General Industrial Stormwater Permit or individual NPDES permits.

Non-point sources of cyanide may include pesticide use, which can be transported to storm drains during dry weather flow (e.g., over-irrigation) or wet weather flow. The largest likely source of cyanide in the watershed is air-borne deposition from motor vehicle emissions (LACDPW, 2005). The amount of cyanide that could be released to the environment from natural sources is comparatively low. Natural

sources may include incomplete combustion from forest fires, decomposition of plant material and fungi. (LACDPW, 2005).

While some potential sources of cyanide may be attributed to industrial facilities, e.g., metal plating, finishing, and manufacturing operations, the MS4 cannot be eliminated as a significant linkage for cyanide impairment as the MS4 is the conduit for cyanide that comes from some of the most significant sources. The largest likely sources of cyanide in the watershed are linked to MS4 discharges, as both airborne deposition from motor vehicle emissions and pesticide use are linked to surface runoff in the MS4 and from the MS4 to Ballona Creek. The low level of cyanide exceedances may also be attributed to laboratory contaminant issues.

Dissolved Oxygen

Low dissolved oxygen concentration results when there is insufficient aeration of oxygen into water. Slow-moving, stagnant, and pooled water has little opportunity for aeration, resulting in low concentrations of dissolved oxygen. Biologically, oxygen is also removed from the water column during respiration by plants for cell production. The chemical removal of oxygen can occur as ammonia is oxidized to nitrite, and eventually nitrate, thereby removing available oxygen from the water column. The saturation of oxygen in water is lastly a function of temperature and salinity; water with lower temperature and salinity retains more dissolved oxygen, relative to higher temperature and salinity (CCRWQCB, 2006).

A characterization study conducted in Washington found that increased stream temperatures likely heavily influence lower dissolved oxygen levels (SWDE, 2013). An indicator of low dissolved oxygen is benthic algae cover. Benthic algae is a natural plant in most stream systems and is a vital component of the stream food web. Under natural conditions, algal density is kept at levels that do not adversely affect dissolved oxygen. Factors limiting algal growth include (but not limited to): 1) nutrients, 2) light, 3) substrate, 4) flowing water, and 5) temperature. The Central Coast Regional Board staff found that benthic algae cover responds proportionally to light, and to a lesser degree, nutrient availability (CCRWQCB, 2006). The direct impact of urban storm water runoff on dissolved oxygen conditions in receiving waters is not thought to be substantial. However, the secondary impacts on the dissolved oxygen balance in receiving waters due to nutrient enrichment, eutrophication, and resulting sediment oxygen demand may be important. Therefore, there is still an indirect linkage between the MS4 and low dissolved oxygen.

It should be noted that over the past five years, there have been zero exceedances of dissolved oxygen in the watershed out of 19 samples. Over the past ten years, there have been two exceedances in 43 samples. This indicates that dissolved oxygen may not be a significant constituent of concern in the watershed.

pH

The receiving water analysis for pH identified exceedances for both the Basin Plan minimum and maximum objectives. Wet weather samples exhibited exceedances for the both minimum/maximum WQOs, while dry weather samples only exhibited exceedances for maximum WQOs. A characterization study conducted in Washington found that increased low pH is likely a result of the combination of large wet-season precipitation events, the acidity of rainfall and shallow groundwater, and the poor buffering capacity of the stream and surrounding landscape (SWDE, 2013). Most pH impacts in urban waters are caused by runoff of rainwater with low pH levels (acid precipitation). In fact, urban areas tend to have more acidic rainfall than less developed areas (USEPA, 1999).

Higher levels of pH may be caused by the respiration of aquatic plants, e.g. benthic algae. Photosynthesis is accelerated during afternoon hours when peak solar radiation is present. Photosynthesis by algae uses water column carbon dioxide. The reduced carbon dioxide has a net effect of increasing pH. Central Coast Regional Board staff concluded that benthic algae is a source of biologic removal of dissolved oxygen in lower Chorro Creek during afternoon hours, and is a factor causing impairment of low dissolved oxygen and high pH (CCRWQCB, 2006). Higher levels of pH may be attributed to the MS4 by way of nutrient enrichment, which promotes algal growth.

Sediment and Exotic Vegetation

This TMDL for Ballona Creek Wetlands addresses the sediment and exotic vegetation impairments by setting targets to restore a diverse composition of healthy wetland habitats and to eliminate the presence of exotic vegetation that overwhelms the highly sensitive native habitats. The critical stressors causing impacts to the Ballona Creek Wetlands are excessive sediment on-site that has raised the mean elevation and buried critical habitat. Excess sediment has also created conditions to support highly invasive exotic vegetation that crowd out native species. Load allocations for legacy sediment were set at zero and approximately 3.1 million cubic yards of excess sediment have been identified to be removed from the sensitive habitat to restore beneficial uses (USEPA, 2012).

The potential for sediment loading into the Wetland is associated with the flow coming down the watershed. Sediment moves from the watershed down the drainage channels or MS4 system as a result of storms, wind and land based runoff. Major storms are responsible for significant transport and deposition of sediment into Ballona Creek and Ballona Wetland (USEPA, 2012).

Watershed modifications, including urbanization, influence downstream suspended sediment concentrations. The increased urban area reduces the amount of pervious cover that is subject to erosion. The Ballona Creek Watershed is extensively developed (over 80 percent of the watershed is developed). While urbanization increases the velocity of flow, which would typically cause scouring in natural channel and increase the sediment load, Ballona Creek is largely a lined channel so the natural bottom is not present to contribute additional sediment load. Sedimentation rates to the Ballona Creek Wetland are slow due to low sediment supply from the Ballona Creek Watershed (USEPA, 2012).

The largest source of impact to sedimentation is due to historical developmental activities that have led to a legacy of excess sediment loading in the wetland areas. Hydromodifications and discharges of dredged spoils and fill have caused significant changes in the size and function of the Ballona Creek Wetlands. Perhaps the largest modifications to the physical make-up of the wetland have been the construction of the Ballona Creek Flood Control channel, conversion of saltmarsh to agricultural areas in Area B, construction of Culver Boulevard through Area B, and the deposition of dredged and fill sediment on Area A during the construction of the Marina del Rey Harbor (USEPA, 2012).

Appendix 4.A

Structural Control Measure Fact Sheets

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BMP Fact Sheets were developed for each subcategory of structural BMPs. Each BMP Fact Sheet further details BMP functions, design variations, and typical design components. A relative performance gauge is used to display the BMP performance functions for each subcategory.

BMP Fact Sheets for Regional BMPs

Regional BMPs are constructed structural practices intended to treat runoff from a contributing area of multiple parcels (normally on the order of 10s or 100s of acres or larger). Regional practices include *infiltration facilities* that promote groundwater recharge and *detention facilities* that encourage settling. Infiltration and detention regional BMPs can be either constructed as open-surface basins or subsurface galleries. Regional practices also include *constructed wetlands*, which use engineered wetland environments to encourage pollutant removal, and *treatment facilities*, which use either conventional or innovative treatment processes to target pollutants of concern or divert flows to sanitary sewer.

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Infiltration Facilities (Regional BMP)

Infiltration facilities are designed to decrease runoff volume through groundwater recharge and improve water quality through filtration and sorption. Facilities can incorporate engineered medias to improve percolation into native soils. Infiltration facilities can be open-surface basins or subsurface galleries.



BMP Performance Functions		Design Variations															
	Low High <table><tr><td>Infiltration</td><td></td><td></td><td></td><td></td></tr><tr><td>Storage</td><td></td><td></td><td></td><td></td></tr><tr><td>WQ Treatment</td><td></td><td></td><td></td><td></td></tr></table>	Infiltration					Storage					WQ Treatment					Several design variations include: • Surface Infiltration Basins: depressions designed to infiltrate stormwater into the subgrade soils. Facilities can be vegetated to encourage evapotranspiration and aesthetics. Also known as spreading grounds. • Subsurface Infiltration Galleries: underground storage systems designed to infiltrate stormwater into subgrade soils. Subsurface systems are used when limited area is available for BMP
Infiltration																	
Storage																	
WQ Treatment																	

Typical Design Components

Figure 4.A-1 presents a typical design and highlights potential design variations:

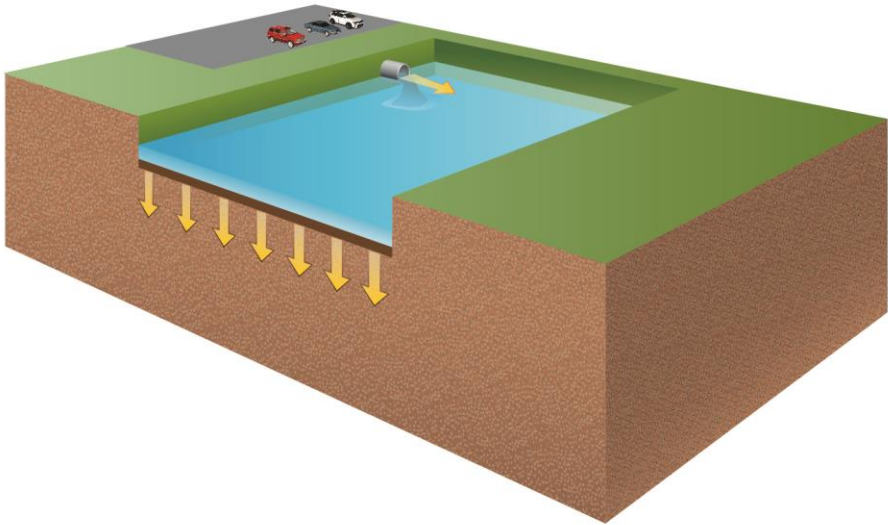


Figure 4.A-1. Typical regional infiltration facility schematic (arrows indicate water pathways).

Detention Facilities (Regional BMP)

Detention facilities are designed to detain runoff and improve water quality through pollutant settling. Facilities encourage settling by decreasing runoff flow rates and allowing ponding to occur. Detention facilities can be open-surface practices or subsurface galleries and can be dry during non-rainy seasons or wet year-round.



Surface Detention Basin



Subsurface Detention Gallery

BMP Performance Functions	Design Variations																		
Low High <table><tr><td>Infiltration</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Storage</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>WQ Treatment</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Infiltration						Storage						WQ Treatment						Several design variations include: Surface Detention Basins: basins designed to detain stormwater runoff for a specified time to allow sedimentation of particle-bound pollutants. Surface systems can have permanent pools or fully drain between storms. Subsurface Detention Galleries: underground storage systems designed to detain stormwater. Subsurface systems are used when limited area is available for BMP implementation.
Infiltration																			
Storage																			
WQ Treatment																			

Typical Design Components

Figure 4.A-2 presents a typical design and highlights potential design variations:

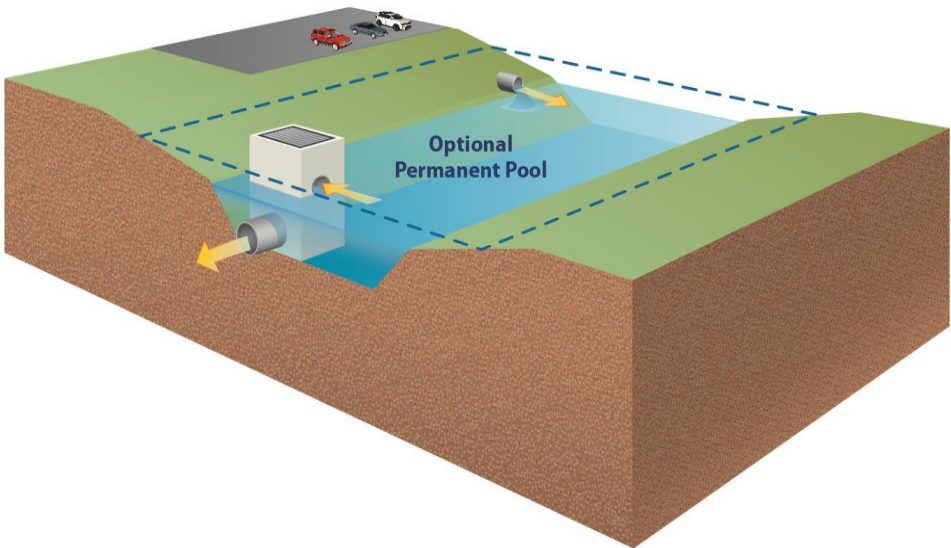
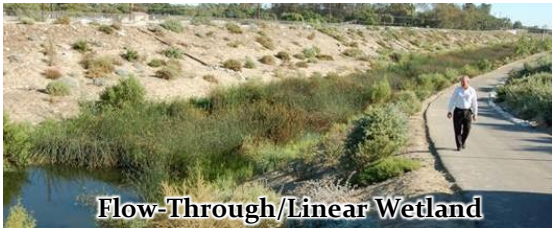


Figure 4.A-2. Typical regional detention facility schematic (arrows indicate water pathways).

Constructed Wetlands (Regional BMP)

Constructed wetlands are engineered, shallow-marsh systems designed to control and treat stormwater runoff. Particle-bound pollutants are removed through settling, and other pollutants are removed through biogeochemical activity. Constructed wetlands must always maintain a baseflow into the system, which can come from an intersected groundwater or an associated low-flow diversion utilizing dry-weather flows.



BMP Performance Functions		Design Variations																		
	Low High <table><tr><td>Infiltration</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Storage</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>WQ Treatment</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Infiltration						Storage						WQ Treatment						Several design variations include: • Wetland Basins: basins with shallow permanent pools and a temporary shallow ponding zone. An outlet control structure typically regulates dewatering of the temporary storage volume. • Flow-through/Linear Wetlands: wetlands that provide treatment as water passes through a long flow path. These wetlands are typically constructed parallel to existing channels such that water can be easily diverted.
Infiltration																				
Storage																				
WQ Treatment																				

Typical Design Components

Figure 4.A-3 presents a typical design and highlights potential design variations:

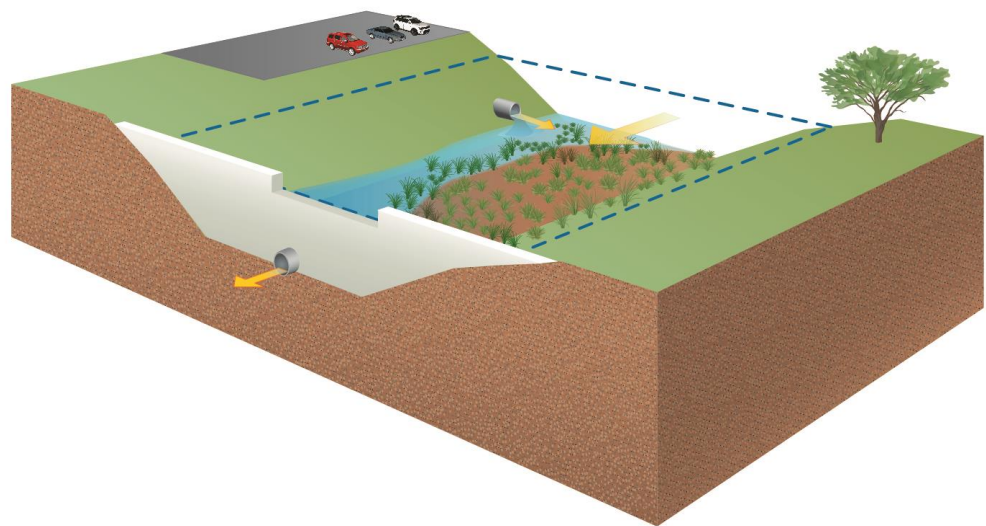
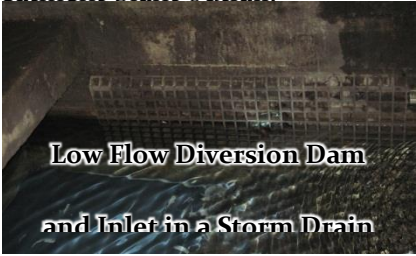
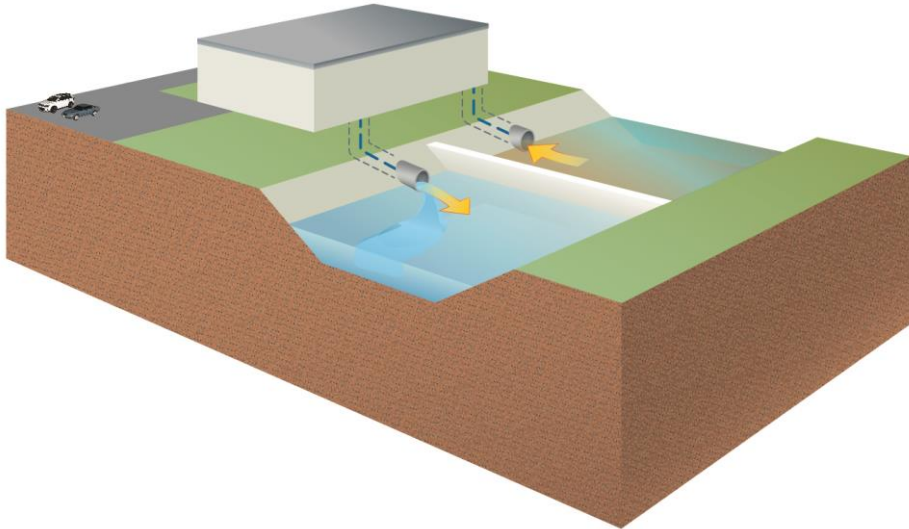


Figure 4.A-3. Typical regional constructed wetland schematic (arrows indicate water pathways).

Treatment Facilities (Regional BMP)

Other regional water quality technology falls into the *treatment facilities* subcategory. These systems typically divert flow from engineered channels to a treatment facility. Water is treated using physical, chemical, or radiological processes and is then used to offset potable water supply, returned to the original channel, or discharged to the treatment plant outfall.



BMP Performance Functions		Design Variations															
	Low High <table><tr><td>Infiltration</td><td></td><td></td><td></td><td></td></tr><tr><td>Storage</td><td></td><td></td><td></td><td></td></tr><tr><td>WQ Treatment</td><td></td><td></td><td></td><td></td></tr></table>	Infiltration					Storage					WQ Treatment					Treatment facilities design variations include: • Low Flow Diversion: a design flow rate (typically dry weather flow) is diverted from the storm drain to a sanitary sewer for treatment. • Treatment and Return: water is pumped or conveyed by gravity from a channel to a small-scale wastewater treatment facility where it is treated and discharged back into the original channel. Sometimes a portion of treated water can be diverted for reuse.
Infiltration																	
Storage																	
WQ Treatment																	
Typical Design Components																	
Figure 4.A-4 presents a typical design and highlights potential design variations: 																	
Figure 4.A-4. Typical regional treatment facility schematic (arrows indicate water pathways; a low flow diversion would direct flow to the nearby sanitary sewer).																	

BMP Fact Sheets for Distributed BMPs

Distributed BMPs are constructed structural practices intended to treat runoff relatively close to the source and typically implemented at a single- or few-parcel level (normally less than one acre). As described in the following BMP Fact Sheets, distributed BMPs include the following subcategories:

- Site-scale detention facilities
- Green infrastructure
- Flow-through treatment BMPs
- Source control structural BMPs

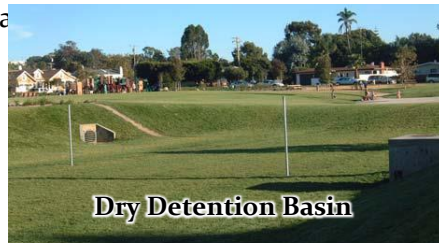
A major subcategory of distributed BMPs is *green infrastructure*. The Permit specifies that EWMPs should “incorporate effective technologies, approaches and practices, including green infrastructure.” The primary goal of distributed green infrastructure BMPs is to intercept and treat runoff near its source using resilient natural systems. As opposed to traditional *gray infrastructure*, green infrastructure relies on contact between runoff, soils, and vegetation to accomplish volume and pollutant reduction. Green infrastructure has been shown to cost-effectively reduce the impacts of wet-weather flows while also reducing BMP maintenance requirements (Kloss et al. 2006). In addition, green infrastructure can provide multiple benefits to the surrounding community, including increased property values, increased enjoyment of surroundings and sense of well-being, increased safety, and reduced crime rate (Ward et al. 2008; Shultz and Schmitz 2008; Wolf 2008; Northeastern Illinois Planning Commission 2004; Hastie 2003; Kuo 2003; Kuo et al. 2001a; Kuo et al. 2001b; Wolf 1998).

Structural BMPs incorporated into the green infrastructure subcategory include the following, as described in the BMP Fact Sheets below:

- Bioretention and biofiltration
- Permeable pavement
- Green streets
- Bioswales
- Infiltration BMPs
- Rainfall harvest (green roofs, cisterns and rain barrels)

Site-Scale Detention (Distributed BMP)

Site-scale detention facilities are designed to detain runoff from an individual parcel and improve water quality through pollutant settling. Site-scale detention facilities can reduce peak flows and improve water quality by storing water in a basin before slowly draining the water through an orifice to the downstream waterway. Settling of sediment and sediment-bound pollutants is the primary pollutant

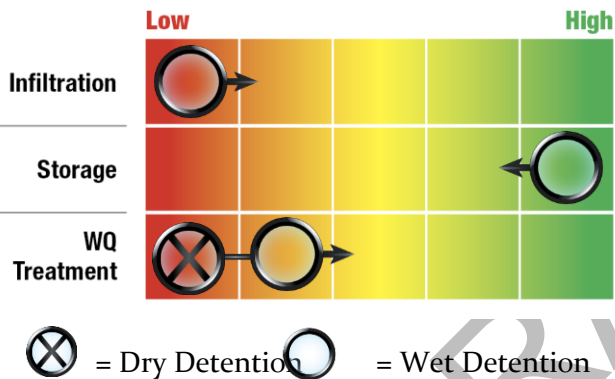


Dry Detention Basin



Wet Detention Pond

BMP Performance Functions



Design Variations

Several design variations include:

- **Dry Detention Basins:** Runoff ponds on the basin surface and fully drains between storm events. The drawdown orifice is located at the bottom of the basin.
- **Wet Detention Pond:** Runoff is captured in a temporary storage zone above a permanent pool. The drawdown orifice sets the depth of the permanent pool.
- **Detention Chambers:** Subsurface chambers or vaults designed to detain

Typical Design Components

Figure 4.A-5 presents a typical design and highlights potential design variations:

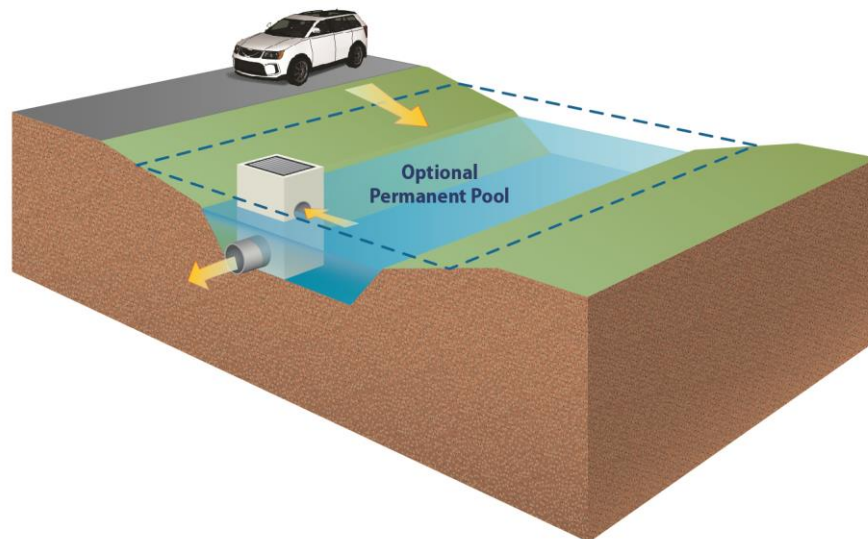


Figure 4.A-5. Typical distributed site-scale detention schematic (arrows indicate water pathways).

Bioretention and Biofiltration (Green Infrastructure BMP)

Bioretention and biofiltration are vegetated BMPs designed to capture and filter stormwater runoff through a soil layer. Following filtration, treated runoff infiltrates underlying soils (bioretention), or, if the subgrade has poor permeability, exits through an underdrain to the downstream conveyance network (biofiltration). Vegetation can enhance biological treatment processes.



Residential Bioretention

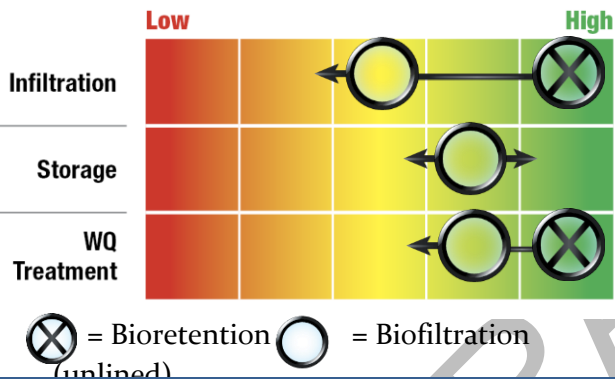


Bioretention in an Alley



Parking Lot Biofiltration

BMP Performance Functions



Design Variations

Several design variations include:

- **Bioretention:** shallow, depressed, vegetated basins with permeable soil media. Runoff temporarily ponds on the surface before filtering through the soil. Bioretention does not include underdrains.
- **Biofiltration:** bioretention areas with underdrains. Infiltration is considered incidental, although substantial infiltration can occur in some unlined

Typical Design Components

Figure 4.A-6 presents a typical design and highlights potential design variations:

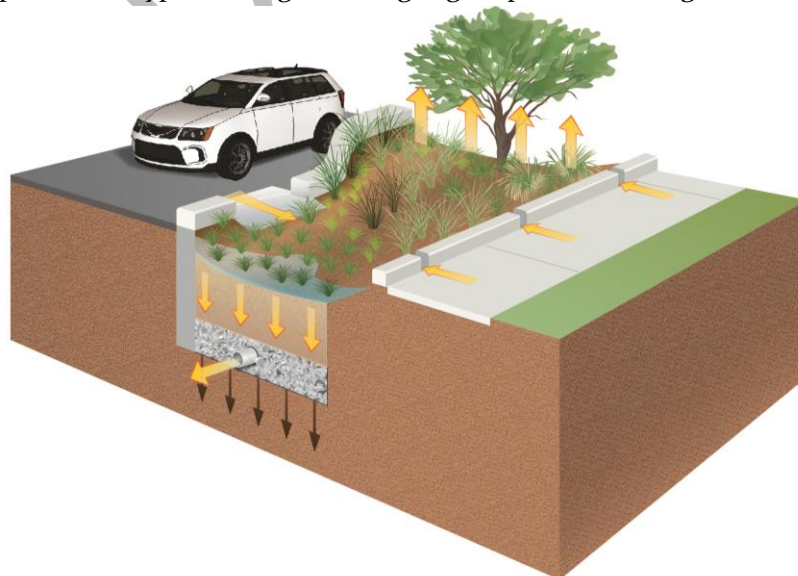
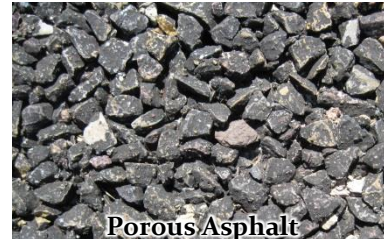


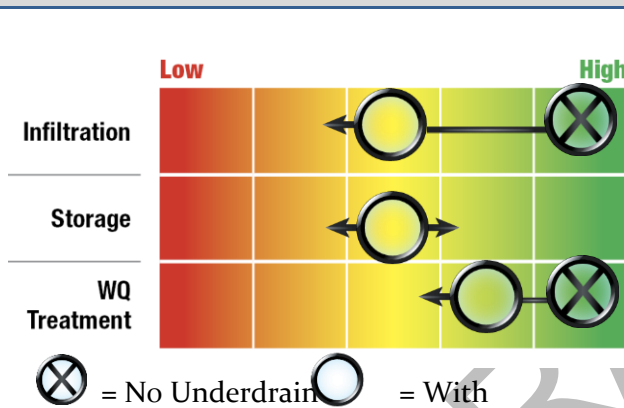
Figure 4.A-6. Typical distributed bioretention and biofiltration schematic showing underdrain option (arrows indicate water pathways).

Permeable Pavement (Green Infrastructure BMP)

Permeable pavement is a stable load-bearing surface that allows for stormwater infiltration. Beneath the permeable surface is a crushed-rock reservoir that provides structural support while allowing runoff to percolate to the underlying soils. Permeable pavement can be fully infiltrating or can have an underdrain like bioretention and biofiltration practices, respectively?



BMP Performance Functions



Design Variations

Several design variations include:

- **Pervious Concrete:** fines are excluded from typical concrete aggregate to create permeable void space within the section.
- **Porous Asphalt:** fines are excluded from typical hot-mix asphalt to create pores within the section.
- **Permeable Interlocking Concrete Pavers:** Pavers that allow infiltration of rainwater through joints between the blocks.

Typical Design Components

Figure 4.A-7 presents a typical design and highlights potential design variations:

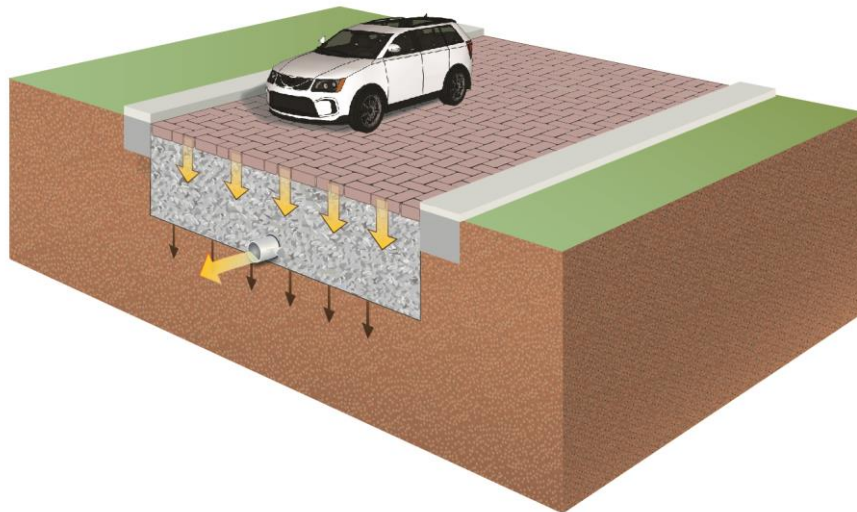


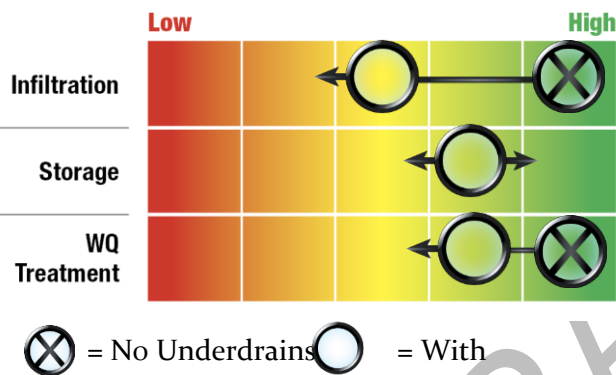
Figure 4.A-7. Typical distributed permeable pavement schematic showing underdrain option (arrows indicate water pathways).

Green Streets (Green Infrastructure BMP)

Green streets are systems of multiple BMPs arranged in a linear fashion within the street right-of-way (as opposed to a parcel-based implementation). Green streets are designed to reduce runoff and improve water quality for the runoff from the roadway and adjacent parcels. Bioretention, biofiltration, and permeable pavement BMPs are commonly used in conjunction and can be hydraulically connected using subsurface stone reservoirs.



BMP Performance Functions



Design Variations

Green streets can feature several design variations. Some common features include:

- **Linear Bioretention/Biofiltration:** BMPs can be incorporated as linear systems between the road and parcel to intercept runoff from both roadways and properties.
- **Curb Extensions:** bioretention/biofiltration BMPs “bumpouts” can intercept gutter flow.
- **Permeable Parking Lanes:** street

Typical Design Components

Figure 4.A-8 presents a typical design and highlights potential design variations:



Figure 4.A-8. Typical distributed green street schematic (arrows indicate water pathways).

Infiltration BMPs (Green Infrastructure BMP)

Infiltration BMPs capture and infiltrate runoff into underlying soils. Runoff is typically stored in subsurface trenches or pits filled with engineered soil media, gravel, or concrete chambers. Some infiltration BMPs that inject water into subsurface reservoirs are considered class V injection wells and must be registered as such. Infiltration BMPs are unvegetated (see Bioretention for vegetated p



Source: www.peerlessconcrete.com

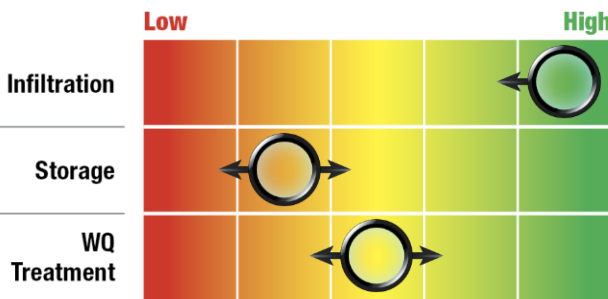


Infiltration Trench



Infiltration Trench

BMP Performance Functions



Design Variations

Several design variations include:

- **Infiltration Trench:** a media-filled trench that captures runoff in the pore space of gravel or soil prior to infiltration.
- **Dry/Wet Well:** a gravel-surrounded vault with perforated walls that receives runoff from a pipe and allows direct infiltration into the ground.
- **Rock Well:** a gravel-filled pit that receives runoff from a pipe. This BMP is

Typical Design Components

Figure 4.A-9 below presents a typical design and highlights potential design variations:

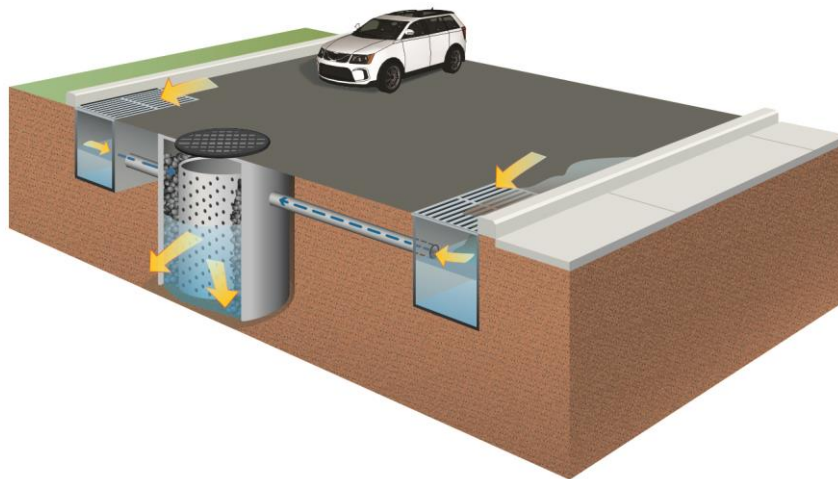
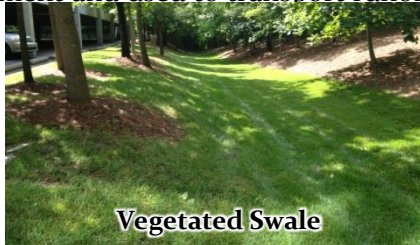


Figure 4.A-9. Typical distributed infiltration BMP schematic showing perforated concrete dry well variation (arrows indicate water pathways; for infiltration trenches, see Figure 4.A-6 and omit vegetation).

Bioswales (Green Infrastructure BMP)

Bioswales are practices that convey uniform sheet flow through vegetated, shallow depressions to remove sediment-associated pollutants by settling and straining. Infiltration and filtration through soil media are not key components of bioswales; rather, bioswales are typically implemented to act as pretreatment and used to transport runoff to an associated structural BMP.

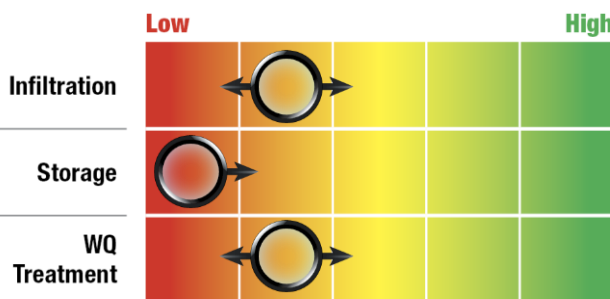


Vegetated Swale



Vegetative Filter Strip

BMP Performance Functions



Design Variations

Several design variations include:

- **Vegetated Swale:** linear, vegetated channels used to convey concentrated flow from the contributing area to a structural BMP. Check dams can be added in areas of steep slopes or to further decrease the flow rates and spread the runoff over a larger area.
- **Vegetative Filter Strip:** broad-sloped, vegetated areas used to convey sheet flow from the contributing area to a structural BMP or other conveyance

Typical Design Components

Figure 4.A-10 presents a typical design and highlights potential design variations:

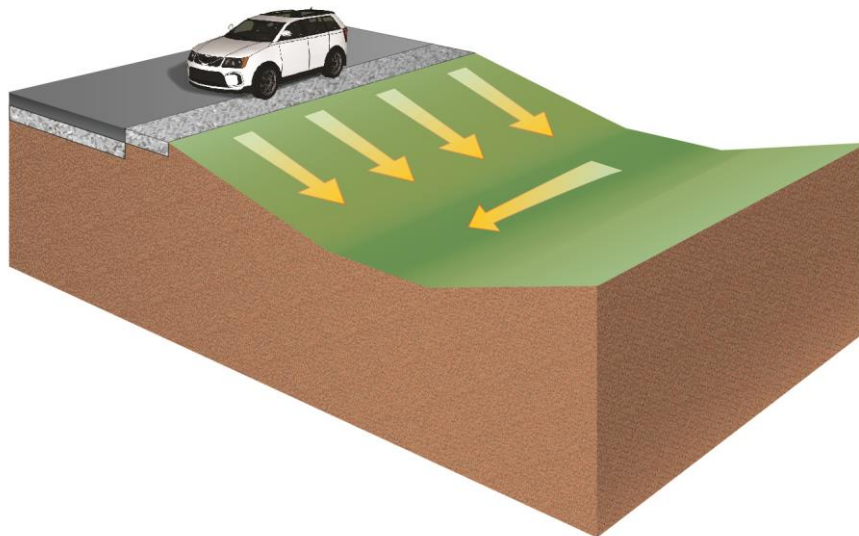


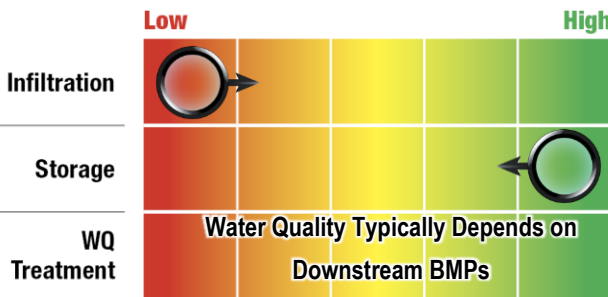
Figure 4.A-10. Typical distributed bioswale schematic (arrows indicate water pathways).

Rainfall Harvest (Green Infrastructure BMP)

The primary goal for rainfall harvest is improving water quality by intercepting rooftop runoff and lowering the overall impervious impact of a developed site. Runoff can be reduced through interception and evapotranspiration on green roofs or used for alternative uses with a cistern or rain barrel.



BMP Performance Functions



Design Variations

Several design variations include:

- **Green Roof:** engineered, vegetated roof structures intended to intercept rainfall in a growing medium. Rooftop detention can be incorporated if structures allow.
- **Cisterns and Rain Barrels:** storage tanks used to intercept and store rooftop runoff. Captured runoff can be reused to offset non-potable water uses such as irrigation and toilet flushing. Alternatively, stored water can be slowly released to a pervious surface.

Typical Design Components

Figure 4.A-11 presents a typical design and highlights potential design variations:

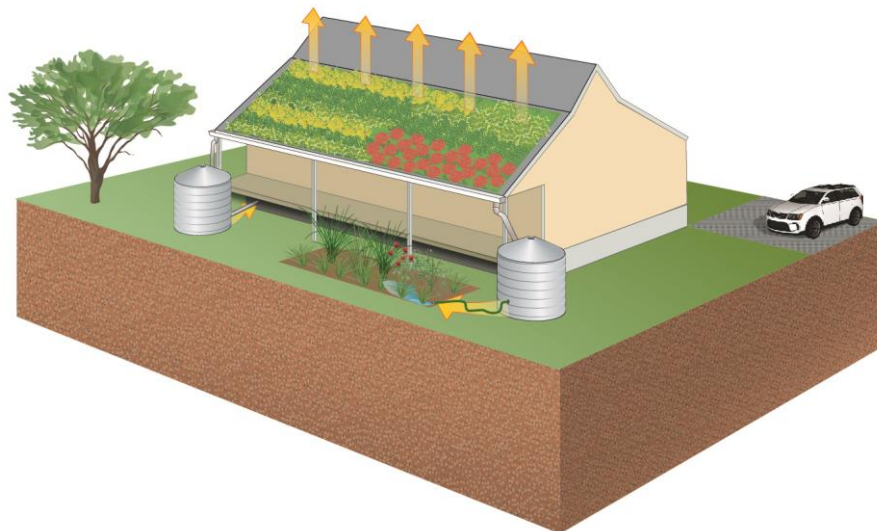
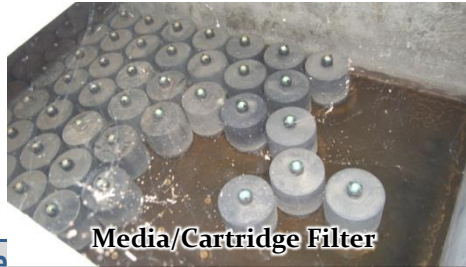


Figure 4.A-11. Typical distributed rainfall harvest schematic (arrows indicate water pathways).

Flow-Through Treatment BMP (Distributed BMP)

Manufactured flow-through devices are commercial products that aim to provide stormwater treatment using patented, innovative technologies. Typical types of manufactured devices for stormwater management include cartridge filters, media filters, and high-flow biotreatment devices.



Media/Cartridge Filter



High-Flow Biotreatment

(photo source: Jonathan Page, NCSU-BAE)

BMP Performance Functions

	Low				High
Infiltration					
Storage					
WQ Treatment		Varies based on BMP			

Design Variations

Several design variations include:

- **Media/Cartridge Filters:** proprietary filtration devices used to remove pollutants.
- **High-Flow Biotreatment Device:** modular, vault-type practices containing high-flow media. Typically incorporate vegetation.

Typical Design Components

Figure 4.A-12 presents a typical design and highlights potential design variations:

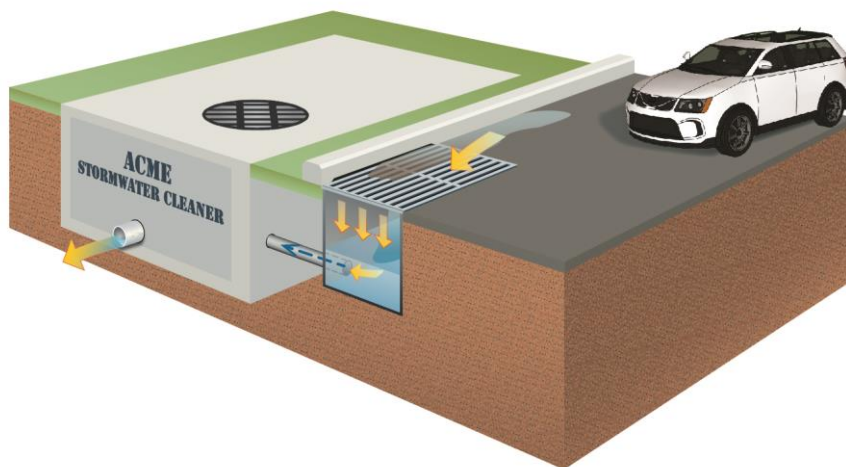


Figure 4.A-12. Typical distributed flow-through treatment BMP schematic (arrows indicate water pathways).

Source Control Structural BMPs (Distributed BMP)

Source control structural BMPs are commercial products designed to treat runoff in highly urbanized environments. Mechanical separation, or more complex physicochemical processes, provides separation of gross solids and other pollutants. Many models feature media or materials designed to sequester hydrocarbons and other pollutants. Also includes trash full-capture devices.



Catch Basin Insert

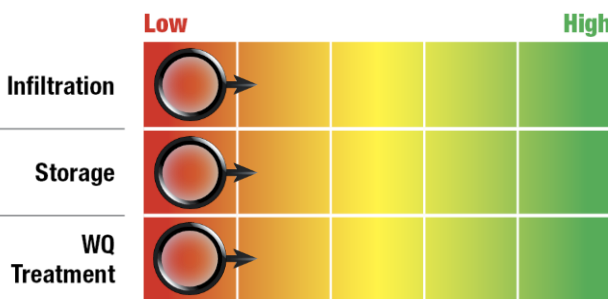


Hydrodynamic Separator



Catch Basin Insert

BMP Performance Functions



Design Variations

Several design variations include:

- **Hydrodynamic Separators:** mechanical devices that use screens, baffles, and/or vortical flow to separate sediment and gross solids.
- **Catch Basin Inserts:** inserts that use nets, screens, fabric, and/or filtration media to gross solids, fine sediments, oils, and/or grease from runoff entering a catch basin.

Typical Design Components

Figure 4.A-13 presents a typical design and highlights potential design variations:



Figure 4.A-13. Typical distributed source control structural BMP (arrows indicate water pathways).

Appendix 4.B

Regional Project Selection Process

DRAFT

DRAFT TECHNICAL MEMORANDUM

REGIONAL PROJECT SELECTION PROCESS AND PRELIMINARY LIST OF PROJECTS

PREPARED FOR

Ballona Creek Watershed Management Group

OCTOBER 2014

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APPENDICES

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Appendix E – List of Parcels in the Medium Tier/School Districts Only

1 Background

The purpose of this memo is to describe the outcome of the process used by the Ballona Creek (BC) Watershed Management Group (WMG) to select a preliminary list of regional projects that will be evaluated for inclusion in the Enhanced Watershed Management Plan (EWMP) to be submitted to the Regional Board in June 2015. The results of this process will be used to develop a set of regional projects, as well as to develop a set of potential regional project locations that can be evaluated for inclusion during future EWMP updates through adaptive management.

The EWMP development process defined on page 48 of the MS4 permit allows for: "... collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others."

In discussions with WMG members, it was determined that it would be useful to identify and include the broadest group of all potential regional BMP projects and locations, and not simply the subset of projects that could capture the 85th percentile storm, referred to as Regional EWMP Projects. Goals of the regional projects selection process include the following:

- To demonstrate regulatory progress: The regional projects envisioned by the WMG are structural BMPs intended to collect and treat runoff from a large contributing area, normally composed of multiple land uses and many parcels. These projects will provide progress towards compliance, and their effectiveness will be quantified by the Reasonable Assurance Analysis. Even regional projects that are unable to retain the 85th percentile, 24-hour storm can be quite cost-effective for stormwater management.
- To provide a road map: The EWMP is intended to be a road map which guides WMG members and their respective Public Works Departments, Planning Departments, and elected officials on specific projects and project locations being considered in their jurisdictions. Through the process of identifying and evaluating potential regional BMPs, the WMG members and the consultant team will suggest specific potential project locations (both Regional EWMP Projects and regional BMPs) for inclusion in the EWMP. The EWMP will then serve as a useful tool to WMG members who are developing and implementing capital improvement programs.
- To illustrate a vision for the future: The EWMP is expected to provide a clear vision for the future of stormwater management in the watershed, including signature regional projects. These projects will clearly demonstrate value and progress, and their success will help build public support and momentum for additional projects and the funding needed to support them.

The following sections present the methodology employed to develop the list of potential regional project locations for initial screening, and the resulting preliminary list of regional projects.

2 Methodology for Developing a Set of Regional Projects

The process for selecting regional project locations was developed based on the input and guidance of the WMG at monthly meetings, as well as individual discussions with many of the member agencies. The process for identifying potential regional project locations and selecting the preliminary list of potential regional projects in the BC watershed is described below.



2.1 STEP 1 – COMPILE EXISTING/PLANNED REGIONAL PROJECT LOCATIONS

Planned and potential regional BMPs have been identified in a number of watershed management or TMDL implementation plans developed by public agencies or organizations in the watershed over the past decade or more. A summary list of these planning documents and a detailed list of these planned regional BMPs were compiled as a part of the process to develop the EWMP Work Plan and submitted to the Regional Board in June 2014. While some of the projects in these plans have been implemented, many are still in the planning stages, and not yet implemented. These potential or “planned” regional BMPs identified in Step 1 represent projects that could be incorporated into the EWMP. This compiled list of planned regional BMPs was combined with the list of potential new regional project locations identified in Step 2 below, and evaluated together in Step 3 below.

2.2 STEP 2 – IDENTIFY NEW/POTENTIAL REGIONAL PROJECT LOCATIONS

In addition to developing a comprehensive list of planned regional projects in Step 1, a more comprehensive analysis was conducted in Step 2 to identify other new/potential regional project locations that were not known to have been previously identified as candidates. Opportunities and constraints for potential regional project locations were identified in discussions with WMG members. Corresponding data sets were identified to assist with this initial screening analysis including the Los Angeles County parcel land base geographic information system (GIS), the 2013 Los Angeles County tax assessor information, and other watershed data. All parcels within the watershed were evaluated according to GIS criteria such as: parcel ownership, land use, parcel size, slope, proximity to 36” storm drain or open channel, tributary drainage area and other criteria described in more detail below. Each parcel was scored according to these criteria with the intent of developing a repeatable and transparent methodology. A summary is presented in Table 2-1 below of the initial GIS screening criteria, and the fatal flaws used in the analysis.

It should be noted that although the screening process is presented below as a series of criteria in a stepwise manner, multiple iterations and queries enabled WMG members to evaluate alternatives and make decisions throughout the process. The summary presented below is intended to characterize the process in the simplest manner, and the order of the criteria presented does not represent order of importance.

Furthermore, the MS4 permit describes that EWMP projects should be implemented “where feasible” and thus, reasons for infeasibility will be documented. These fatal flaws were defined by the WMG and serve as the basis for determining where projects are feasible. They may be revisited in future iterations of EWMP updates. For example, privately-owned parcels were excluded from this initial analysis because of significant issues that would need to be addressed before WMG members can enter into agreements to develop projects on these sites. In addition, parcels less than ¼-acre were excluded, because of the initial assumption that the footprint available for a regional BMP would not be large enough to allow for a significant project.

Table 2-1 Initial GIS Screening Summary

CRITERIA	FATAL FLAW (EXCLUDE FROM FURTHER ANALYSIS)	SCORE				
		Low Priority			High Priority	
		1	2	3	4	5
Ownership	Privately-owned Federally-owned State-owned Cemeteries Jails/prisons Fire stations	Airports Public Schools (K-12)	---	Colleges Universities	Everything else	Park Golf courses
Upstream Tributary Land Use	Un-urbanized area: • Vacant • Undifferentiated • Undeveloped local/regional park • Mineral & oil Production	---	---	---	---	All Urbanized Areas
Parcel Size	< 1/4 acre	0.50 to 0.49 acre	0.50 to 0.99 acre	1.0 to 4.9 acre	5.0 to 24.9 acre	>=25 acres
Slope	>20%	15-19%	---	5-15%	---	0-5%
Proximity to 36" Storm Drain or Open Channel	>= 1000'	500-1000'	---	100-499'	---	<100'
Soil Contamination/ Liquefaction Potential	---	Within 100'	Liquefaction Area	---	---	Everything else
Tributary Drainage Area Size	---	Beyond 1000' of sub- watershed outlet	Small Drainage Area < 25 th Percentile	26-50 th Percentile	51-75 th Percentile	Large Drainage Area > 75 th Percentile
Water Quality Benefit	---	Less than 0.20 lbs/ac/yr	0.20 - .049	0.5 - .69	.70 - .99	Greater than 1
Impervious Area (acres of impervious area in sub- watershed)	---	Beyond 1000' of sub- watershed outlet	Under 100 acres	100-400 acres	400-800 acres	800-2100 acres

The following sections (2.2.1 – 2.2.10) provide further details on the initial GIS screening process and the criteria used to select and rank the potential regional project locations. Figure 2-1 presents a depiction of the sequential results generated during this initial screening process.

2.2.1 Parcel Ownership

The County of Los Angeles Office of the Assessor published the Local Roll Release in July 2013 from its Property Assessment Information System (PAIS). The publication indicates a total of 287,651 parcels are located within the Ballona Creek watershed. This dataset includes only parcels with an APN number, and does not include easements, alleys, or right-of-way. Public ownership was the initial selection criterion chosen by the WMG members, based on the assumption that it is infeasible at this time for WMG members to commit to developing regional BMPs on privately-owned parcels.

A subset of 4,236 parcels was identified as publicly-owned (as officially defined by the tax assessor with a 900 suffix in the APN numbering system). At the direction of the WMG members, 339 additional publicly-owned parcels were initially removed from consideration because they were either state or federally-owned, a cemetery, prison, or fire station, and deemed infeasible for further consideration at this time.

2.2.2 Upstream Tributary Land Use

The resulting 3,897 publicly-owned parcels were then evaluated using Land Use Dataset as published in 2005 by Southern California Association of Governments (SCAG). The following land use types were excluded from further analysis: vacant undifferentiated, undeveloped local/regional park, and mineral-oil facilities. As a result, 556 parcels were excluded, with 3,341 potential regional site locations remaining.

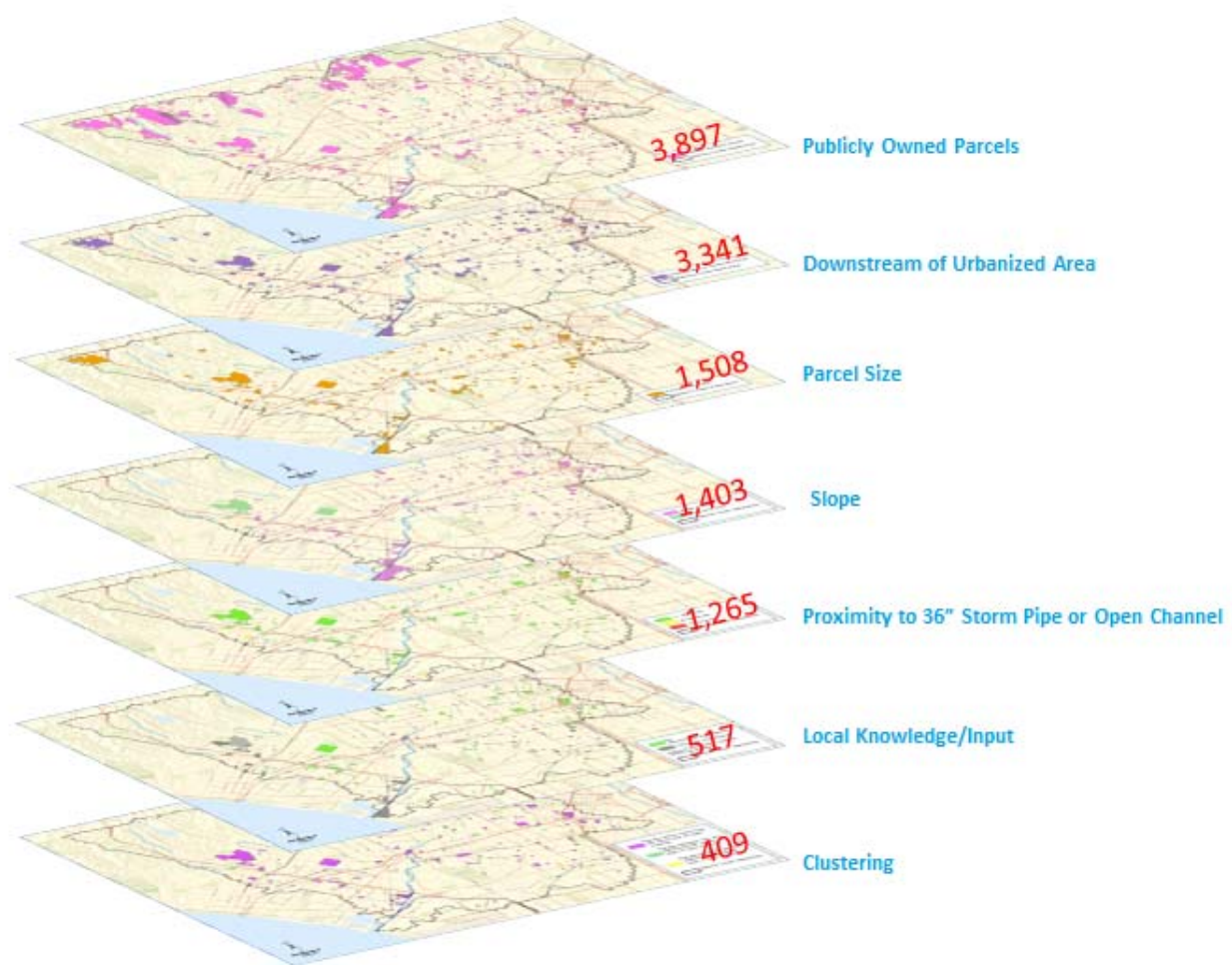
2.2.3 Parcel Size

Small parcels (less than $\frac{1}{4}$ acre in size) were excluded from the analysis as inappropriate for further analysis at this time. This resulted in 1,508 candidate parcels. A histogram of the data for all remaining candidate parcels was developed and parcels were assigned relative scores based on parcel size (larger parcels = 5, smaller parcels = 1).

2.2.4 Slope

USGS's Digital Elevation Model (40 foot contour quad map) was used to estimate the average slope of each parcel in the watershed. The grid size used in the analysis was 100 feet. Any parcels with an average slope greater than 20% were excluded in further screening as infeasible, resulting in 1,403 parcels. Remaining parcels were then scored according to slope (flat slope = 5, steeper slope = 1).

Figure 2-1 Process Overview



2.2.5 Proximity to Storm Drain or Open Channel

The Los Angeles County storm drain system is represented within a geometric network model representing the storm drain infrastructure within Los Angeles County. This GIS data (published 6/2014) was used to determine proximity to a 36-inch storm drain (or larger). In addition, the National Hydrography Dataset was used as the data source for the location of all open channels in the watershed. Any parcels which was not within 1,000-feet from a 36-inch storm drain or open channel was excluded from further analysis. The resulting 1,265 parcels were then scored with a relative proximity to a storm drain or open channel (proximity greater than 500 feet = 1, proximity within 100 feet = 5).

2.2.6 Soil Contamination and Liquefaction Potential

Brownfield site locations were obtained directly from the State of California's Department of Toxic Substances Control. LA County's Liquefaction GIS layer was also used to evaluate relative value of parcels for potential regional project locations. Parcels within 100 feet of a brownfield site or liquefaction area received a 1 or 2 score, respectively. All other parcels were assigned a high score (5). No parcels were excluded during this analysis, thus resulting in 1,265 potential regional project locations.

2.2.7 Tributary Drainage Area Size

In recognition that larger tributary drainage areas will very likely generate greater pollutant loadings in this heavily urbanized watershed, estimates of tributary area within 1000 feet of the outlet of each subwatershed were generated. The subwatershed GIS layer from the Watershed Management Modeling System (WMMS) was used as the primary data source for estimating tributary drainage area. In Ballona Creek, there are 114 subwatersheds. For parcels within 1000 feet of a subwatershed outlet, the subwatershed area was used as a surrogate for potential drainage area that could be captured by a regional BMP on the parcel. Parcels were scored according to estimated tributary drainage area based on the relative size of the nearby WMMS subwatershed (high tributary drainage area = 5, and low drainage area = 2) for parcels within 1000 ft from the outlet of a subwatershed. For parcels not within 1000 feet of a subwatershed outlet, a score of 1 was assigned.

2.2.8 Water Quality Benefit

To estimate the potential water quality benefit associated with implementing a project on each parcel, the Loading Simulation Program – C++ (LSPC) watershed model in the Watershed Management Modeling System (WMMS) was used to quantify the yield of total zinc [lbs/acre/year] for each of the 114 subwatersheds in the Ballona Creek watershed. Zinc was used because it has been identified as a limiting pollutant for the RAA. Subwatersheds with greatest zinc yield (greater than 1 lb/ac/year) were assigned a high score (5), and areas with progressively smaller zinc loadings were assigned progressively smaller scores (from 4 to 1). Parcels within those subwatersheds were assigned the same zinc-ranked scores to highlight areas where the most BMP capacity is likely needed to address Water Quality Priorities.

2.2.9 Impervious Area

The subwatershed GIS layer from the Watershed Management Modeling System (WMMS) was also used as the primary data source for estimating impervious area. In recognition that tributary areas with greater imperviousness will generate higher runoff volumes, estimates of the amount of impervious area (acres) for each of 114 subwatersheds were developed. Similar to tributary drainage area, the impervious area of the nearby subwatershed was used to assign a score to each parcel. High impervious values were assigned a high score (5) and low impervious values were assigned a low score (2). Parcels beyond 1000 feet of an outlet of a WMMS subwatershed were assigned a value of (1).

2.3 STEP 3 – EVALUATE/PRIORITIZE REGIONAL PROJECT LOCATIONS

2.3.1 Local Knowledge and Input from Member Agencies

The initial GIS screening analysis identified 1,265 parcels not subject to fatal flaws, which were scored and ranked for each WMG member and for the watershed as a whole, utilizing the scoring criteria described in Section 2.2 above. Maps and corresponding lists were distributed to each of the member agencies, and each member agency then used local knowledge to further refine the initial screening.

Based on written and verbal feedback from the member agencies, many additional parcels were removed from consideration as infeasible at this time, primarily due to the single criterion that the

parcels were not owned by them. (The WMG members originally requested a database of all publicly-owned parcels within their jurisdictions. Many publicly-owned parcels are owned by public agencies other than the WMG members.) Other reasons used to determine infeasibility during this step in the process included: recent improvements to the site, buildings not identified on the GIS layer, known contamination or other local constraints, or simply the GIS layer was inaccurate. A total of 517 parcels were confirmed to be strong candidates for potential regional project locations. Some WMG members chose to include school sites that met the GIS screening criteria in their list, even though these sites are owned by school districts which are separate government agencies. The rationale for including these sites as a special case is discussed in further in the next section.

2.3.2 Final Score & Ranking

A final score was calculated for each parcel using a subset of the criteria in Table 2-1 above in order to emphasize potential *water quality benefit*. Based on discussions with the WMG members, the other criteria such as soil contamination, slope and other constraints were not used in the final scoring to ensure sites with the highest potential water quality benefit were emphasized. The criteria used for final score and ranking were the following:

- Parcel Size
- Tributary Drainage Area
- Water Quality (Zinc)
- Impervious Area

2.3.3 Clustering

To emphasize opportunities rather than parcels, parcels located directly adjacent to each other were clustered together into groups for the purposes of identifying potential regional project locations. A total of 517 individual parcels were further refined into 409 clusters, each with a unique ID numbering system. The score for each parcel within each cluster was area-weighted to develop a cumulative score for each cluster. Each cluster was then ranked within each WMG jurisdiction, as well as throughout the watershed as a whole, to allow WMG members to evaluate the relative value of each potential regional project location. Maps and summary tables for each of the 411 clusters can be found in Appendices A – E.

3 Step 4 – Recommend Projects for Implementation

The process of identifying potential regional project locations has generated a large list of opportunities that will be useful in capital planning for years to come. The WMG members determined it would be helpful to define several tiers of opportunities within that large list to assist them with planning and implementation.

3.1.1 Tier Definition for Regional Projects

Using the scoring system and local knowledge, three tiers were created based on an understanding that multiple planning horizons are being addressed through the EWMP process and its regional project selection process. As a general guide, the following three tiers were defined:

Table 3-1 Tier Classification

TIER	DEFINITION	
	Potential Planning Horizon for Further Evaluating Project Feasibility	Approach for Project Inclusion during EWMP Development
Very High	0 – 2 years	Projects will be included in EWMP, with details on each. Project effectiveness will be analyzed individually by the RAA. A subset of eight (8) projects will be subject to feasibility screening.
High	2 – 5 years	Projects will be included in EWMP but details on individual projects will not be presented. Overall effectiveness of entire tier of projects will be evaluated in bulk (not individually) by the RAA.
Medium	> 5 years	Projects will not be included in EWMP, but potential bulk effectiveness of this tier of projects will be quantified by the RAA modeling system to support future planning discussions.

The WMG recognizes that development of regional projects can take many years to permit, design, fund, and construct. However, in order to meet the aggressive compliance deadlines required by the MS4 Permit and TMDLs, details on a subset of projects (Very High) will be provided to the WMG in order to “jump start” the planning process. A second tier of project opportunities (High) will be included in the EWMP with less detail but will still provide the WMG with an understanding of the likely next set of projects to be considered for implementation. A third category of project opportunities (Medium, including school properties) will be provided to the WMG for future consideration, recognizing that agreements with other land owners can be developed.

3.1.2 Tier Classification for Regional Projects

Planned projects from previous watershed plans and TMDL Implementation Plans identified in Step 1 were mapped in GIS and overlaid with the 696 clusters identified as potential new regional project locations in Step 2. The majority of the planned projects were confirmed through the initial GIS initial screening analysis to be strategically located to accomplish significant water quality

benefits. Each WMG member agency received an updated map and list which was a compilation of planned projects from Step 1 and potential new regional project locations from Step 2. Based on discussions with WMG members, regional project opportunities were classified into the three tiers as follows:

- **Very High:** Parcels (or clusters of parcels) previously identified as Planned Projects in Step 1, and also identified as having scored highly in Step 2 for potential new regional project locations were placed in the “Very High” tier. In addition, some agencies nominated projects/locations to this tier due to local interest, public acceptance or political momentum.
- **High:** Parcels (or clusters of parcels) which scored highly and owned by WMG Members were placed in the “High” tier.
- **Medium:** Parcels (or clusters of parcels) which met the initial GIS screening criteria, but not owned by WMG Members, were placed in the “Medium” tier. For example, schools identified in either Step 1 or Step 2 were placed in the “Medium” tier, with the recognition that while these sites could likely provide significant water quality benefits, there are institutional challenges that must be addressed in the coming years to develop appropriate agreements with local school districts to move forward with regional projects on these sites.

WMG members could elect to move a regional project location to a higher or lower tier based on local knowledge, project readiness, or other factors, such as their jurisdiction did not include a site which met the Very High. The recommended projects are summarized in Section 3.1.3 below.

Table 3-2 Tier Selection Criteria

TIER	SELECTION CRITERIA			WMG INPUT
	Scored Highly in the GIS Screening Criteria and also a Planned Project	Met GIS Screening Criteria and Owned by WMG Member	Met GIS Screening but not Owned by WMG Member	Met GIS Screening and the agency chose to nominate the site to Very High
Very High	X			X
High		X		
Medium			X	

3.1.3 Resulting Regional Project List

This section includes a series of tables and figures that present a summary of regional projects, or potential regional project locations, to be evaluated for inclusion in the EWMP for each WMG member. It is important to note that while regional project candidates are organized by jurisdiction, many of the projects would be multi-jurisdictional because they manage runoff from large upstream areas. The following tables and figures show the results of initial screening for regional projects:

- Table 3-3: WMG Summary - Number of Regional Project Opportunities by Tier
- Figure 3-1: Regional Project Opportunities - Location Map
- Figure 3-2: Regional Project Opportunities - Location by Subwatershed
- Table 3-4: Regional Project Opportunities – Very High Tier
- Figure 3-3: Regional Project Opportunities - Very High Tier Locations

Additional detailed lists and maps can be found in Appendix A through D.

Table 3-3 Member Agency Summary

MEMBER AGENCY	VERY HIGH TIER	HIGH TIER	MEDIUM TIER
City of Beverly Hills	1	0	13
City of Culver City	1	1	20
City of Inglewood	1	2	8
County of Los Angeles	1	0	2
City of Los Angeles	21	37	295
City of West Hollywood	1	2	3
TOTAL (CLUSTERS)	26	42	341

Figure 3-1 Regional Project Opportunities - Location Map

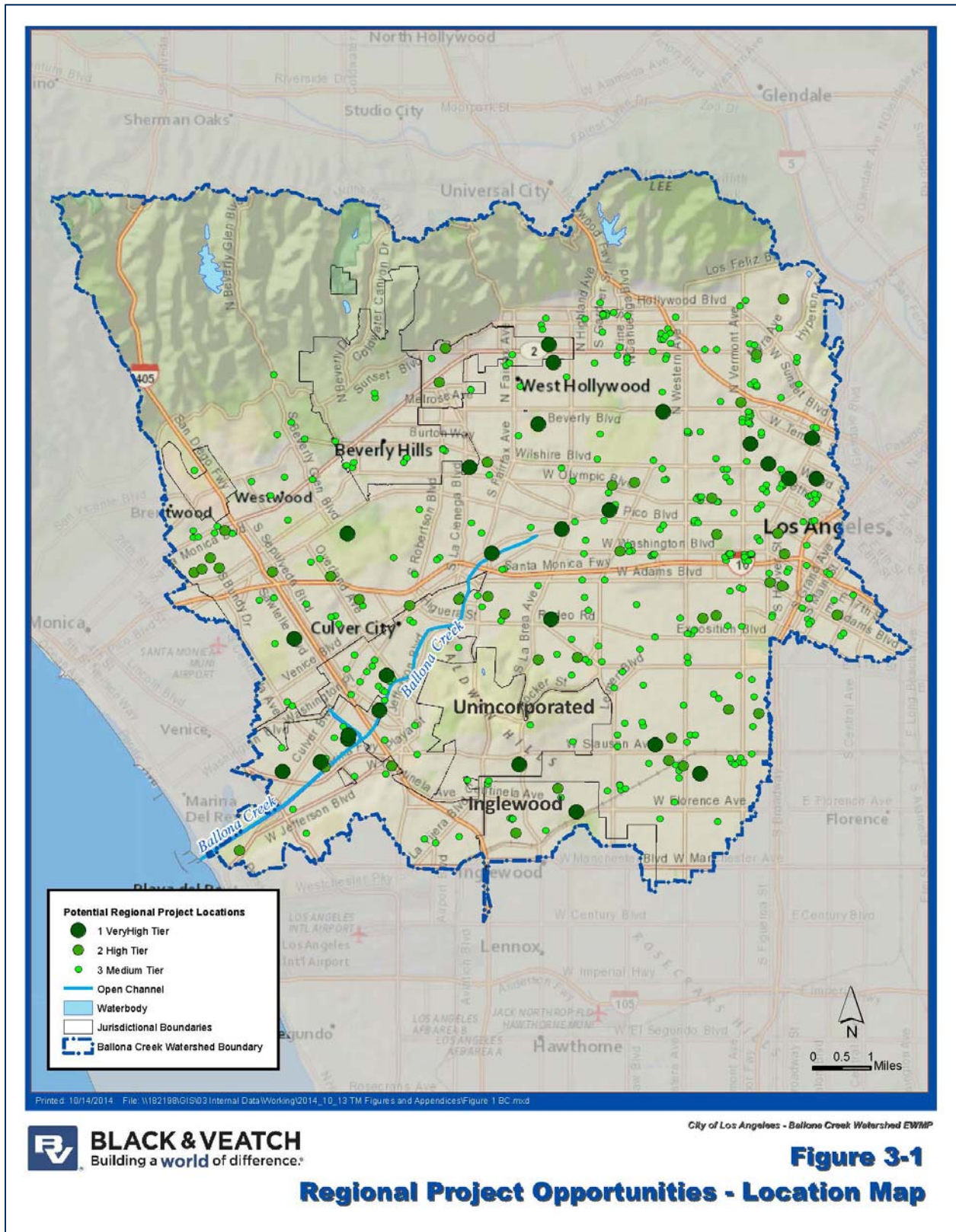


Figure 3-2 Regional Project Opportunities - Location by Subwatershed

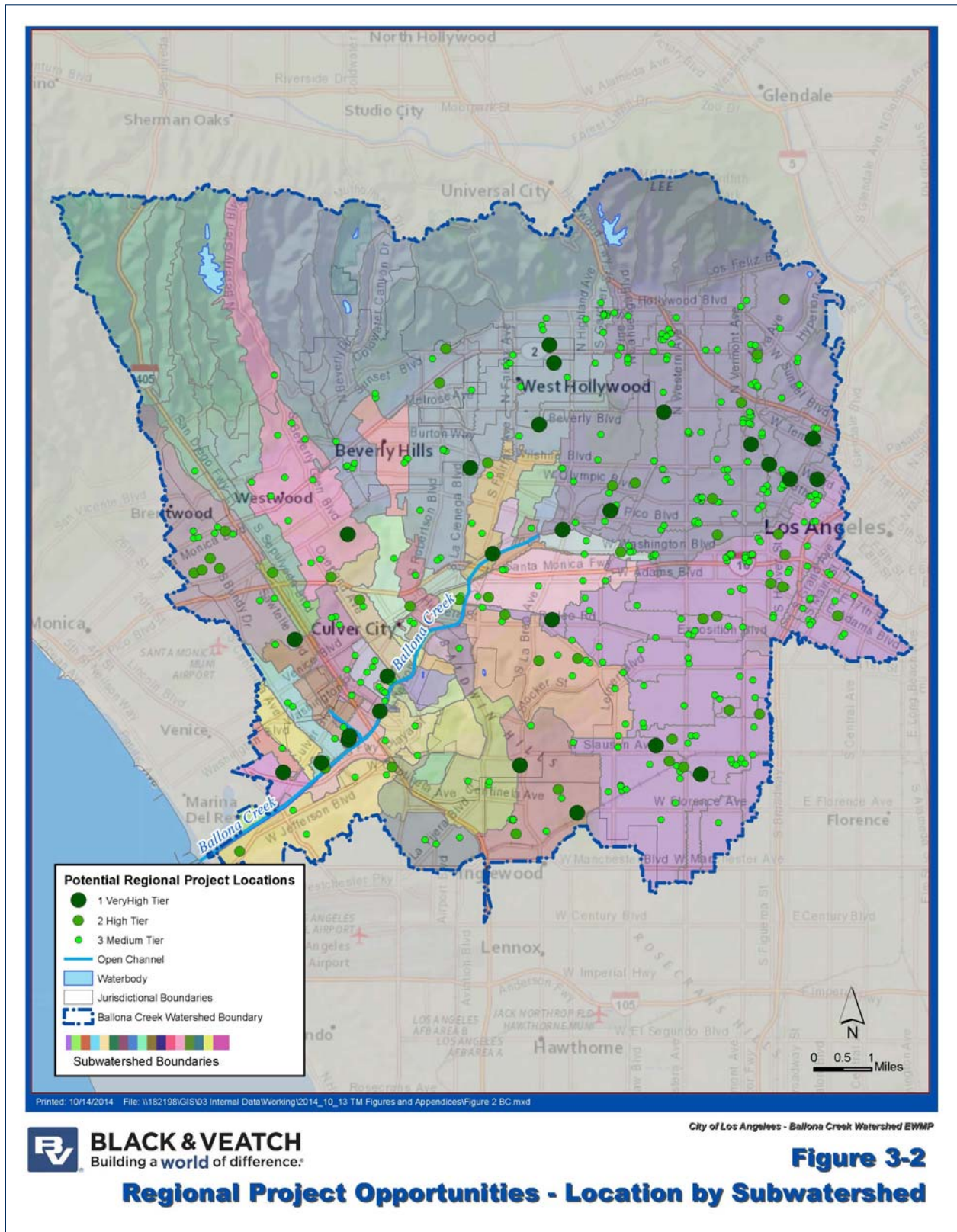


Table 3-4 Regional Project Opportunities – Very High Tier

	MEMBER AGENCY	CLUSTER ID	ACRES	DESCRIPTION
1	City of Beverly Hills	BH01	16.92	La Cienega Park 325 S LA CIENEGA BLVD
2	City of Culver City	CC01	0.46	Coombs Park
3	Inglewood	IG01	50.56	Edward Vincent Park
4	City of LA	LA01	22.78	Mar Vista Recreation Center 11430 W WOODBINE ST
5	City of LA	LA02	48.82	Rancho Cienega Park Water Quality Improvement and Beneficial Use Project (WQIBUP) 5001 RODEO RD
6	City of LA	LA03	5.46	Shatto Rec Center WQIBUP
7	City of LA	LA04	9.08	Lafayette Park WQIPUB
8	City of LA	LA05	8.95	Genesse Park WQIPUB
9	City of LA	LA06	1.68	Burns Park WQIBUP 225 N VAN NESS AVE
10	City of LA	LA07	3.61	Street median along Venice Blvd
11	City of LA	LA08	14.51	Mar Vista Gardens Housing Project
12	City of LA	LA09	32.54	MacArthur Park 655 S ALVARADO ST
13	City of LA	LA10	189.21	Cheviot Hills WQIBUP 10460 W PICO BLVD
14	City of LA	LA11	4.82	Glen Alla Park WQIPUB
15	City of LA	LA12	8.00	Culver Slauson Park
16	City of LA	LA13	4.98	City-owned parcel close to the Grove
17	City of LA	LA14	1.17	455 S UNION AVE
18	City of LA	LA15	0.52	City-owned parcel adjacent to Ballona Creek
19	City of LA	LA16	12.88	Harvard Recreation Center WQIBUP
20	City of LA	LA17	1.52	Lake Street Park and Community Center
21	City of LA	LA18	6.29	Poinsettia WQIPUB 7341 WILLOUGHBY AVE
22	City of LA	LA19	5.37	Queen Anne Recreation Center WQIBUP
23	City of LA	LA20	17.35	Van Ness Recreation Center 5421 S VAN NESS AVE
24	City of LA	LA21	3.53	Lemon Grove Recreation Center Subsurface Detention Basin
25	County of LA	LC01	14.39	Ladera Park 5905 WILSHIRE BLVD
26	City of West Hollywood	WH01	7.56	Plummer Park 5905 WILSHIRE BLVD

Figure 3-3 Regional Project Locations - Very High Tier



4 Next Steps

The results of the regional project selection process will be used to support the following next steps in the development of the EWMP:

- A subset of eight potential regional project locations will be selected from the list of Regional Projects - Very High Tier, and additional engineering feasibility will be performed, including an initial environmental study and preliminary soils infiltration assessment. A site concept will also be developed for each of the eight projects and included in the EWMP.
- The list of potential regional project locations will be used as input for several RAA model runs to allow WMG members information to make decisions, as well as to inform non-WMG members about the value of their publicly owned parcels.
 - The water quality effectiveness of individual projects in the Very High Tier, will be analyzed individually by the RAA.
 - The water quality effectiveness of the set of regional project opportunities in the High Tier of will be evaluated in bulk (not individually) by the RAA.
 - The water quality effectiveness of the set of regional project opportunities in the Medium Tier, with and without schools, will be evaluated in bulk (not individually) by the WMMS modeling system. It is anticipated these projects will not be included in the draft EWMP submitted in 2015.

5 References

LACDPW (Los Angeles County Department of Public Works). 2010a. *Los Angeles County Watershed Model Configuration and Calibration—Part I: Hydrology*. Prepared for County of Los Angeles Department of Public Works, Watershed Management Division, Los Angeles County, CA, by Tetra Tech, Pasadena, CA.

LACDPW (Los Angeles County Department of Public Works). 2010b. *Los Angeles County Watershed Model Configuration and Calibration—Part II: Water Quality*. Prepared for County of Los Angeles Department of Public Works, Watershed Management Division, Los Angeles County, CA, by Tetra Tech, Pasadena, CA.

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SCAG (Southern California Association of Governments). 2005. *Land Use Dataset*

State of California Department of Toxic Substances Control. 2014. *Envirostor Brownfield Geographic Information System (GIS)*. June 2014.

USGS (U.S. Geological Survey), 20121105, USGS Contours for Los Angeles E, California 20121105 1 x 1 degree FileGDB 10.1: USGS - National Geospatial Technical Operations Center (NGTOC), Rolla, MO and Denver, CO.

USGS (U.S. Geological Survey). 2014. *National Hydrography Dataset*. June 2014.

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LIST OF APPENDICES

**APPENDIX A – Regional Project Opportunities - Detailed
Location Maps**

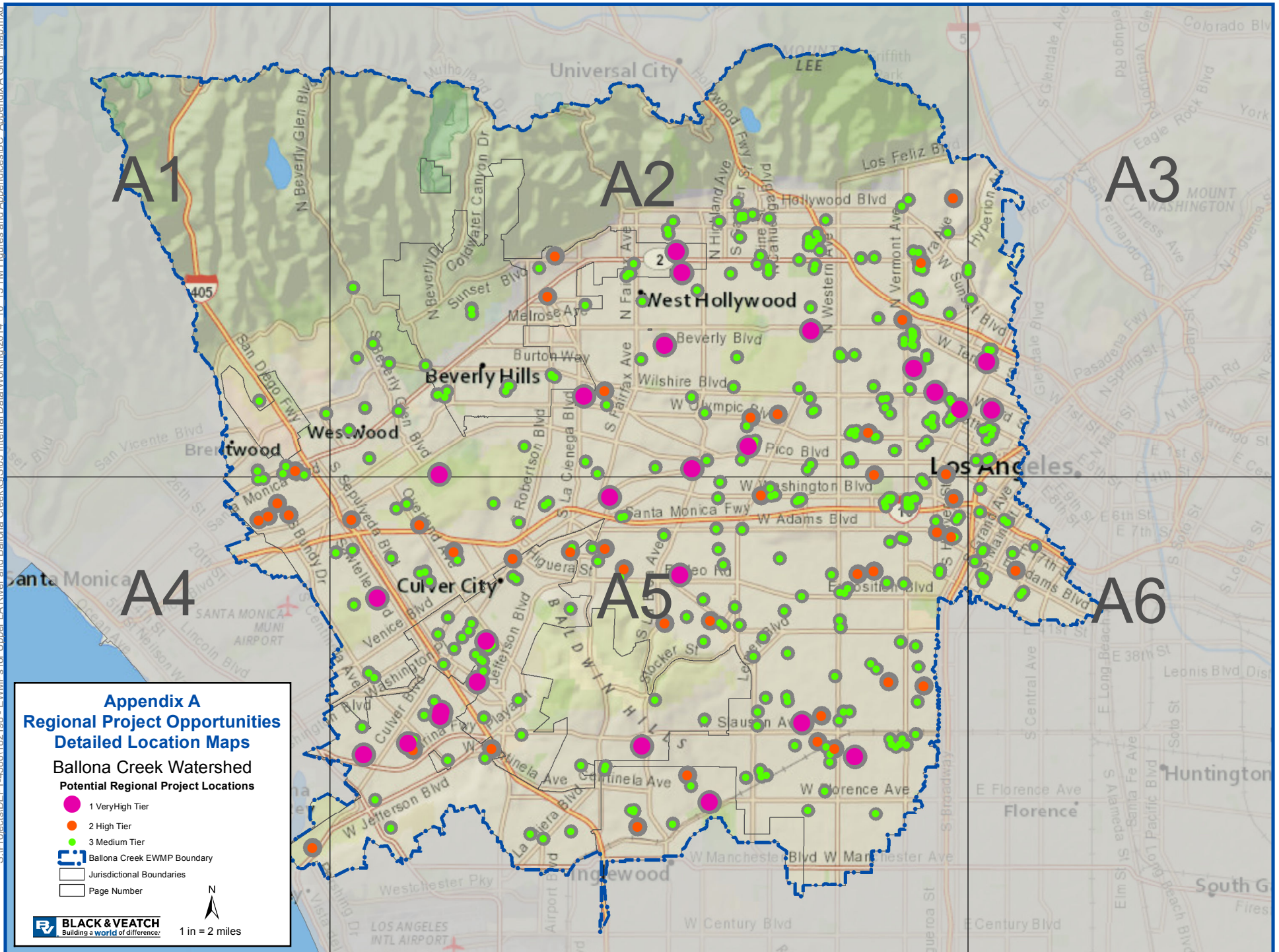
APPENDIX B – List of Parcels in the Very High Tier

APPENDIX C – List of Parcels in the High Tier

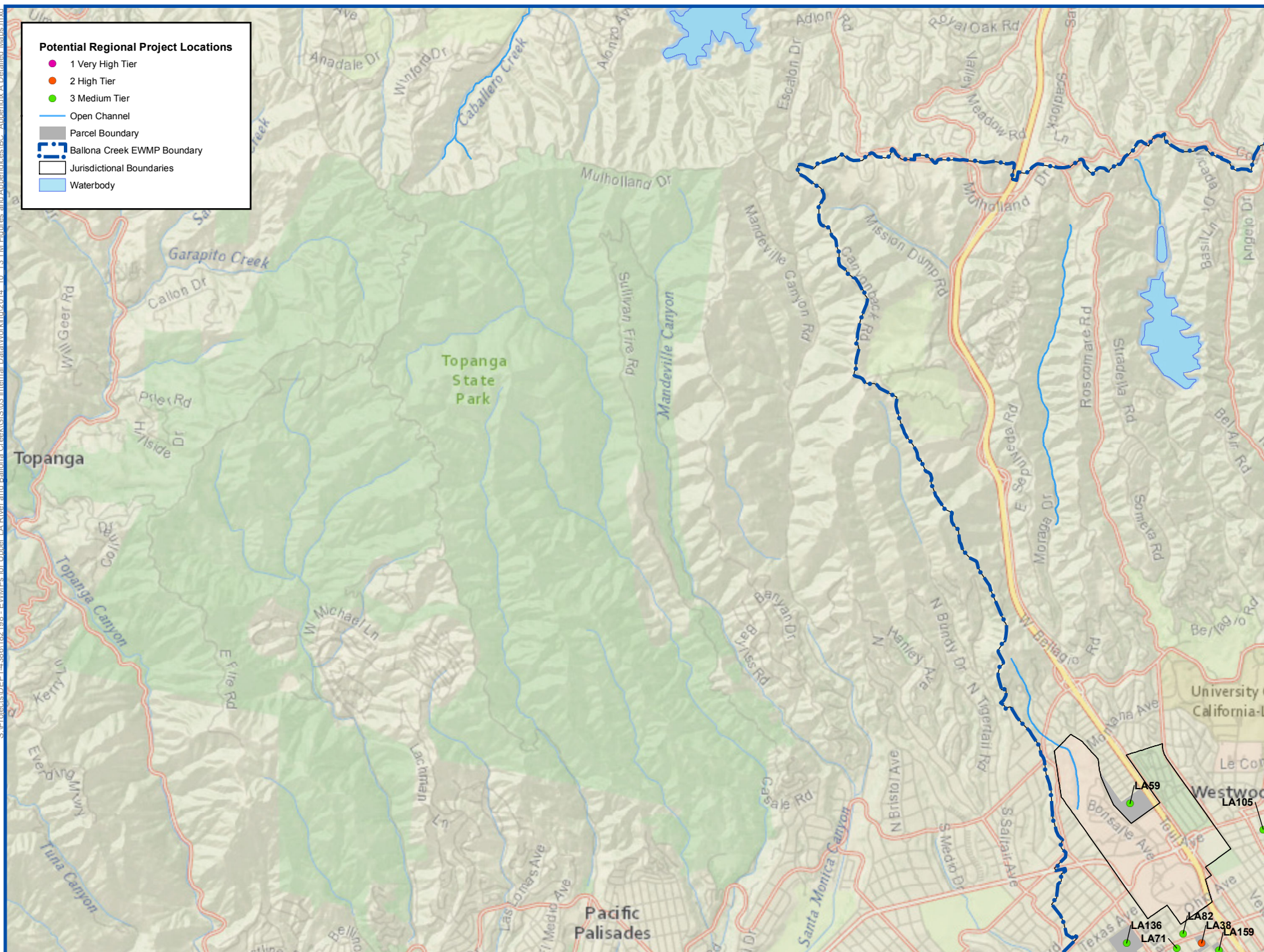
APPENDIX D – List of Parcels in the Medium Tier / Excluding School Districts

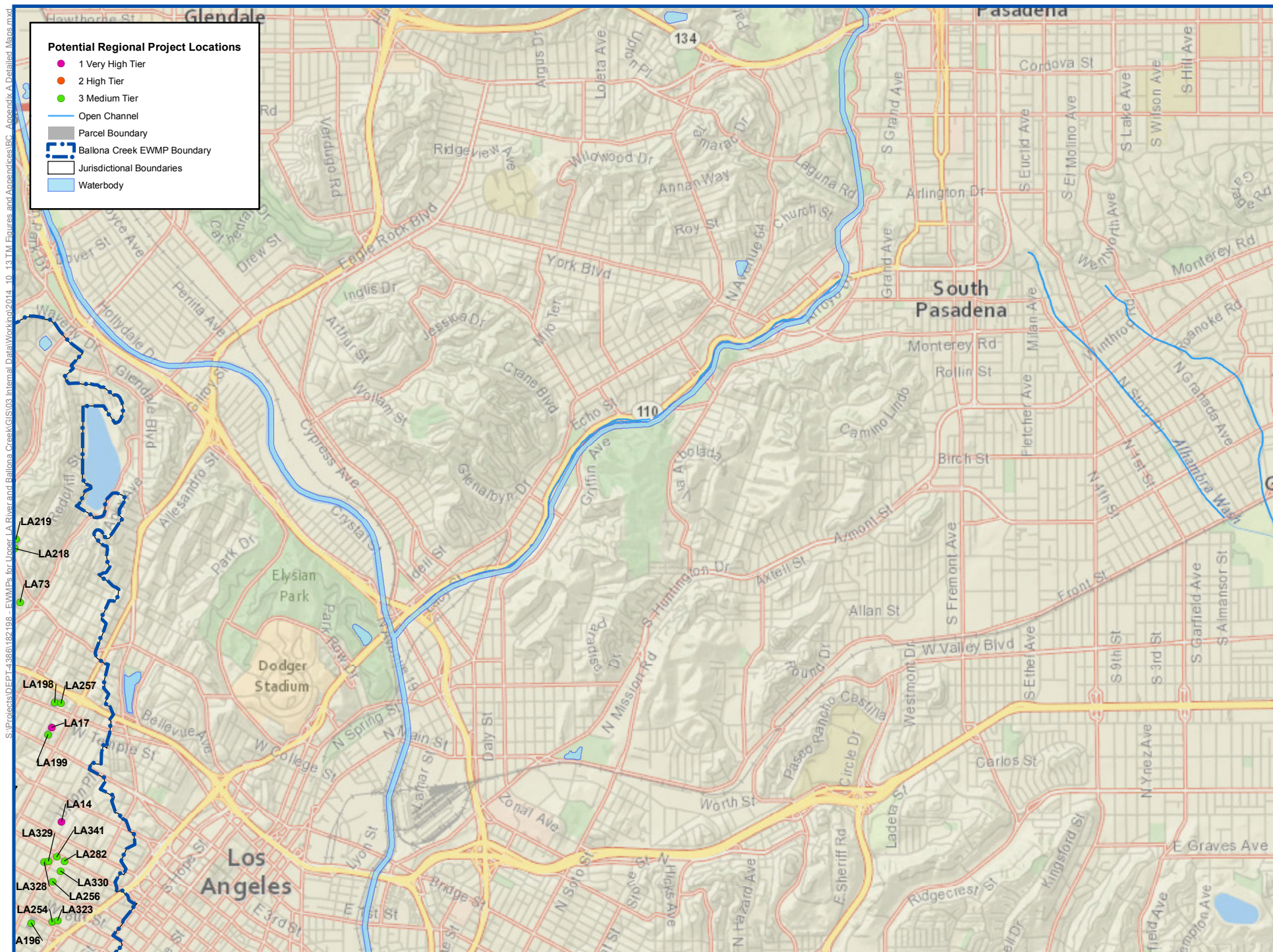
APPENDIX E – List of Parcels in the Medium Tier / School Districts Only

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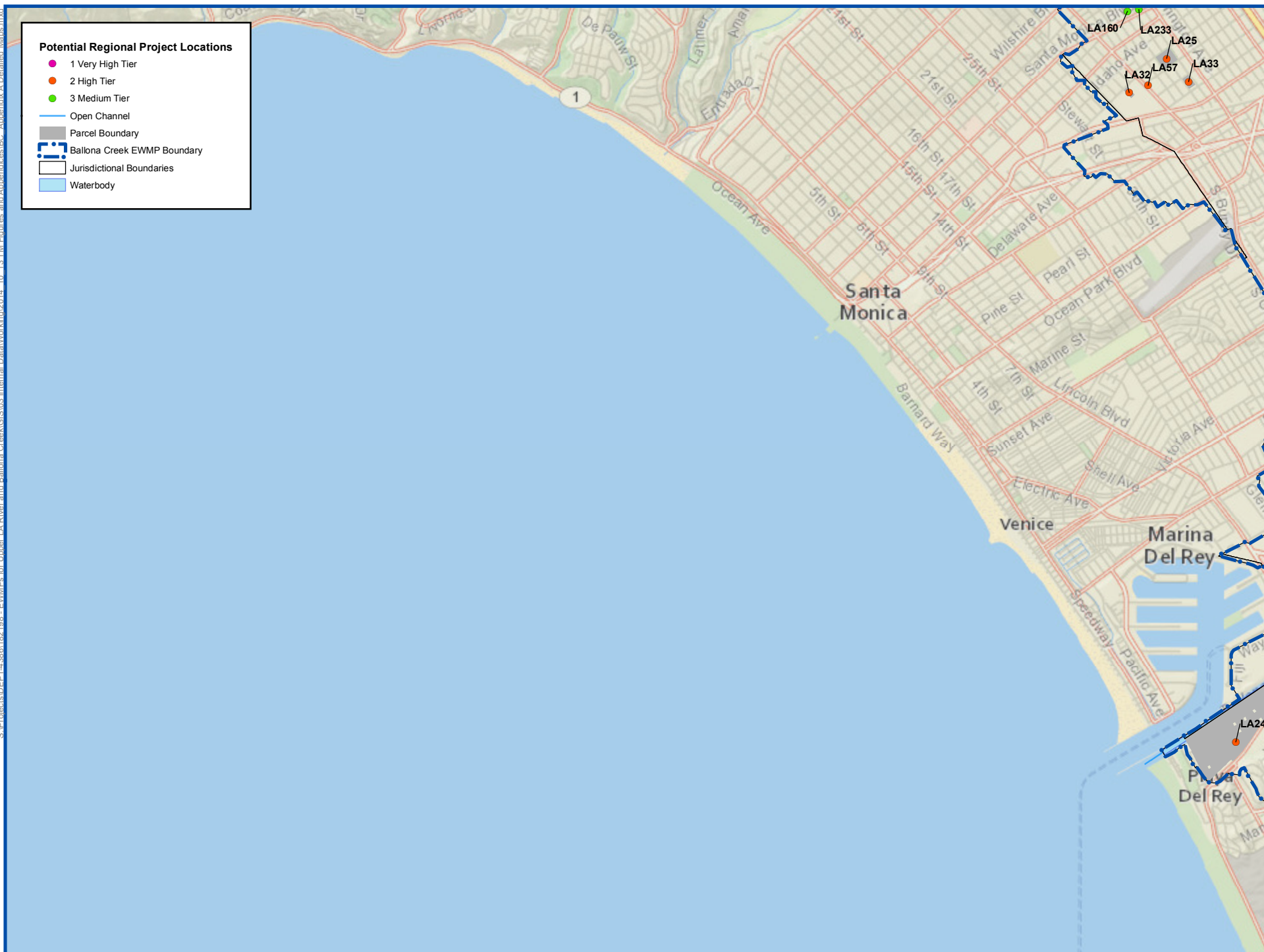


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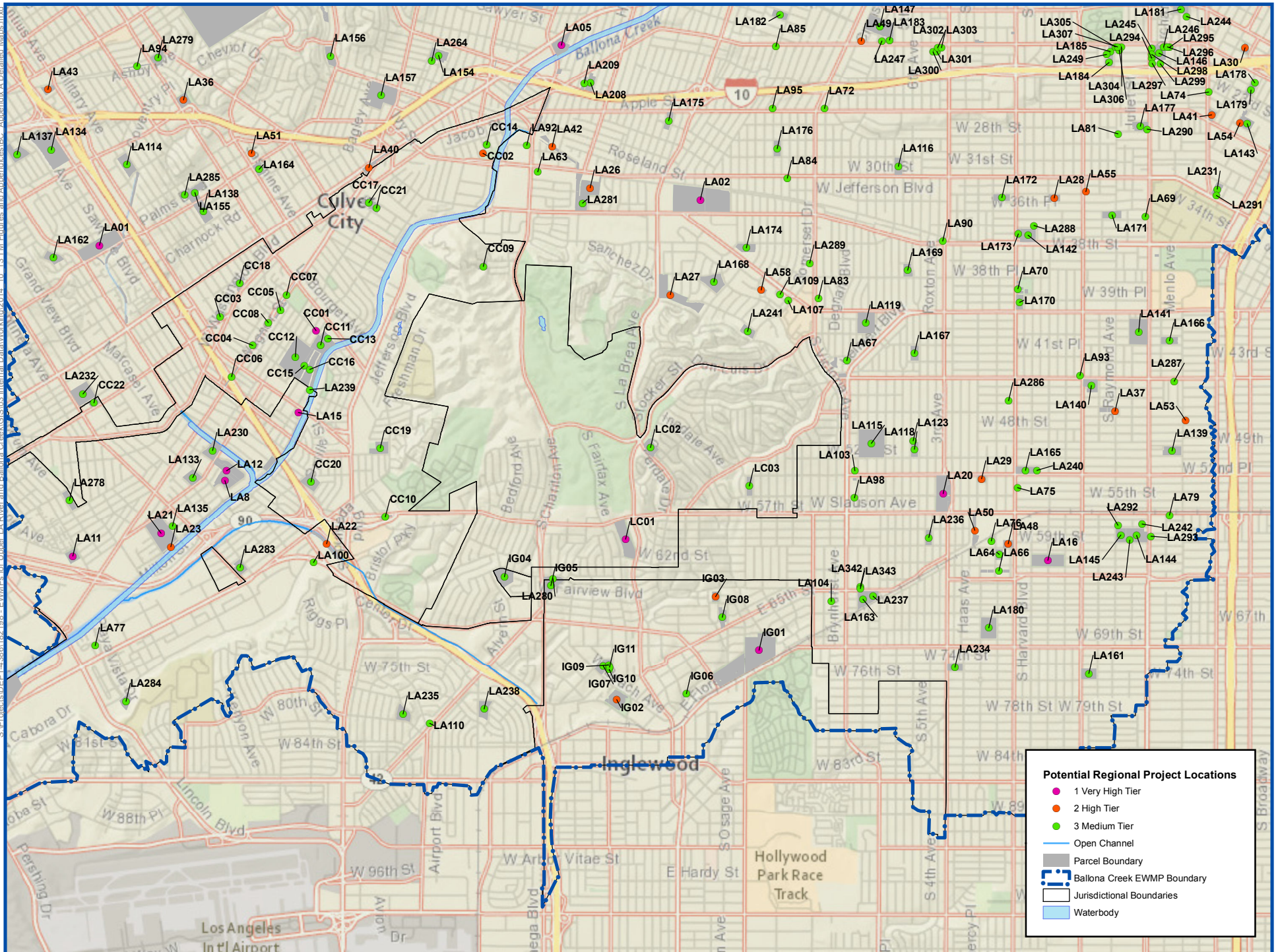


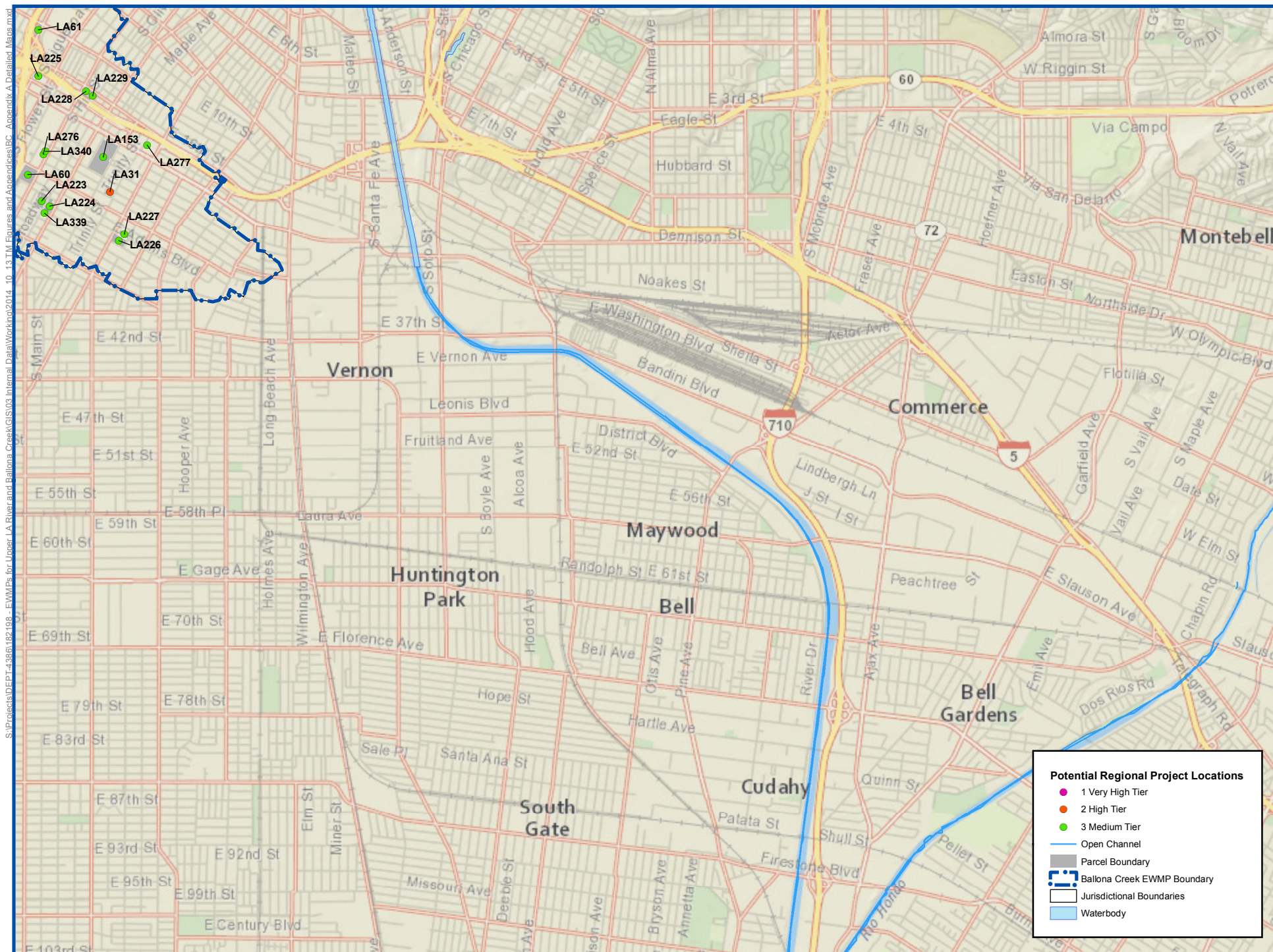


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Appendix B - List of Parcels in the Very High Tier

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Beverly Hills	BH01	4333026900	7.06	10.99	BEVERLY HILLS CITY PARKING	325 S LA CIENEGA BLVD
Beverly Hills		4333026901	0.04	10.99	BEVERLY HILLS WATER DEPT	
Beverly Hills		4333031900	9.82	10.99	BEVERLY HILLS CITY	
Culver City	CC01	4210025900	0.46	14.00	CULVER CITY	
Inglewood	IG01	4013029901	0.96	10.52	INGLEWOOD CITY	
Inglewood		4015015900	18.67	10.52	INGLEWOOD CITY	
Inglewood		4013028900	29.61	10.52	INGLEWOOD CITY	
Inglewood		4013025900	1.32	10.52	INGLEWOOD CITY	
LA County	LC01	4019019900	14.39	10.00	L A COUNTY	5905 WILSHIRE BLVD
Los Angeles	LA01	4249002900	19.73	18.66	L A CITY	11430 W WOODBINE ST
Los Angeles		4249026900	2.06	18.66	L A CO FLOOD CONTROL DIST	
Los Angeles		4249001901	0.32	18.66	L A CO FLOOD CONTROL DIST	
Los Angeles		4249025900	0.67	18.66	L A CO FLOOD CONTROL DIST	
Los Angeles	LA02	5046013900	28.97	18.59	L A CITY	5001 RODEO RD
Los Angeles		5046013905	19.85	18.59	L A UNIFIED SCHOOL DIST	
Los Angeles	LA03	5501024900	5.46	17.00	L A CITY	
Los Angeles	LA04	5077006900	8.39	16.85	L A CITY	
Los Angeles		5077006901	0.69	16.85	L A CITY	
Los Angeles	LA05	5064029908	8.19	16.83	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5064024901	0.75	16.83	L A CITY	
Los Angeles	LA06	5516007900	1.68	15.00	L A CITY	225 N VAN NESS AVE
Los Angeles	LA07	5070013906	0.89	13.75	L A CITY	
Los Angeles		5070013907	2.72	13.75	L A CITY	
Los Angeles	LA8	4218002907	14.51	12.00	L A CITY HOUSING AUTHORITY	
Los Angeles	LA9	5141003900	31.72	11.92	L A CITY	655 S ALVARADO ST
Los Angeles		5141017905	0.82	11.92	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA10	4307013909	0.88	11.05	L A CO FLOOD CONTROL DIST	
Los Angeles		4307012902	0.88	11.05	L A CO FLOOD CONTROL DIST	
Los Angeles		4307014908	1.05	11.05	L A CO FLOOD CONTROL DIST	
Los Angeles		4309002901	1.83	11.05	L A CITY	
Los Angeles		4309002902	1.03	11.05	L A CO FLOOD CONTROL DIST	
Los Angeles		4318001900	183.53	11.05	L A CITY	10460 W PICO BLVD
Los Angeles	LA11	4212007900	4.82	11.00	L A CITY	
Los Angeles	LA12	4218002908	0.62	11.00	L A CITY HOUSING AUTHORITY	
Los Angeles		4218002906	4.56	11.00	L A CITY HOUSING AUTHORITY	
Los Angeles		4217029903	2.83	11.00	L A CITY	
Los Angeles	LA13	5512004903	4.18	10.84	L A CITY	
Los Angeles		5512004907	0.80	10.84	L A CITY	
Los Angeles	LA14	5153004900	1.17	10.00	L A CITY HOUSING AUTHORITY	455 S UNION AVE
Los Angeles	LA15	4215031902	0.52	10.00	METROPOLITAN WATER DIST	
Los Angeles	LA16	6002024900	12.88	10.00	L A CITY PLAYGROUND	
Los Angeles	LA17	5157018903	1.52	10.00	L A CITY	
Los Angeles	LA18	5531020900	6.29	10.00	L A CITY	7341 WILLOUGHBY AVE
Los Angeles	LA19	5082011903	4.82	9.90	L A CITY	
Los Angeles		5082012900	0.55	9.90	L A CITY	
Los Angeles	LA20	5005006903	0.01	9.63	L A CITY	
Los Angeles		5005006907	0.10	9.63	L A CITY	
Los Angeles		5005007904	0.10	9.63	LACMTA	
Los Angeles		5005007911	0.26	9.63	LACMTA	5421 S VAN NESS AVE
Los Angeles		5005005900	8.05	9.63	LACMTA	
Los Angeles		5005006909	0.10	9.63	L A CITY	
Los Angeles		5005007905	0.10	9.63	LACMTA	
Los Angeles		5005006910	0.10	9.63	L A CITY	
Los Angeles		5005006911	0.10	9.63	L A CITY	
Los Angeles		5005007909	0.09	9.63	LACMTA	
Los Angeles		5005007907	0.10	9.63	LACMTA	
Los Angeles		5005006912	0.39	9.63	L A CITY	
Los Angeles		5005005901	6.93	9.63	L A CITY	
Los Angeles		5005006908	0.10	9.63	L A CITY	

Appendix B - List of Parcels in the Very High Tier

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles		5005007913	0.10	9.63	LACMTA	
Los Angeles		5005007912	0.10	9.63	LACMTA	
Los Angeles		5005007914	0.10	9.63	LACMTA	
Los Angeles		5005007915	0.10	9.63	LACMTA	
Los Angeles		5005007916	0.10	9.63	LACMTA	
Los Angeles		5005007906	0.10	9.63	LACMTA	
Los Angeles		5005007910	0.06	9.63	LACMTA	
Los Angeles		5005007908	0.10	9.63	LACMTA	
Los Angeles	LA21	5535032900	1.80	8.91	L A CITY	
Los Angeles		5535032907	0.17	8.91	L A CITY PARK	
Los Angeles		5535032905	0.10	8.91	L A CITY	
Los Angeles		5535032904	0.14	8.91	L A CITY	
Los Angeles		5535032906	0.17	8.91	L A CITY	
Los Angeles		5535032903	0.17	8.91	L A CITY DEPT OF WATER & POWER	
Los Angeles		5535033900	0.66	8.91	L A CITY	
Los Angeles		5535032901	0.17	8.91	L A CITY PARK	
Los Angeles		5535032902	0.17	8.91	L A CITY PARK	
West Hollywood	WH01	5531003900	7.16	9.84	WEST HOLLYWOOD CITY	
West Hollywood		5531003901	0.39	9.84	WEST HOLLYWOOD CITY	5905 WILSHIRE BLVD

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Appendix C - List of Parcels in the High Tier

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Culver City	CC02	4205015902	0.36	12.00	CULVER CITY S BY S	
Inglewood	IG02	4017032902	5.25	9.49	INGLEWOOD CITY	
Inglewood		4017032908	0.42	9.49	INGLEWOOD CITY	
Inglewood		4017031905	3.35	9.49	INGLEWOOD CITY	
Inglewood	IG03	4014007900	0.66	8.71	INGLEWOOD CITY	
Inglewood		4014007901	1.64	8.71	INGLEWOOD CITY	897 S WINDSOR BLVD
Los Angeles	LA22	4220015900	4.11	14.00	L A CO FLOOD CONTROL DIST	
Los Angeles	LA23	4221024908	0.19	11.80	BALDWIN HILLS REGIONAL	
Los Angeles		4221024907	0.38	11.80	BALDWIN HILLS REGIONAL	
Los Angeles		4221024900	20.61	11.80	L A UNIFIED SCHOOL DIST	4908 WESTLAWN AVE
Los Angeles		4221024909	0.20	11.80	BALDWIN HILLS REGIONAL	
Los Angeles	LA24	4211017900	142.70	11.00	STATE OF CALIFORNIA	
Los Angeles	LA25	4262023900	8.66	11.00	L A CITY	11801 MISSOURI AVE
Los Angeles	LA26	5047014900	10.26	10.33	L A CITY PARK	
Los Angeles		5047014902	5.02	10.33	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA27	5028004902	17.63	10.00	L A CITY	
Los Angeles	LA28	5041011902	2.81	10.00	L A CITY	3570 DENKER AVE
Los Angeles	LA29	5005019900	1.89	10.00	L A CITY PARK	
Los Angeles	LA30	5135025900	1.89	10.00	L A CITY	
Los Angeles	LA31	5127012904	2.06	10.00	L A CITY	
Los Angeles	LA32	4259018901	1.95	10.00	L A CITY	12270 NEBRASKA AVE
Los Angeles	LA33	4262032901	3.21	10.00	L A CITY	
Los Angeles	LA34	5520018901	1.95	10.00	L A CITY	411 N VERMONT AVE
Los Angeles	LA35	5591022900	2.16	10.00	L A CITY	
Los Angeles		5591022901	4.23	10.00	L A CITY	4155 RUSSELL AVE
Los Angeles	LA36	4255009901	4.69	10.00	L A CITY	
Los Angeles	LA37	5017013901	0.60	9.84	L A CITY	
Los Angeles		5017013904	1.28	9.84	L A CITY	
Los Angeles		5017020900	1.79	9.84	L A CITY	
Los Angeles	LA38	4261011911	0.59	9.78	L A CITY	
Los Angeles		4261011912	0.64	9.78	L A CITY	
Los Angeles		4261010908	4.32	9.78	L A CITY	
Los Angeles	LA39	5078001920	0.80	9.74	L A CITY	
Los Angeles		5080032903	2.24	9.74	L A CITY	
Los Angeles	LA40	4206030902	0.84	9.74	L A CITY	
Los Angeles		4206034906	2.35	9.74	L A CITY	
Los Angeles	LA41	5124009902	1.79	9.72	L A CITY	
Los Angeles		5124009903	0.69	9.72	L A CITY	
Los Angeles	LA42	5048013901	1.21	9.70	L A CITY	
Los Angeles		5048012900	0.98	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5048017901	0.63	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5065015906	1.21	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5048008901	0.56	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5048014901	1.30	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles		5048017900	1.27	9.70	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA43	4256011902	2.59	9.69	L A CITY	11214 EXPOSITION BLVD
Los Angeles		4256011901	0.48	9.69	L A CITY	2513 S SEPULVEDA BLVD
Los Angeles	LA44	5073018900	0.47	9.53	COMMUNITY REDEVELOPMENT AGENCY	2375 W WASHINGTON BLVD
Los Angeles		5073013900	0.28	9.53	L A CITY	1819 S WESTERN AVE
Los Angeles		5073018901	0.27	9.53	COMMUNITY REDEVELOPMENT AGENCY	2341 W WASHINGTON BLVD
Los Angeles		5075014900	3.27	9.53	L A CITY PLAYGROUND	
Los Angeles	LA45	5088010900	1.03	9.30	L A CITY	
Los Angeles		5088005900	0.78	9.30	L A CITY	
Los Angeles		5088011900	0.75	9.30	L A CITY	
Los Angeles		5088020900	0.83	9.30	L A CITY	
Los Angeles	LA46	5090026900	1.60	9.00	L A CITY	897 S WINDSOR BLVD
Los Angeles	LA47	5539002900	2.29	9.00	L A CITY	4550 SANTA MONICA BLVD
Los Angeles	LA48	6001014900	2.80	9.00	L A CITY	5975 S WESTERN AVE
Los Angeles	LA49	5072013900	0.72	9.00	L A CITY	4117 W WASHINGTON BLVD
Los Angeles	LA50	6001001900	4.55	9.00	L A CITY	
Los Angeles	LA51	4314016901	0.52	9.00	L A CITY	

Appendix C - List of Parcels in the High Tier

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA52	5135004900	0.91	9.00	L A CITY	
Los Angeles	LA53	5018024900	0.96	9.00	L A CITY	
Los Angeles	LA54	5124023909	0.90	9.00	L A CITY	
Los Angeles	LA55	5040004900	0.68	9.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA56	5090012900	2.51	9.00	L A CITY PARK	
Los Angeles	LA57	4259020900	0.75	9.00	L A CITY	
Los Angeles	LA58	5032004908	1.09	9.00		
West Hollywood	WH02	5559003901	0.29	6.68	WEST HOLLYWOOD CITY	4117 W WASHINGTON BLVD
West Hollywood		5559003900	0.62	6.68	WEST HOLLYWOOD CITY	
West Hollywood	WH03	4336008909	0.56	8.82	WEST HOLLYWOOD CITY	7341 WILLOUGHBY AVE
West Hollywood		4336008910	5.56	8.82	WEST HOLLYWOOD CITY	

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Appendix D - List of Parcels in the Medium Tier / Excluding School Districts

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Culver City	CC03	4213006901	1.54	10.00	CULVER CITY	655 S ALVARADO ST
Culver City	CC04	4213026902	1.03	9.51	CULVER CITY	
Culver City		4213026903	1.10	9.51	CULVER CITY	4117 W WASHINGTON BLVD
Culver City	CC05	4210021900	1.56	9.00	CULVER CITY	
Culver City	CC06	4217011903	0.27	8.58	REDEVELOPMENT AGENCY OF	
Culver City		4213026900	1.00	8.58	CULVER CITY	
Culver City	CC07	4208032900	0.70	8.00	CULVER CITY	
Culver City	CC08	4208027900	0.49	7.00	CULVER CITY	
Culver City	CC09	4204013900	1.80	7.00	CULVER CITY	4861 VENICE BLVD
Culver City	CC10	4134020903	0.98	6.00	SUCCESSOR AGENCY TO THE CULVER	
Los Angeles	LA59	4365009900	30.64	11.00	U S GOVT	1811 Hoover St
Los Angeles	LA60	5122014907	7.20	10.83	L A COUNTY	318 W ADAMS BLVD
Los Angeles		5122017908	0.65	10.83	L A COUNTY	2829 S GRAND AVE
Los Angeles	LA61	5134007921	1.19	10.00	L A CITY	1332 BOND ST
Los Angeles	LA62	4359014902	8.52	10.00	L A CITY	
Los Angeles	LA63	5047018924	0.53	9.00	L A CITY	
Los Angeles	LA64	6001017901	2.64	9.00	L A CITY	6000 S ST ANDREWS PL
Los Angeles	LA65	5547030900	1.37	9.00	L A CITY	
Los Angeles	LA66	6001016900	1.45	9.00	L A CITY DEPT OF WATER AND POWER	6219 S MANHATTAN PL
Los Angeles		6001019900	1.41	9.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA67	5024018901	0.26	8.76	L A CITY	
Los Angeles		5024018900	1.01	8.76	L A CITY	
Los Angeles		5024019900	1.14	8.76	L A CITY	
Los Angeles		5024018902	1.38	8.76	L A CITY	
Los Angeles		5024019904	0.53	8.76	LOS ANGELES CITY	4300 DEGNAN BLVD
Los Angeles	LA68	5533009900	0.79	8.74	L A CITY	6401 SANTA MONICA BLVD
Los Angeles		5533009901	2.22	8.74	L A CITY	
Los Angeles	LA69	5037028909	0.40	8.66	L A CITY	3789 MENLO AVE
Los Angeles		5040030905	0.78	8.66	COMMUNITY REDEVELOPMENT AGENCY	
Los Angeles	LA70	5036026912	0.32	8.29	L A CITY	3906 S WESTERN AVE
Los Angeles		5036026901	0.30	8.29	L A CITY	3941 S HOBART BLVD
Los Angeles		5036025910	0.48	8.29	L A CITY	
Los Angeles		5036026914	0.32	8.29	L A CITY	3924 S WESTERN AVE
Los Angeles		5036026900	0.30	8.29	L A CITY	3929 S HOBART BLVD
Los Angeles		5036026902	0.81	8.29	L A CITY	Western and 39th St
Los Angeles		5042008902	0.25	8.29	L A CITY	3794 2ND AVE
Los Angeles						
Los Angeles	LA71	4261013900	0.28	8.00	L A CITY	1615 COLBY AVE
Los Angeles	LA72	5059003901	0.28	8.00	COMMUNITY REDEVELOPMENT AGENCY	4337 W ADAMS BLVD
Los Angeles	LA73	5426017900	0.32	8.00	L A CITY PARK	
Los Angeles	LA74	5124001900	0.26	8.00	L A CITY	2301 S UNION AVE
Los Angeles	LA75	5003021900	0.26	8.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA76	6001013906	0.85	8.00	L A CITY	5975 S ST ANDREWS PL
Los Angeles	LA77	4211022900	0.96	8.00	L A CITY	5451 S PLAYA VISTA DR
Los Angeles	LA78	4359018900	0.52	8.00	L A CITY	
Los Angeles	LA79	6004002903	0.55	8.00	L A CITY	840 W SLAUSON AVE
Los Angeles	LA80	4319003900	0.87	8.00	L A CITY	
Los Angeles	LA81	5054031901	0.32	8.00	L A CITY	2700 S BUDLONG AVE
Los Angeles	LA82	4261003900	0.34	8.00	L A CITY	1526 BUTLER AVE
Los Angeles	LA83	5033004901	0.74	8.00	L A CITY	
Los Angeles	LA84	5046004902	0.31	8.00	COMMUNITY REDEVELOPMENT	3900 W JEFFERSON BLVD
Los Angeles	LA85	5061014900	0.27	8.00	LOS ANGELES CITY	4600 W WASHINGTON BLVD
Los Angeles	LA86	5502018902	0.36	8.00	L A CITY DEPT OF WATER AND POWER	3569 W 6TH ST
Los Angeles	LA87	5083032900	0.47	8.00	L A CITY	
Los Angeles	LA88	5504008900	0.52	8.00	L A CITY	600 LORRAINE BLVD
Los Angeles		5504008901	0.52	8.00	L A CITY	605 S IRVING BLVD
Los Angeles	LA89	5533017900	0.67	8.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA90	5042008904	0.41	8.00	L A CITY	3783 ARLINGTON AVE
Los Angeles	LA91	5536005900	0.34	8.00	L A CITY	5707 LEXINGTON AVE
Los Angeles	LA92	4205035900	0.28	8.00	L A CITY S BY S	
Los Angeles	LA93	5021017902	0.30	8.00	L A CITY	
Los Angeles		4255019900	0.66	8.00	L A CITY	

Appendix D - List of Parcels in the Medium Tier / Excluding School Districts

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA94	4255020900	0.70	8.00	L A CITY	
Los Angeles		4255021900	0.59	8.00	L A CITY	
Los Angeles	LA95	5050006905	0.28	7.56	L A CITY	
Los Angeles		5050006909	0.22	7.56	L A CITY	
Los Angeles	LA96	5546009906	0.27	7.00	COMMUNITY REDEVELOPMENT AGENCY	1601 VINE ST
Los Angeles	LA97	5550025902	0.40	7.00	L A CITY	
Los Angeles	LA98	5006009902	0.37	7.00	L A CITY	
Los Angeles	LA99	5542028900	0.28	7.00	L A CITY	1171 N MADISON AVE
Los Angeles	LA100	4211011900	0.29	7.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA101	5590020900	0.31	7.00	L A CITY	
Los Angeles	LA102	5547016908	0.25	7.00	L A CITY	1633 WILCOX AVE
Los Angeles		5547016907	0.25	7.00	L A CITY	1637 WILCOX AVE
Los Angeles	LA103	5006007900	0.34	7.00	L A CITY	
Los Angeles		5006008900	0.34	7.00	L A CITY	5407 11TH AVE
Los Angeles	LA104	4006019900	0.26	7.00	L A CITY	6537 S VICTORIA AVE
Los Angeles		4006019901	0.26	7.00		
Los Angeles	LA105	4325005932	0.29	7.00	LOS ANGELES CITY	1246 GLENDON AVE
Los Angeles	LA106	5533014900	0.28	7.00	L A CITY	1037 COLE AVE
Los Angeles	LA107	5032003901	0.36	7.00	COMMUNITY REDEVELOPMENT AGENCY	4013 MARLTON AVE
Los Angeles		5032003900	0.44	7.00	COMMUNITY REDEVELOPMENT AGENCY	3700 W MARTIN LUTHER KING JR BLVD
Los Angeles	LA108	5547003908	0.31	7.00	L A CITY	1805 N CHEROKEE AVE
Los Angeles		5547003907	0.31	7.00	L A CITY	6671 YUCCA ST
Los Angeles		5547009900	0.35	7.00	L A CITY	1746 N LAS PALMAS AVE
Los Angeles	LA109	5032003902	0.39	7.00	COMMUNITY REDEVELOPMENT AGENCY	3750 W MARTIN LUTHER KING JR BLVD
Los Angeles	LA110	4105016900	0.74	7.00	L A CITY DEPT OF WATER AND POWER	
Los Angeles	LA111	5089003901	0.31	7.00	L A CITY	
Los Angeles	LA112	5550025903	0.29	7.00	L A CITY	
Los Angeles	LA113	4358003900	0.61	6.00	L A CITY	

Appendix E - List of Parcels in the Medium Tier /School Districts Only

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Beverly Hills	BH02	4359019900	6.36	12.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH03	4319001902	5.34	11.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH04	4319001900	18.90	11.00	BEVERLY HILLS UNIFIED	241 S MORENO DR
Beverly Hills	BH05	4331012901	2.65	10.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH06	4331012900	2.65	10.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH07	4333017904	4.48	10.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH08	4319001901	0.80	9.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH09	4328005900	0.93	9.00	BEVERLY HILLS UNIFIED SCHOOL	5301 WILSHIRE BLVD
Beverly Hills	BH10	4331009900	0.56	9.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH11	4333017906	0.31	8.00	BEVERLY HILLS UNIFIED	
Beverly Hills	BH12	4333017905	0.31	8.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH13	4341029900	4.29	8.00	BEVERLY HILLS UNIFIED SCHOOL	
Beverly Hills	BH14	4341029901	0.82	7.00	BEVERLY HILLS UNIFIED SCHOOL	
Culver City	CC11	4210016900	7.86	15.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC12	4210026903	23.70	14.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC13	4210017900	3.20	14.00	CULVER CITY UNIFIED SCHOOL DIST	1945 S HILL ST
Culver City	CC14	4205012903	1.86	13.00	CULVER CITY UNIFIED SCHOOL DIST	1413 W CONNECTICUT ST
Culver City	CC15	4210026902	4.58	13.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC16	4210015902	11.98	12.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC17	4206027900	3.45	10.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC18	4208023902	3.38	10.00	CULVER CITY UNIFIED SCHOOL DIST	5301 WILSHIRE BLVD
Culver City	CC19	4203011902	6.62	10.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC20	4216013900	6.97	10.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC21	4206026906	1.94	9.00	CULVER CITY UNIFIED SCHOOL DIST	
Culver City	CC22	4235020901	2.11	9.00	CULVER CITY UNIFIED SCHOOL DIST	12201 WASHINGTON PL
Inglewood	IG04	4102015900	9.29	10.00	INGLEWOOD UNIFIED SCHOOL DIST	
Inglewood	IG05	4001014901	6.27	10.00	INGLEWOOD UNIFIED SCHOOL DIST	
Inglewood	IG06	4015013901	1.12	9.00	INGLEWOOD UNIFIED SCHOOL DIST	4861 VENICE BLVD
Inglewood	IG07	4017026900	4.47	9.00	INGLEWOOD UNIFIED SCHOOL DIST	1423 W 012 ST
Inglewood	IG08	4014017900	4.61	9.00	INGLEWOOD UNIFIED SCHOOL DIST	
Inglewood	IG09	4017026902	0.56	8.00	INGLEWOOD UNIFIED SCHOOL DIST	1201 S FIGUEROA ST
Inglewood	IG10	4017026901	0.46	7.00	INGLEWOOD UNIFIED SCHOOL DIST	
Inglewood	IG11	4017026903	0.36	7.00	INGLEWOOD UNIFIED SCHOOL DIST	
LA County	LC02	5010003900	5.36	10.00	L A UNIFIED SCHOOL DIST	
LA County	LC03	5007011900	3.71	9.00	L A UNIFIED SCHOOL DIST	6401 SANTA MONICA BLVD
Los Angeles	LA114	4251010902	7.75	19.00	L A UNIFIED SCHOOL DIST	11020 CLOVER AVE
Los Angeles	LA115	5014001922	25.55	18.00	L A UNIFIED SCHOOL DIST	5010 11TH AVE
Los Angeles	LA116	5051038911	4.66	18.00	L A UNIFIED SCHOOL DIST	3109 6TH AVE
Los Angeles	LA117	5509018902	4.48	18.00	L A UNIFIED SCHOOL DIST	408 S FAIRFAX AVE
Los Angeles	LA119	5014024900	3.69	17.00	L A UNIFIED SCHOOL DIST	2611 W 52ND ST
Los Angeles	LA120	5024029901	12.56	17.00	L A UNIFIED SCHOOL DIST	4120 11TH AVE
Los Angeles	LA121	5501008908	9.31	17.00	L A UNIFIED SCHOOL DIST	152 N VERMONT AVE
Los Angeles	LA122	5545017900	5.53	17.00	L A UNIFIED SCHOOL DIST	1316 N BRONSON AVE
Los Angeles	LA123	5545017907	2.30	16.00	L A UNIFIED SCHOOL DIST	1316 N BRONSON AVE
Los Angeles	LA124	5014024901	0.28	15.00	L A UNIFIED SCHOOL DIST	2611 W 52ND ST
Los Angeles	LA125	5501010900	0.66	15.00	L A UNIFIED SCHOOL DIST	225 N MADISON AVE
Los Angeles	LA126	5501010909	0.58	15.00	L A UNIFIED SCHOOL DISTRICT	206 N JUANITA AVE
Los Angeles	LA127	5501020900	2.14	15.00	L A UNIFIED SCHOOL DIST	215 S COMMONWEALTH AVE
Los Angeles	LA128	5545017902	0.69	15.00	L A UNIFIED SCHOOL DIST	1316 N BRONSON AVE
Los Angeles	LA129	5501017902	0.71	14.00	L A UNIFIED SCHOOL DIST	3277 W 2ND ST
Los Angeles	LA130	5501010904	0.27	14.00	L A UNIFIED SCHOOL DISTRICT	218 N JUANITA AVE
Los Angeles	LA131	5069031902	4.10	14.00	L A UNIFIED SCHOOL DIST	5360 SATURN ST
Los Angeles	LA132	5545017904	0.34	14.00	L A UNIFIED SCHOOL DIST	1316 N BRONSON AVE
Los Angeles	LA133	5070013904	1.83	13.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA134	4221008900	6.16	13.00	L A UNIFIED SCHOOL DIST	4711 INGLEWOOD BLVD
Los Angeles	LA135	4258016900	25.03	12.00	L A UNIFIED SCHOOL DIST	11330 GRAHAM PL
Los Angeles	LA136	4221006900	0.85	12.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA138	4263022901	24.28	11.00	L A UNIFIED SCHOOL DIST	11800 TEXAS AVE
Los Angeles	LA139	4258005900	8.06	11.00	L A UNIFIED SCHOOL DIST	11562 RICHLAND AVE
Los Angeles	LA140	4252023900	8.04	11.00	L A UNIFIED SCHOOL DIST	10860 WOODBINE ST
Los Angeles	LA141	5001002908	5.77	11.00	L A UNIFIED SCHOOL DIST	816 W 51ST ST
Los Angeles	LA142	5017001905	6.10	11.00	L A UNIFIED SCHOOL DIST	4505 S RAYMOND AVE
Los Angeles	LA143	5020029902	16.39	11.00	L A UNIFIED SCHOOL DIST	4131 S VERMONT AVE
Los Angeles	LA144	5041034900	7.38	11.00	L A UNIFIED SCHOOL DIST	3751 S HARVARD BLVD

Appendix E - List of Parcels in the Medium Tier /School Districts Only

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA145	5124023911	5.10	11.00	L A UNIFIED SCHOOL DISTRICT	
Los Angeles	LA146	6003013908	9.68	11.00	L A UNIFIED SCHOOL DIST	5940 S BUDLONG AVE
Los Angeles	LA147	6003013906	5.01	11.00	L A UNIFIED SCHOOL DIST	5940 S BUDLONG AVE
Los Angeles	LA148	5056024901	5.79	11.00	L A UNIFIED SCHOOL DISTRICT	1550 W WASHINGTON BLVD
Los Angeles	LA149	5072012917	14.83	11.00	L A UNIFIED SCHOOL DIST	1717 7TH AVE
Los Angeles	LA150	5073001900	7.77	11.00	L A UNIFIED SCHOOL DIST	1512 ARLINGTON AVE
Los Angeles	LA151	5078024910	6.11	11.00	L A UNIFIED SCHOOL DIST	1157 S BERENDO ST
Los Angeles	LA152	5094006904	17.22	11.00	LA UNIFIED SCHOOL DISTRICT	
Los Angeles	LA153	5545016900	7.41	11.00	L A UNIFIED SCHOOL DIST	5746 W SUNSET BLVD
Los Angeles	LA154	5430029901	10.82	11.00	L A UNIFIED SCHOOL DIST	4201 FOUNTAIN AVE
Los Angeles	LA155	5127029900	18.68	11.00	L A UNIFIED SCHOOL DIST	1915 MAPLE AVE
Los Angeles	LA156	4301018900	6.70	11.00	L A UNIFIED SCHOOL DIST	2450 S SHENANDOAH ST
Los Angeles	LA157	4254023900	6.80	11.00	L A UNIFIED SCHOOL DIST	10860 WOODBINE ST
Los Angeles	LA158	4308019900	5.10	11.00	L A UNIFIED SCHOOL DIST	9755 CATTARAUGUS AVE
Los Angeles	LA159	4311031901	20.74	11.00	L A UNIFIED SCHOOL DIST	2955 S ROBERTSON BLVD
Los Angeles	LA160	5066013900	14.08	11.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA161	4261018900	3.93	10.00	L A UNIFIED SCHOOL DIST	1730 CORINTH AVE
Los Angeles	LA162	4263021904	1.01	10.00	L A UNIFIED SCHOOL DIST	11800 TEXAS AVE
Los Angeles	LA163	6019003905	5.67	10.00	L A UNIFIED SCHOOL DIST	7511 RAYMOND AVE
Los Angeles	LA164	4249011900	5.27	10.00	L A UNIFIED SCHOOL DIST	3330 GRANVILLE AVE
Los Angeles	LA165	4006014900	5.86	10.00	L A UNIFIED SCHOOL DIST	6620 11TH AVE
Los Angeles	LA166	4314014900	3.53	10.00	L A UNIFIED SCHOOL DIST	3520 MOTOR AVE
Los Angeles	LA167	5003013901	4.68	10.00	L A UNIFIED SCHOOL DIST	1724 W 53RD ST
Los Angeles	LA168	5019004903	4.04	10.00	L A UNIFIED SCHOOL DIST	4156 MENLO AVE
Los Angeles	LA169	5023027900	4.21	10.00	L A UNIFIED SCHOOL DIST	4231 4TH AVE
Los Angeles	LA170	5030015900	9.81	10.00	L A UNIFIED SCHOOL DIST	4041 HILLCREST DR
Los Angeles	LA171	5034010900	3.92	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA172	5036027900	3.56	10.00	L A UNIFIED SCHOOL DIST	3989 S HOBART BLVD
Los Angeles	LA173	5040016908	4.90	10.00	L A UNIFIED SCHOOL DIST	1260 W 36TH PL
Los Angeles	LA174	5041013905	4.07	10.00	L A UNIFIED SCHOOL DIST	3556 W 36TH ST
Los Angeles	LA175	5041034901	1.29	10.00	L A UNIFIED SCHOOL DIST	3751 S HARVARD BLVD
Los Angeles	LA176	5045001900	5.17	10.00	L A UNIFIED SCHOOL DIST	4400 COLISEUM ST
Los Angeles	LA177	5049017901	3.83	10.00	L A UNIFIED SCHOOL DIST	5611 S ORANGE DR
Los Angeles	LA178	5050022900	3.66	10.00	L A UNIFIED SCHOOL DIST	2925 VIRGINIA RD
Los Angeles	LA179	5054029906	4.44	10.00	L A UNIFIED SCHOOL DIST	1435 W 27TH ST
Los Angeles	LA180	5124020903	1.25	10.00	L A UNIFIED SCHOOL DIST	2020 OAK ST
Los Angeles	LA181	5124021906	2.79	10.00	L A UNIFIED SCHOOL DIST	2020 OAK ST
Los Angeles	LA182	6016023912	11.39	10.00	L A UNIFIED SCHOOL DIST	7001 S ST ANDREWS PL
Los Angeles	LA183	5056018912	4.06	10.00	L A UNIFIED SCHOOL DIST	1626 ORCHARD AVE
Los Angeles	LA184	5071022900	3.73	10.00	L A UNIFIED SCHOOL DIST	1745 VINEYARD AVE
Los Angeles	LA185	5072014901	1.37	10.00	L A UNIFIED SCHOOL DIST	1717 7TH AVE
Los Angeles	LA186	5075034906	2.24	10.00	L A UNIFIED SCHOOL DIST	1925 S BUDLONG AVE
Los Angeles	LA187	5075033900	2.03	10.00	L A UNIFIED SCHOOL DIST	1925 S BUDLONG AVE
Los Angeles	LA188	5077009913	2.48	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA189	5077026902	2.07	10.00	L A UNIFIED SCHOOL DIST	2726 FRANCIS AVE
Los Angeles	LA190	5080023900	2.23	10.00	L A UNIFIED SCHOOL DIST	980 S HOBART BLVD
Los Angeles	LA191	5082007903	2.68	10.00	L A UNIFIED SCHOOL DIST	1212 QUEEN ANNE PL
Los Angeles	LA192	5083001900	18.58	10.00	L A UNIFIED SCHOOL DISTRICT	4650 W OLYMPIC BLVD
Los Angeles	LA193	5084005905	5.23	10.00	L A UNIFIED SCHOOL DIST	5241 W OLYMPIC BLVD
Los Angeles	LA194	5092008915	1.40	10.00	L A UNIFIED SCHOOL DIST	4056 WILSHIRE BLVD
Los Angeles	LA195	5092011904	2.69	10.00	L A UNIFIED SCHOOL DIST	745 S WILTON PL
Los Angeles	LA196	5094006902	2.36	10.00	LA UNIFIED SCHOOL DISTRICT	
Los Angeles	LA197	5094006903	3.23	10.00	LA UNIFIED SCHOOL DISTRICT	
Los Angeles	LA198	5137014903	2.89	10.00	L A UNIFIED SCHOOL DIST	1000 GRATTAN ST
Los Angeles	LA199	5141005901	1.79	10.00	L A UNIFIED SCHOOL DIST	2401 WILSHIRE BLVD
Los Angeles	LA200	5157014900	2.39	10.00	L A UNIFIED SCHOOL DIST	421 ROSEMONT AVE
Los Angeles	LA201	5157018900	1.58	10.00	L A UNIFIED SCHOOL DISTRICT	123 N LAKE ST
Los Angeles	LA202	5507017900	10.54	10.00	L A UNIFIED SCHOOL DIST	600 S MCCADDEN PL
Los Angeles	LA203	5517014900	2.53	10.00	L A UNIFIED SCHOOL DIST	220 S HOBART BLVD
Los Angeles	LA204	5520014900	3.11	10.00	L A UNIFIED SCHOOL DIST	4211 OAKWOOD AVE
Los Angeles	LA205	5522023903	4.59	10.00	L A UNIFIED SCHOOL DIST	501 N VAN NESS AVE
Los Angeles	LA206	5532013900	6.39	10.00	L A UNIFIED SCHOOL DIST	929 N LAS PALMAS AVE
Los Angeles	LA207	5536014900	3.06	10.00	L A UNIFIED SCHOOL DIST	1070 N VAN NESS AVE
Los Angeles	LA208	4305003900	4.91	10.00	L A UNIFIED SCHOOL DIST	9233 AIRDROME ST

Appendix E - List of Parcels in the Medium Tier /School Districts Only

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA209	4325030900	8.66	10.00	L A UNIFIED SCHOOL DIST	1650 SELBY AVE
Los Angeles	LA210	5063021901	3.88	10.00	L A UNIFIED SCHOOL DIST	2411 S MARVIN AVE
Los Angeles	LA211	5063022908	1.59	10.00	L A UNIFIED SCHOOL DIST	2411 S MARVIN AVE
Los Angeles	LA212	5068008900	3.39	10.00	L A UNIFIED SCHOOL DIST	1661 S CRESCENT HEIGHTS BLVD
Los Angeles	LA213	5088018900	3.46	10.00	L A UNIFIED SCHOOL DIST	6351 W OLYMPIC BLVD
Los Angeles	LA214	5527021900	24.15	10.00	L A UNIFIED SCHOOL DIST	7850 MELROSE AVE
Los Angeles	LA215	5528018900	3.68	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA216	5529020901	1.56	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA217	5545019915	2.92	10.00	L A UNIFIED SCHOOL DIST	5735 FERNWOOD AVE
Los Angeles	LA218	5548014900	13.30	10.00	L A UNIFIED SCHOOL DIST	1521 N HIGHLAND AVE
Los Angeles	LA219	5401015900	1.49	10.00	L A UNIFIED SCHOOL DIST	610 MICHELTORENA ST
Los Angeles	LA220	5429025900	1.81	10.00	L A UNIFIED SCHOOL DIST	1511 MICHELTORENA ST
Los Angeles	LA221	5429025901	1.78	10.00	L A UNIFIED SCHOOL DIST	1511 MICHELTORENA ST
Los Angeles	LA222	5537009910	1.75	10.00	L A UNIFIED SCHOOL DIST	5227 SANTA MONICA BLVD
Los Angeles	LA223	5540003900	2.83	10.00	L A UNIFIED SCHOOL DIST	1133 N MARIPOSA AVE
Los Angeles	LA224	5544027903	2.59	10.00	L A UNIFIED SCHOOL DIST	1530 N WILTON PL
Los Angeles	LA225	5122003900	3.24	10.00	L A UNIFIED SCHOOL DIST	151 W 30TH ST
Los Angeles	LA226	5122003902	2.87	10.00	L A UNIFIED SCHOOL DIST	151 W 30TH ST
Los Angeles	LA227	5126001900	1.47	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA228	5128016904	3.69	10.00	L A UNIFIED SCHOOL DIST	2807 STANFORD AVE
Los Angeles	LA229	5128016910	1.37	10.00	L A UNIFIED SCHOOL DIST	2807 STANFORD AVE
Los Angeles	LA230	5134022903	1.34	10.00	L A UNIFIED SCHOOL DIST	240 W VENICE BLVD
Los Angeles	LA231	5134022902	1.34	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA232	4218003900	7.14	10.00	L A UNIFIED SCHOOL DIST	11735 BRADDOCK DR
Los Angeles	LA233	5123008905	3.26	10.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA234	4235021900	12.26	10.00	L A UNIFIED SCHOOL DIST	3960 S CENTINELA AVE
Los Angeles	LA235	4262004900	0.70	9.00	L A UNIFIED SCHOOL DIST	11800 TEXAS AVE
Los Angeles	LA236	6017012900	3.69	9.00	L A UNIFIED SCHOOL DIST	2112 W 74TH ST
Los Angeles	LA237	4106026900	5.83	9.00	L A UNIFIED SCHOOL DIST	6011 W 79TH ST
Los Angeles	LA238	4005023900	3.31	9.00	L A UNIFIED SCHOOL DIST	5939 2ND AVE
Los Angeles	LA239	4006013900	3.74	9.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA240	4127016901	6.34	9.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA241	4215005905	0.32	9.00	CULVER CITY UNIFIED SCHOOL DIST	
Los Angeles	LA242	5003014920	0.98	9.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA243	5031004900	4.17	9.00	L A UNIFIED SCHOOL DIST	4000 SANTO TOMAS DR
Los Angeles	LA244	6003005908	0.97	9.00	LOS ANGELES UNIFIED SCHOOL	
Los Angeles	LA245	6003013907	0.51	9.00	L A UNIFIED SCHOOL DIST	5940 S BUDLONG AVE
Los Angeles	LA246	5056014908	0.56	9.00	L A UNIFIED SCHOOL DIST	1715 MAGNOLIA AVE
Los Angeles	LA247	5056024905	0.82	9.00	L A UNIFIED SCHOOL DIST	1584 W WASHINGTON BLVD
Los Angeles	LA248	5056024904	0.61	9.00	L A UNIFIED SCHOOL DIST	1500 W WASHINGTON BLVD
Los Angeles	LA249	5072014902	0.51	9.00	L A UNIFIED SCHOOL DIST	1717 7TH AVE
Los Angeles	LA250	5073001901	0.53	9.00	L A UNIFIED SCHOOL DIST	1512 ARLINGTON AVE
Los Angeles	LA251	5075033901	0.69	9.00	L A UNIFIED SCHOOL DIST	1925 S BUDLONG AVE
Los Angeles	LA252	5076007900	0.88	9.00	L A UNIFIED SCHOOL DISTRICT	2481 W 11TH ST
Los Angeles	LA253	5077021900	0.59	9.00	L A UNIFIED SCHOOL DIST	2726 FRANCIS AVE
Los Angeles	LA254	5080016907	0.57	9.00	L A UNIFIED SCHOOL DIST	980 S HOBART BLVD
Los Angeles	LA255	5082007910	0.57	9.00	L A UNIFIED SCHOOL DIST	1212 QUEEN ANNE PL
Los Angeles	LA256	5137007911	0.58	9.00	L A UNIFIED SCHOOL DISTRICT	1333 E OLYMPIC BLVD
Los Angeles	LA257	5141006904	0.59	9.00	L A UNIFIED SCHOOL DIST	611 S CARONDELET ST
Los Angeles	LA258	5142023900	0.88	9.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA259	5157015905	0.55	9.00	L A UNIFIED SCHOOL DIST	421 ROSEMONT AVE
Los Angeles	LA260	5513030900	4.58	9.00	L A UNIFIED SCHOOL DIST	201 S JUNE ST
Los Angeles	LA261	5517007916	0.76	9.00	L A UNIFIED SCHOOL DIST	225 S OXFORD AVE
Los Angeles	LA262	5517007917	0.62	9.00	L A UNIFIED SCHOOL DIST	218 S WESTERN AVE
Los Angeles	LA263	5517007918	0.55	9.00	L A UNIFIED SCHOOL DIST	200 S WESTERN AVE
Los Angeles	LA264	5533017901	1.02	9.00	L A UNIFIED SCHOOL DIST	955 VINE ST
Los Angeles	LA265	5533018900	3.06	9.00	L A UNIFIED SCHOOL DIST	955 VINE ST
Los Angeles	LA266	4301017904	0.97	9.00	L A UNIFIED SCHOOL DIST	2450 S SHENANDOAH ST
Los Angeles	LA267	4321015900	3.60	9.00	L A UNIFIED SCHOOL DIST	2050 SELBY AVE
Los Angeles	LA268	4326016900	3.14	9.00	L A UNIFIED SCHOOL DIST	1403 FAIRBURN AVE
Los Angeles	LA269	5525010900	3.58	9.00	L A UNIFIED SCHOOL DIST	731 N DETROIT ST
Los Angeles	LA270	4360024900	3.25	9.00	L A UNIFIED SCHOOL DIST	615 HOLMBY AVE
Los Angeles	LA271	5547015900	1.26	9.00	L A UNIFIED SCHOOL DIST	6611 SELMA AVE
Los Angeles	LA272	5547015901	1.11	9.00	L A UNIFIED SCHOOL DIST	6611 SELMA AVE

Appendix E - List of Parcels in the Medium Tier /School Districts Only

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA273	5550013900	3.57	9.00	L A UNIFIED SCHOOL DIST	7450 HAWTHORN AVE
Los Angeles	LA274	5539005900	2.56	9.00	L A UNIFIED SCHOOL DIST	4345 LOCKWOOD AVE
Los Angeles	LA275	5539024901	3.10	9.00	L A UNIFIED SCHOOL DIST	607 N WESTMORELAND AVE
Los Angeles	LA276	5542027909	1.31	9.00	L A UNIFIED SCHOOL DIST	1153 N WESTMORELAND AVE
Los Angeles	LA277	5589028900	2.58	9.00	L A UNIFIED SCHOOL DIST	1740 N NEW HAMPSHIRE AVE
Los Angeles	LA278	5126018917	0.69	9.00	L A UNIFIED SCHOOL DIST	2405 S GRAND AVE
Los Angeles	LA279	5127002908	0.74	9.00	L A UNIFIED SCHOOL DIST	1635 S SAN PEDRO ST
Los Angeles	LA280	4212001900	4.02	9.00	L A UNIFIED SCHOOL DIST	12814 MAXELLA AVE
Los Angeles	LA281	4255006900	4.44	9.00	L A UNIFIED SCHOOL DIST	10650 ASHBY AVE
Los Angeles	LA282	4001013900	2.24	9.00	INGLEWOOD UNIFIED SCHOOL DIST	
Los Angeles	LA283	5047014901	4.87	9.00	L A UNIFIED SCHOOL DIST	5421 RODEO RD
Los Angeles	LA284	5142026921	0.61	9.00	L A UNIFIED SCHOOL DISTRICT	1500 WILSHIRE BLVD
Los Angeles	LA285	4220012900	4.58	9.00	L A UNIFIED SCHOOL DIST	12221 JUNIETTE ST
Los Angeles	LA286	4211013900	4.09	9.00	L A UNIFIED SCHOOL DIST	
Los Angeles	LA287	4254023901	0.33	8.00	L A UNIFIED SCHOOL DIST	10860 WOODBINE ST
Los Angeles	LA288	5016015926	0.29	8.00	L A UNIFIED SCHOOL DISTRICT	1717 W 47TH ST
Los Angeles	LA289	5018003914	0.34	8.00	LOS ANGELES UNIFIED SCHOOL DIST	856 W VERNON AVE
Los Angeles	LA290	5041026900	0.46	8.00	L A UNIFIED SCHOOL DIST	3751 S HARVARD BLVD
Los Angeles	LA291	5045019900	0.60	8.00	L A UNIFIED SCHOOL DIST	3833 CRENSHAW BLVD
Los Angeles	LA292	5054029912	0.27	8.00	L A UNIFIED SCHOOL DISTRICT	1435 W 27TH ST
Los Angeles	LA293	5123008910	0.29	8.00	L A UNIFIED SCHOOL	
Los Angeles	LA294	6003006901	0.44	8.00	L A UNIFIED SCHOOL DIST	5940 S BUDLONG AVE
Los Angeles	LA295	6004006900	0.29	8.00	L A UNIFIED SCHOOL DIST	5940 S BUDLONG AVE
Los Angeles	LA296	5056024906	0.45	8.00	L A UNIFIED SCHOOL DIST	1960 S VERMONT AVE
Los Angeles	LA297	5056025908	0.28	8.00	L A UNIFIED SCHOOL DIST	1494 W WASHINGTON BLVD
Los Angeles	LA298	5056025909	0.25	8.00	L A UNIFIED SCHOOL DIST	1910 ELLENDALE PL
Los Angeles	LA299	5056030904	0.44	8.00	L A UNIFIED SCHOOL DIST	2000 S VERMONT AVE
Los Angeles	LA300	5056024903	0.47	8.00	L A UNIFIED SCHOOL DISTRICT	1944 N VERMONT AVE
Los Angeles	LA301	5056030909	0.33	8.00	L A UNIFIED SCHOOL DIST	2011 MENLO AVE
Los Angeles	LA302	5060030905	0.32	8.00	L A UNIFIED SCHOOL DIST	1926 3RD AVE
Los Angeles	LA303	5060030901	0.30	8.00	L A UNIFIED SCHOOL DIST	1908 3RD AVE
Los Angeles	LA304	5060030902	0.46	8.00	L A UNIFIED SCHOOL IDST	3200 E WASHINGTON BLVD
Los Angeles	LA305	5060031900	0.46	8.00	L A UNIFIED SCHOOL DISTRICT	2520 W WASHINGTON BLVD
Los Angeles	LA306	5075035907	0.30	8.00	L A UNIFIED SCHOOL DIST	1716 W WASHINGTON BLVD
Los Angeles	LA307	5075035911	0.30	8.00	L A UNIFIED SCHOOL DIST	1744 W WASHINGTON BLVD
Los Angeles	LA308	5075035900	0.38	8.00	L A UNIFIED SCHOOL DISTRICT	1733 CORDOVA ST
Los Angeles	LA309	5075035913	0.30	8.00	L A UNIFIED SCHOOL DISTRICT	1738 W WASHINGTON BLVD
Los Angeles	LA310	5076008900	0.33	8.00	L A UNIFIED SCHOOL DIST	2481 W 11TH ST
Los Angeles	LA311	5077027900	0.39	8.00	L A UNIFIED SCHOOL DIST	2726 FRANCIS AVE
Los Angeles	LA312	5077026903	0.31	8.00	L A UNIFIED SCHOOL DIST	2726 FRANCIS AVE
Los Angeles	LA313	5078002904	0.40	8.00	L A UNIFIED SCHOOL DIST	2957 W OLYMPIC BLVD
Los Angeles	LA314	5078002905	0.30	8.00	L A UNIFIED SCHOOL DIST	2965 W OLYMPIC BLVD
Los Angeles	LA315	5080012905	0.39	8.00	L A UNIFIED SCHOOL DIST	1211 S HOBART BLVD
Los Angeles	LA316	5080016910	0.43	8.00	L A UNIFIED SCHOOL DISTRICT	980 S HOBART BLVD
Los Angeles	LA317	5080019911	0.29	8.00	L A UNIFIED SCHOOL DIST	1211 S HOBART BLVD
Los Angeles	LA318	5080012904	0.34	8.00	L A UNIFIED SCHOOL DIST	1211 S HOBART BLVD
Los Angeles	LA319	5080016908	0.29	8.00	L A UNIFIED SCHOOL DIST	980 S HOBART BLVD
Los Angeles	LA320	5080019921	0.30	8.00	L A UNIFIED SCHOOL DIST	1211 S HOBART BLVD
Los Angeles	LA321	5080023903	0.43	8.00	L A UNIFIED SCHOOL DIST	980 S HOBART BLVD
Los Angeles	LA322	5080023904	0.32	8.00	L A UNIFIED SCHOOL DIST	980 S HOBART BLVD
Los Angeles	LA323	5092011901	0.46	8.00	L A UNIFIED SCHOOL DIST	745 S WILTON PL
Los Angeles	LA324	5094006905	0.30	8.00	L A UNIFIED SCHOOL DIST	3131 W 8TH ST
Los Angeles	LA325	5137007913	0.42	8.00	L A CITY UNIFIED SCHOOL DIST	
Los Angeles	LA326	5141016900	0.26	8.00	L A UNIFIED SCHOOL DIST	2300 W 7TH ST
Los Angeles	LA327	5141016902	0.42	8.00	L A UNIFIED SCHOOL DIST	2300 W 7TH ST
Los Angeles	LA328	5141016905	0.37	8.00	L A UNIFIED SCHOOL DISTRICT	2323 W 8TH ST
Los Angeles	LA329	5141016903	0.40	8.00	L A UNIFIED SCHOOL DIST	2300 W 7TH ST
Los Angeles	LA330	5142013911	0.30	8.00	L A UNIFIED SCHOOL DIST	680 LITTLE ST
Los Angeles	LA331	5142013906	0.35	8.00	L A UNIFIED SCHOOL DISTRICT	680 LITTLE ST
Los Angeles	LA332	5142026906	0.30	8.00	L A UNIFIED SCHOOL DIST	1501 W 7TH ST
Los Angeles	LA333	5501014901	0.62	8.00	L A UNIFIED SCHOOL DIST	108 BIMINI PL
Los Angeles	LA334	5518032906	0.48	8.00	L A UNIFIED SCHOOL DIST	151 N VERMONT AVE
Los Angeles	LA335	5518032900	0.32	8.00	L A UNIFIED SCHOOL DIST	101 N VERMONT AVE
Los Angeles	LA336	5536014905	0.27	8.00	L A UNIFIED SCHOOL DIST	1000 N VAN NESS AVE

Appendix E - List of Parcels in the Medium Tier /School Districts Only

City	Cluster ID	AIN	Acres	Cluster Score	Parcel Owner	Address
Los Angeles	LA337	5529023901	0.44	8.00	L A UNIFIED SCHOOL DIST	925 N HAYWORTH AVE
Los Angeles	LA338	5545019914	0.28	8.00	L A UNIFIED SCHOOL DIST	1302 N VAN NESS AVE
Los Angeles	LA339	5547015905	0.56	8.00	L A UNIFIED SCHOOL DISTRICT	6611 SELMA AVE
Los Angeles	LA340	5539023900	0.86	8.00	L A UNIFIED SCHOOL DIST	607 N WESTMORELAND AVE
Los Angeles	LA341	5122004900	0.29	8.00	L A UNIFIED SCHOOL DIST	151 W 30TH ST
Los Angeles	LA342	5126018916	0.46	8.00	L A UNIFIED SCHOOL DISTRICT	2321 S GRAND AVE
Los Angeles	LA343	5142026915	0.30	8.00	L A UNIFIED SCHOOL DISTRICT	1546 WILSHIRE BLVD
Los Angeles	LA344	4006011900	0.52	8.00	L A UNIFIED SCHOOL DIST	6420 11TH AVE
Los Angeles	LA345	4006011901	0.26	7.00	L A UNIFIED SCHOOL DIST	6434 11TH AVE
Los Angeles	LA346	5501014900	0.34	7.00	L A UNIFIED SCHOOL DIST	108 BIMINI PL
Los Angeles	LA347	5501010907	0.29	7.00	L A UNIFIED SCHOOL DISTRICT	250 N JUANITA AVE
Los Angeles	LA348	5534012909	0.37	7.00	L A UNIFIED SCHOOL DISTRICT	5951 SANTA MONICA BLVD
Los Angeles	LA349	5547015904	0.31	7.00	L A UNIFIED SCHOOL DISTRICT	6611 SELMA AVE
Los Angeles	LA350	5547015908	0.45	7.00	L A UNIFIED SCHOOL DISTRICT	6611 SELMA AVE
Los Angeles	LA351	5547015903	0.31	7.00	L A UNIFIED SCHOOL DISTRICT	6611 SELMA AVE
Los Angeles	LA352	5539005903	0.47	7.00	L A UNIFIED SCHOOL DIST	4345 LOCKWOOD AVE
Los Angeles	LA353	5539025900	0.34	7.00	L A UNIFIED SCHOOL DIST	607 N WESTMORELAND AVE
Los Angeles	LA354	5539024902	0.34	7.00	L A UNIFIED SCHOOL DIST	607 N WESTMORELAND AVE
Los Angeles	LA355	5539025902	0.34	7.00	L A UNIFIED SCHOOL DIST	607 N WESTMORELAND AVE
West Hollywood	WH04	5529009900	1.44	9.00	L A UNIFIED SCHOOL DIST	
West Hollywood	WH05	4340003900	3.00	8.00	L A UNIFIED SCHOOL DIST	1201 S FIGUEROA ST
West Hollywood	WH06	5529020900	1.71	12.00	L A UNIFIED SCHOOL DIST	

Appendix 4.C

Engineering & Environmental Feasibility for Selected Signature Projects

DRAFT

DRAFT TECHNICAL MEMORANDUM

ENGINEERING AND ENVIRONMENTAL FEASIBILITY FOR SELECTED REGIONAL PROJECT SITES

PREPARED FOR

Ballona Creek Watershed Management Group

FEBRUARY 2015

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APPENDICES

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Appendix B – Field Investigation Findings

Appendix C – Sizing and Confirmation Meeting

Appendix D – Optimization Results by Tetra Tech

Appendix E – Project Site Maps with BMP Opportunity Area

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Appendix G – Cost Opinions

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1 Background

The purpose of this technical memorandum is to describe the findings of the additional engineering and environmental feasibility reviews of the nine regional project sites selected by the Ballona Creek (BC) Watershed Management Group (WMG). The selection of eight of the nine project sites is documented in *Regional Project Section Process and Preliminary List of Projects*, October 2014. The ninth project site, Ladera Park, was previously identified by Los Angeles County (County) using a separate selection process. The concepts developed for all project sites will be included in the Enhanced Watershed Management Plan (EWMP) to be submitted to the Regional Water Quality Control Board (Regional Board) in June 2015.

The following sections present the methodology employed to evaluate the nine regional project locations for engineering and environmental feasibility.

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2 Evaluation Methodology

The nine selected BC project sites underwent further evaluations to determine the engineering and environmental feasibility of constructing regional best management practice (BMP) projects at these locations. Evaluations included various desktop analyses, field investigations, hydrologic modeling, and discussions with project stakeholders. The evaluation methodology is summarized in the following sections.

2.1 COMPILE MAPPING, STORM DRAINAGE, AND WATERSHED INFORMATION

Initial evaluation efforts focused on compiling information on the surrounding storm drain system and contributing watershed area for each project site. Storm drain data was obtained from the City of Los Angeles's geographic information system (GIS) data, GIS data from Los Angeles County, as-built record drawings provided on NavigateLA, and other as-built record drawings provided by individual member agencies. NavigateLA is a web-based mapping application that delivers maps and reports based on data supplied by various City departments, Los Angeles County, and Thomas Brothers maps. Storm drain sizes and invert elevations were noted from the available data. This assessment of the surrounding storm drain network provided insight into the typical flow volumes experienced and the feasibility of intercepting the flows at the project locations. Storm drain connectivity upstream of the project sites was also reviewed in conjunction with available contour data. This analysis led to identifying the contributing watershed area, or drainage area, for each project site.

Detailed information compiled from this initial desktop evaluation, such as relevant storm drain depths and critical watershed divides, was plotted on maps suitable for review during the field investigations. These maps are provided in Appendix E and corresponding data for the BMP Site Data Points are included with the field investigation notes in Appendix B.

2.2 CONDUCT DESKTOP EVALUATION OF INFILTRATION POTENTIAL

A desktop evaluation of the infiltration potential of all of the sites was conducted utilizing Natural Resource Conservation Service (NRCS) soil type data made available by the County GIS Data Portal. The spatial dataset identified the soil class and soil type for all areas within Los Angeles County. NRCS-accepted infiltration rates were assumed for each soil type and used to calculate a single aggregate infiltration rate for each project site. This aggregate infiltration rate was calculated by multiplying the accepted infiltration rate for each soil type by the percent of total area of that soil type within the project site. The results of this soils analysis are summarized below in Table 2.2-1. Further details are provided in Appendix A.

Table 2.2-1 Infiltration Analysis Summary

Project Site ID	Site Description	Aggregate Infiltration Rate (in/hr)
BH01	La Cienega Park / Frank Fenton Field	0.06
CC01	Culver Boulevard Median	0.30
IG01	Edward Vincent Jr. Park	0.30
LA10	Rancho Park Golf Course	0.29
WH01	Plummer Park	0.51
LA19	Queen Anne Recreation Center	0.23
LA04	Lafayette Park	0.30
LA18	Poinsettia Park	0.06
LC01	Ladera Park	0.06

2.3 CONDUCT FIELD INVESTIGATIONS TO ASSESS INITIAL OPPORTUNITY AREAS

Field investigations for eight of the nine selected BC project sites were conducted on October 16, 2014. All site visits were attended by City of Los Angeles staff, the environmental consulting team member from EnviCraft LLC, and engineering consulting team members from Black & Veatch. In some cases, operations staff or community members were engaged in discussions in the field to learn more about the selected project site. County staff performed field investigations for Ladera Park and provided necessary data and observations.

The primary objective of the field investigations was to identify the most practical project opportunity areas given each project site's existing layout and facilities. Project opportunity areas refer to a sub-area(s) within the selected project site boundary that can best accommodate the construction or implementation of the proposed BMP. In general, project opportunity areas avoided spaces posing constructability issues; established facilities such as lighted, fenced tennis courts; or environmental issues such as disturbing mature heritage trees. Findings of these field investigations for each project site are presented in the project concepts, site maps, and calculations provided in Section 3.

The project team prepared several documents that describe the findings of the field investigations, including Field Investigation Notes, data on surrounding infrastructure (BMP Site Data Points), Initial Study/Environmental Constraints Evaluation, and a Summary of Environmental Constraints. These documents are provided in Appendix B. The attribute data for surrounding infrastructure (invert elevations, diameter, ground elevation, etc.) was obtained from available record drawings on NavigateLA. Site maps presented in Appendix E include the locations of the BMP Site Data Points.

2.4 COMPILE SITE DATA AND DEVELOP BASIC BMP PARAMETERS

Findings from the field investigations were distributed to and discussed with watershed group members. Follow-up meetings were scheduled as necessary to continue to refine project concepts

and define basic BMP parameters. These basic parameters included the type of BMP, available BMP capacity or volume, and the expected runoff volume.

The type of BMP proposed at each project site falls into one of the structural BMP subcategories based on its major function. The subcategories and example BMP types are listed below. BMP types for each project site were selected based on the findings from the desktop analyses and field investigations, and input from project stakeholders. The proposed BMP type for each site is described in Section 3.

- Infiltration BMP – surface infiltration basin, subsurface infiltration gallery
- Detention BMP – surface detention basin, subsurface detention gallery
- Constructed Wetland BMP – constructed wetlands, flow-through/linear wetland
- Treatment Facility BMP – facilities designed to treat runoff from and return it to the receiving water
- Low Flow Diversion BMP – facilities designed to divert dry weather flows to the sanitary sewer

The available BMP capacity or volume was calculated based on the estimated BMP depth and project opportunity area (or BMP footprint) at each project site. BMP depths were identified based on groundwater level and practical depth per BMP type. The City provided 10-foot groundwater contour data which was used to identify the approximate groundwater elevation within the BMP opportunity areas. A minimum of a 5-foot buffer was assumed between the groundwater elevation and bottom of BMP. The proposed opportunity area at each site was reviewed with project stakeholders and thus was carried forward in the available BMP volume calculations. The identified BMP depth was multiplied by the opportunity area to estimate a maximum practical BMP volume available for each project site. This volume will be used to retain, infiltrate, or treat stormwater runoff. BMP estimated depths, opportunity areas, and available volume calculations are presented for each project site in Section 3.

In order to determine if the available BMP volume at each project site is adequate to meet the EWMP Permit requirements, the 85th percentile runoff volume had to be determined for each project site and compared to the feasible BMP capacity. Runoff volumes were estimated using a hydrologic model and providing drainage area parameters for each site. Findings from previous desktop analyses and field investigations showed that most sites appeared to have a larger watershed area tributary to the site (by intercepting flow in a channel or larger pipe), as well as a somewhat smaller tributary watershed area (by intercepting flow in a smaller pipe). Thus, a maximum drainage area and an alternative (or minimum) drainage area were identified for all sites except Poinsettia Park. A smaller tributary watershed could not be isolated at this location, so only the maximum drainage area was used to calculate the 85th percentile runoff volume. The hydrologic model was run to estimate the 85th percentile runoff volume for each project site using both maximum and alternative drainage areas. The maximum and alternative drainage areas, and associated 85th percentile runoff volumes, are presented for each site in Section 3. In many cases, the entire design storm for the maximum watershed area could be accommodated with the proposed BMP size; however, in other cases, the smaller watershed area did not fully utilize the BMP size. These results were discussed with the team and a scheme was developed to determine the optimal BMP size for each project site. This optimization process is described in the next section.

2.5 REFINE AND OPTIMIZE BMP PARAMETERS

The hydrologic modeling approach utilized in this engineering and environmental feasibility analysis to optimize BMP parameters was discussed and confirmed with the WMG members. Under this approach, the hydrologic model was used to determine the 85th percentile peak flow resulting from the maximum drainage area and alternative drainage area for each project site. The model also considered a range of diversion scenarios in an effort to optimize the proposed BMP volume at each site. The hydrologic model was used to simulate the following diversion scenarios for both maximum and alternative drainage areas for each project site:

- Routing all flow through the proposed BMP
- Routing only the 85th percentile 24-hour storm event through the proposed BMP
- Routing flows from a 20 cubic feet per second (cfs) diversion through the proposed BMP

Routing the various storm sizes through the model allows project stakeholders to make more informed decisions to optimize the benefits of the proposed BMPs. For instance, a BMP that can accommodate all of the flow from its drainage area may be larger than required by the EWMP Permit, but it may take advantage of economy of scale construction costs and provide greater watershed benefits. On the other hand, if sizing limitations prevent a proposed BMP from being able to receive the 85th percentile storm event as required by the EWMP Permit, it can still provide the benefits of a regional BMP project, but at a smaller scale. A 20 cfs diversion was assumed to define the lower limit of the diversion scenarios as it generally represents a maximum realistic pumped flow rate.

Based on the available volume of the proposed BMP and the runoff volume estimated for the three diversion scenarios (for both maximum and alternative drainage areas), a maximum cost-effective BMP size was determined for each project site. Full graphical and tabular results of the optimization are presented in Appendix D. A summary of the optimization parameters and recommendations for each project site are presented in Section 3.

3 Project Concepts

Concepts for the eight regional project sites are presented in this section. The following items are included for each project site:

- A fact sheet with a summary description of the recommended BMP project; BMP parameters; and a description of potential benefits
- A figure showing a plan view of the project site, showing the identified BMP opportunity area(s) and surrounding storm drain infrastructure
- A figure showing a plan view of the maximum and alternative drainage areas delineated for the project site

The fact sheet for each project site includes a table summarizing key design parameters for the BMP. The items presented in the summary tables are defined below.

Project Site Parameters	Total (Maximum) Drainage Area	The area in acres of the maximum drainage area delineated for each project site. The drainage area delineation is described in Section 2.
	Alternative (Minimum) Drainage Area	The area in acres of the alternative drainage area delineated for each project site. The drainage area delineation is described in Section 2.
	Maximum Required BMP Volume	The BMP volume in acre-feet that is required to retain the 85 th percentile design storm volume generated from the maximum drainage area.
	Alternative Required BMP Volume	The BMP volume in acre-feet that is required to retain the 85 th percentile design storm volume generated from the alternative drainage area.
	Groundwater Depth	The groundwater depth in feet from the ground surface. Groundwater depths were determined using groundwater contours and ground elevation GIS data provided by the City.
BMP Design Parameters	BMP Opportunity Area	The area in acres of the BMP opportunity area(s) identified during the field investigations and follow-up discussions. This process is described in Section 2.
	Recommended Maximum BMP Depth	The depth in feet of the recommended BMP project. This depth is based on groundwater depth and practical project design characteristics, as discussed in Section 2.
	Available BMP Volume	The BMP volume in acre-feet that is potentially available at the project site. This volume is based on the BMP opportunity area and recommended depth presented above, as discussed in Section 2.
	Recommended Active BMP Volume	The recommended BMP volume in acre-feet. This volume is recommended based on the hydrologic modeling and optimization results as discussed in Section 2.

3.1 LA CIENEGA PARK / FRANK FENTON FIELD

La Cienega Park and Frank Fenton Field are both located within the City of Beverly Hills in an area that drains to Ballona Creek. The park is owned and operated by the City of Beverly Hills. The parks consist of a community center, tennis courts, a playground, a running track and several active recreational fields. The potential BMP is proposed as a below-ground retention/infiltration basin situated beneath sports fields on the south and east portions of the park.

The maximum drainage area for this project site is approximately 7,776 acres. After review of available site opportunities and surrounding infrastructure, a smaller (alternative) drainage area was delineated, encompassing approximately 578 acres.

After reviewing the hydrologic model results and estimated runoff volumes for the various diversion scenarios, it was determined that a retention/infiltration BMP sized to accommodate the 85th percentile, 24-hour storm event runoff contributed from the alternative drainage area is best suited for this project site. As a result, the recommended active volume of the BMP is 24.0 acre-feet.

Table 3.1-1 summarizes key conceptual design parameters of the BMP. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.1-1 Summary of La Cienega Park/Fenton Field (BH01)

Table 3.1-1 Summary of La Cienega Park / Frank Fenton Field (BH01)		
Project Site Parameters	Total (Maximum) Drainage Area	7,776 ac
	Alternative (Minimum) Drainage Area	578 ac
	Maximum Required BMP Volume	352 ac-ft
	Alternative Required BMP Volume	24 ac-ft
	Groundwater Depth	25 ft
BMP Design Parameters	BMP Opportunity Area	6.4 ac
	Recommended Maximum BMP Depth	8 ft
	Available BMP Volume	51.3 ac-ft
	Recommended Active BMP Volume	24 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized for a significant amount of on-site irrigation

3.2 CULVER BOULEVARD MEDIAN

The Culver Boulevard Median site is located within Culver City in an area that drains to Ballona Creek. The site is located within public right-of-way along Culver Boulevard between Huron Avenue and Sepulveda Boulevard. The site will primarily make use of an abandoned rail corridor from a former light rail system within the median of Culver Boulevard. The potential BMP is proposed as a below-ground retention/infiltration basin situated beneath the median.

The maximum drainage area for this project site is approximately 829 acres. After review of available site opportunities and surrounding infrastructure, a smaller (alternative) drainage area was delineated, encompassing approximately 139 acres.

After reviewing the hydrologic model results and estimated runoff volumes for the various diversion scenarios, it was determined that a retention/infiltration BMP at this site cannot accommodate the 85th percentile, 24-hour design storm runoff contributed from the maximum drainage area. As a result, the recommended active volume of the BMP is 29.2 acre-feet. This optimized project size allows for maximizing the treatment volume while staying below the point of diminishing returns. The optimization curve is presented in Appendix D.

Table 3.2-1 summarizes key conceptual design parameters of the BMP. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.2-1 Summary of Culver Boulevard Median (CC01)

Table 3.2-1 Summary of Culver Boulevard Median (CC01)		
Project Site Parameters	Total (Maximum) Drainage Area	829 ac
	Alternative (Minimum) Drainage Area	139 ac
	Maximum Required BMP Volume	41 ac-ft
	Alternative Required BMP Volume	5.6 ac-ft
	Groundwater Depth	53 ft
BMP Design Parameters	BMP Opportunity Area	2.2 ac
	Recommended Maximum BMP Depth	15 ft
	Available BMP Volume	33.7 ac-ft
	Recommended Active BMP Volume	29.2 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized on-site irrigation

3.3 EDWARD VINCENT JR. PARK

Edward Vincent Jr. Park is located within the City of Inglewood in an area that drains to Centinela Creek. The park is owned and maintained by the City of Inglewood. The park consists of a recreation center, community pool, sports courts, active recreational fields and a large amount of open turf areas with some trees. The potential BMP type is being considered for above-ground retention/infiltration basin at the west side of the park. It had been discussed that the low point of the park could possibly be utilized as a biofiltration/wetlands area.

The maximum drainage area for this project site is approximately 983 acres. After review of the available site information and surrounding infrastructure, a smaller (alternative) drainage area was delineated, encompassing approximately 453 acres.

After reviewing the hydrologic model results and estimated runoff volumes for the various diversion scenarios, it was determined that this site is suitable for an above-ground retention/infiltration BMP sized to accommodate more than the 85th percentile design storm runoff volume contributed from the maximum drainage area. As a result, the recommended active volume of the BMP is 45.7 acre feet.

Table 3.3-1 summarizes key conceptual design parameters of the BMP. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.3-1 Summary of Edward Vincent Jr. Park (IG01)

Table 3.3-1 Summary of Edward Vincent Jr. Park (IG01)		
Project Site Parameters	Total (Maximum) Drainage Area	983 ac
	Alternative (Minimum) Drainage Area	453 ac
	Maximum Required BMP Volume	31.5 ac-ft
	Alternative Required BMP Volume	11 ac-ft
	Groundwater Depth	180 ft
BMP Design Parameters	BMP Opportunity Area	6.3 ac
	Recommended Maximum BMP Depth	10 ft
	Available BMP Volume	63 ac-ft
	Recommended Active BMP Volume	45.7 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Surface water can be utilized for aesthetic and other community benefits
- Water harvested can be utilized for a significant amount of on-site irrigation

3.4 RANCHO PARK GOLF COURSE

Rancho Park Golf Course is located within the City of Los Angeles in an area that drains to the Sepulveda Channel. The site consists of an 18-hole golf course, a driving range, a club house, and several active recreational fields. The potential BMP type is proposed as a below-ground retention/infiltration basin situated beneath sports fields on the east side of the facility. The City is supportive of another potential BMP type that is proposed for the west side of the park which is an above-ground retention/infiltration basin in an area currently utilized for some staging and storage.

The maximum drainage area for this project site is 7,273 acres. This maximum drainage area includes the watershed draining to Benedict Canyon, located less than two miles to the east of the identified BMP opportunity area. After review of available site information and surrounding infrastructure data, a smaller (alternative) drainage area was delineated, encompassing approximately 359 acres.

After reviewing the hydrologic model results and estimated runoff volumes for the various diversion scenarios, it was determined that this site is best suited for a proposed retention/infiltration BMP, sized to accommodate the 85th percentile design storm volume contributed from the alternative drainage area. As a result, the recommended active volume of the BMP is 11.6 acre feet. It should be noted that the City is considering a project to divert dry weather flows from nearby Benedict Canyon to be treated at this project site. The recommended active volume presented below does not include the potential diversion of dry weather flows from Benedict Canyon.

Table 3.4-1 summarizes key conceptual design parameters of the BMP. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.4-1 Summary of Rancho Park Golf Course (LA10)

Table 3.4-1 Summary of Rancho Park Golf Course (LA10)		
Project Site Parameters	Total (Maximum) Drainage Area	7,273 ac
	Alternative (Minimum) Drainage Area	359 ac
	Maximum Required BMP Volume	181.4 ac-ft
	Alternative Required BMP Volume	7.7 ac-ft
	Groundwater Depth	50 ft
BMP Design Parameters	BMP Opportunity Area	15.5 ac
	Recommended Maximum BMP Depth	26 ft
	Available BMP Volume	403 ac-ft
	Recommended Active BMP Volume	11.6 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Surfaced water can be utilized for aesthetic and other community benefits
- Water harvested can be utilized for a significant amount of on-site irrigation
- Treatment of dry weather runoff from nearby Benedict Canyon

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3.5 PLUMMER PARK

Plummer Park is located within the City of West Hollywood in an area that drains to Benedict Canyon. The park consists of a community center, tennis courts, war memorial, and several wooded areas with mature trees. The potential BMP type is proposed as a below-ground retention/infiltration basin situated beneath a parking lot on the north side of the park.

The maximum drainage area for this project site is approximately 389 acres. After review of available site information and surrounding infrastructure data, a smaller (alternative) drainage area was delineated, encompassing approximately 283 acres.

After reviewing the hydrologic model results and estimated runoff volumes for the various diversion scenarios, it was determined that this site is not suited for accommodating the 85th percentile design storm runoff volume contributed from the smaller alternative drainage area. As a result, a BMP implemented at this site will provide important water quality benefits; however, it will not qualify as a regional project site.

Table 3.5-1 summarizes key conceptual design parameters of the BMP. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.5-1 Summary of Plummer Park (WH01)

Table 3.5-1 Summary of Plummer Park (WH01)		
Project Site Parameters	Total (Maximum) Drainage Area	389 ac
	Alternative (Minimum) Drainage Area	283 ac
	Maximum Required BMP Volume	13 ac-ft
	Alternative Required BMP Volume	9.3 ac-ft
	Groundwater Depth	13 ft
BMP Design Parameters	BMP Opportunity Area	0.9 ac
	Recommended Maximum BMP Depth	8 ft
	Available BMP Volume	7.2 ac-ft
	Recommended Active BMP Volume	7.2 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized for on-site irrigation

3.6 QUEEN ANNE RECREATION CENTER

The Queen Anne Recreation Center is located in the City of Los Angeles in an area that drains to Ballona Creek. Park facilities include an auditorium, barbecue pits, two softball diamonds, basketball courts, a playground, picnic area, restrooms, and tennis courts. The potential BMP type proposed is a below-ground retention/infiltration basin situated beneath the softball diamonds and open field space in the central portion of the parcel.

The maximum drainage area for this project site is approximately 8,537 acres. After review of available site information and surrounding infrastructure, a smaller (alternative) drainage area was delineated, encompassing approximately 3,067 acres.

After reviewing the hydrologic model results and estimated runoff resulting from the various diversion scenarios, it was determined that this location cannot accommodate the 85th percentile design storm flows from smaller alternative drainage area. Thus, it is recommended that the BMP be sized for retention/infiltration of approximately 11.6 ac-ft of runoff, which will be conveyed to the BMP via a 20 cfs pumped diversion. 20 cfs is viewed as a maximum realistic peak pumped flowrate, as discussed in Section 2.

Table 3.6-1 summarizes key conceptual design parameters of the BMP proposed at the Queen Anne Recreation Center. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.6-1 Summary of Queen Anne Recreation Center (LA05)

Table 3.6-1 Summary of Queen Anne Recreation Center (LA05)		
Project Site Parameters	Total (Maximum) Drainage Area	8,537 ac
	Alternative (Minimum) Drainage Area	3,067 ac
	Maximum Required BMP Volume	397.3 ac-ft
	Alternative Required BMP Volume	141.7 ac-ft
	Groundwater Depth	45 ft
BMP Design Parameters	BMP Opportunity Area	2.1 ac
	Recommended Maximum BMP Depth	20 ft
	Available BMP Volume	42 ac-ft
	Recommended Active BMP Volume	11.6 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized for a significant amount of on-site irrigation

3.7 LAFAYETTE PARK

Lafayette Park is located in the City of Los Angeles in an area that drains to Ballona Creek. Park facilities include an auditorium, basketball courts, a playground, community room, picnic tables, an indoor-style soccer field, tennis courts, and a skate park. The potential BMP type is proposed as a below-ground retention/infiltration basin situated beneath the basketball court and picnic area in the north/center portion of the parcel and the wooded walkway area in the southwestern portion of the parcel.

The maximum drainage area for this project site is approximately 2,864 acres. After review of available site information and surrounding infrastructure, a smaller (alternative) drainage area was delineated, encompassing approximately 637 acres.

After reviewing the hydrologic model results and estimated runoff volume for the various diversion scenarios, it was determined that this project site cannot accommodate the retention/infiltration of the 85th percentile design storm flows contributed from the smaller alternative drainage area. As a result, the recommended active volume of the BMP is 18.0 acre feet. The recommended size has been optimized to allow for maximizing the project volume while staying below the point of diminishing returns. Optimization curves are provided in Appendix D.

Table 3.7-1 summarizes key conceptual design parameters of the BMP proposed at Lafayette Park. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) and alternative (minimum) tributary drainage areas can be found in Appendix F.

Table 3.7-1 Summary of Lafayette Park (LA04)

Table 3.7-1 Summary of Lafayette Park (LA04)		
Project Site Parameters	Total (Maximum) Drainage Area	2,864 ac
	Alternative (Minimum) Drainage Area	637 ac
	Maximum Required BMP Volume	143.5 ac-ft
	Alternative Required BMP Volume	30.4 ac-ft
	Groundwater Depth	20 ft
BMP Design Parameters	BMP Opportunity Area	2.5 ac
	Recommended Maximum BMP Depth	10 ft
	Available BMP Volume	25 ac-ft
	Recommended Active BMP Volume	18.0 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized for a significant amount of on-site irrigation

3.8 POINSETTIA PARK

Poinsettia Park is located in the City of Los Angeles in an area that drains to Ballona Creek. Park facilities include two softball diamonds, basketball courts, children's play area, handball courts, and tennis courts. The potential BMP type is proposed as a below-ground retention/infiltration basin situated beneath the softball diamonds and open field space in the northwest corner of the park.

The maximum drainage area for this project site is approximately 1,379 acres. After review of the upstream storm drainage system for this site, it was determined that a smaller alternative drainage area could not be isolated.

After reviewing the hydrologic model results and given the area and depth available for BMP opportunities at this site, it was determined that this location cannot accommodate the 85th percentile flows from the maximum drainage area. Thus, it is recommended that the BMP be sized for retention/infiltration of approximately 10.1 ac-ft of runoff, which will be conveyed to the BMP via a 20 cfs pumped diversion.

Table 3.8-1 summarizes key conceptual design parameters of the BMP proposed at Poinsettia Park. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) tributary drainage area can be found in Appendix F.

Table 3.8-1 Summary of Poinsettia Park (LA18)

Table 3.8-1 Summary of Poinsettia Park (LA18)		
Project Site Parameters	Total (Maximum) Drainage Area	1,379 ac
	Alternative (Minimum) Drainage Area	N/A
	Maximum Required BMP Volume	56 ac-ft
	Alternative Required BMP Volume	N/A
	Groundwater Depth	10 ft
BMP Design Parameters	BMP Opportunity Area	3.1 ac
	Recommended Maximum BMP Depth	5 ft
	Available BMP Volume	15.5 ac-ft
	Recommended Active BMP Volume	10.1 ac-ft

In addition to the volumetric features summarized above, it is envisioned that this site would feature the following potential benefits:

- Drains an urbanized area
- Stormwater capture and some infiltration
- Stormwater quality improvement via pre-treatment, retention, and infiltration
- Water harvested can be utilized for a significant amount of on-site irrigation

3.9 LADERA PARK

Ladera Park is located in unincorporated Los Angeles County in an area that drains to Ballona Creek. Park facilities include a baseball/softball diamond, basketball court, children's play area, community recreation center, senior center, outdoor amphitheater, picnic facilities with barbecue grills, and tennis courts. The potential BMP type is proposed as a below-ground retention/infiltration basin situated beneath the open field space along the park's eastern boundary and the baseball diamond in the southeast corner of the park.

Details on this project site were provided by the County of Los Angeles (County). Prior to the preparation of this TM, the County had completed site investigations and begun developing potential BMP project concepts including selecting the project type and identifying the drainage area and potential BMP footprint. It was decided that this BMP should be sized to accommodate the 85th percentile flows from the identified drainage area.

Per the County's direction, a 110-acre drainage area was identified. Open field space along the east boundary of the park was selected as the preferred BMP project location. Given the available area, depth, soil infiltration rate and storm volume, it was determined that this location could accommodate the 85th percentile flows from the maximum drainage area. Thus, it is recommended that the BMP be sized for retention/infiltration of approximately 5.3 ac-ft of runoff.

Table 3.8-1 summarizes key conceptual design parameters of the BMP proposed at Ladera Park. A map of the project site including key infrastructure and highlight BMP opportunity areas is provided in Appendix E. A map of the total (maximum) tributary drainage area can be found in Appendix F.

Table 3.9-1 Summary of Ladera Park (LC01)		
Project Site Parameters	Total (Maximum) Drainage Area	155 ac
	Alternative (Minimum) Drainage Area	N/A
	Maximum Required BMP Volume	5.1 ac-ft
	Alternative Required BMP Volume	N/A
	Groundwater Depth	130 ft
BMP Design Parameters	BMP Opportunity Area	0.35 ac
	Recommended Maximum BMP Depth	20 ft
	Available BMP Volume	7.0 ac-ft
	Recommended Active BMP Volume	5.3 ac-ft

4 Estimated Costs

Comparative costs (derived from WMMS's comparative costs) are presented in Table 4-1. These comparative costs were developed based on unit costs for individual construction components including planning, design, and mobilization that were collected from the Los Angeles County Department of Public Works Bid History and local vendors that serve the Los Angeles area as part of the Phase II Report: Development of the Framework for Watershed-Scale Optimization Modeling, June 2011. More detailed cost opinions (commensurate with a conceptual level of design completion) will be developed for each of the eight regional project sites, after feedback is received on this draft report.

Table 4-1 Estimated Cost Summary

Cluster ID	Site Description	Active Volume (AF)	Comparative Cost (\$M) from Tt WMMS	Capital Cost (\$M) from CWE
BH01	La Cienega Park / Frank Fenton Field	24.0	15.1	32.2
CC01	Culver Boulevard Median	29.2	7.4	35.5
IG01	Edward Vincent Jr. Park	45.7	17.0	44.9
LA10	Rancho Park Golf Course	11.6	31.7	16.2
WH01	Plummer Park	6.9	2.4	12.5
LA19	Queen Anne Recreation Center	11.6	5.3	33.2
LA04	Lafayette Park	18.0	6.7	24.4
LA18	Poinsettia Park	10.1	7.2	13.5
LC01	Ladera Park	TBD	TBD	TBD

5 Next Steps

The following presents recommended next steps in the development of this memo:

- WMG Reviews Draft Memo and provides feedback on project type and size
- With this feedback the team will:
 - develop final cost opinions
 - incorporate feedback into final memo
 - and include projects in final RAA run, and the EWMP

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6 References

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APPENDIX A

DESKTOP GEOTECHNICAL ANALYSIS

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				Yolo Clay Loam		Yolo Loam		Ramona Loam		Montezuma Clay Adobe		Hanford Fine Sandy Loam		Ramona Clay Loam	
Cluster ID	Site Name	Total Area (ac)	Aggregate Infiltration Rate (in/hr)	Soil Area (ac)	% of Site Total	Soil Area (ac)	% of Site Total	Soil Area (ac)	% of Site Total	Soil Area (ac)	% of Site Total	Soil Area (ac)	% of Site Total	Soil Area (ac)	% of Site Total
BH01	La Cienega Park	16.9	0.06	16.9	100%	0	0%	0	0%	0	0%	0	0%	0	0%
CC01	Culver Blvd Median	2.1	0.30	0	0%	2.1	100%	0	0%	0	0%	0	0%	0	0%
IG01	Edward Vincent Junior Park	50.6	0.30	0	0%	0	0%	50.6	100%	0	0%	0	0%	0	0%
LA04	Lafayette Park	9.1	0.30	0	0%	0	0%	9.1	100%	0	0%	0	0%	0	0%
LA10	Rancho Park Golf Course	189.2	0.29	5.7	3%	0	0%	182.3	96%	0	0%	0	0%	1.2	1%
LA18	Pointsettia Park	6.3	0.06	0	0%	0	0%	0.1	1%	6.2	99%	0	0%	0	0%
LA19	Queen Anne Rec Center	5.4	0.23	1.6	30%	0	0%	3.7	70%	0	0%	0	0%	0	0%
WH01	Plummer Park	7.6	0.51	0	0%	0	0%	4.3	57%	0	0%	3.2	43%	0	0%

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Hydrologic Soil Group	Infiltration Rate (in/hr)	Soil Textures	Corresponding Unified Soil Classification	
			Symbol	Description
A	1.63	gravel	GW	well-graded gravels, sandy gravels
	1.63	sandy gravel	GP	gap-graded or uniform gravels, sandy gravels
	1.63	silty gravels	GM	silty gravels, silty sandy gravels
	1.63		SW	well-graded gravelly sands
	0.8	sandy gravel	SP	gap-graded or uniform sands, gravelly sands
	0.8	loamy sand		
	0.8	sandy loam		
B	0.45		SM	silty sands, silty gravelly sands
	0.3	loam, silt loam	MH	micaceous silts, diatomaceous silts, volcanic ash
C	0.2	sandy clay loam	ML	silts, very fine sands, silty or clayey fine sands
D	0.06	clay loam	GC	clayey gravels, clayey sandy gravels
	0.06	silty clay loam	SC	clayey sands, clayey gravelly sands
	0.06	sandy clay	CL	low plasticity clays, sandy or silty clays
	0.06	silty clay	OL	organic silts and clays of low plasticity
	0.06	clay	CH	highly plastic clays and sandy clays
	0.06		OH	organic silts and clays of high plasticity

APPENDIX B

FIELD INVESTIGATION

FINDINGS

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LA04: Lafayette Park

Stop #1, 8:30AM

General:

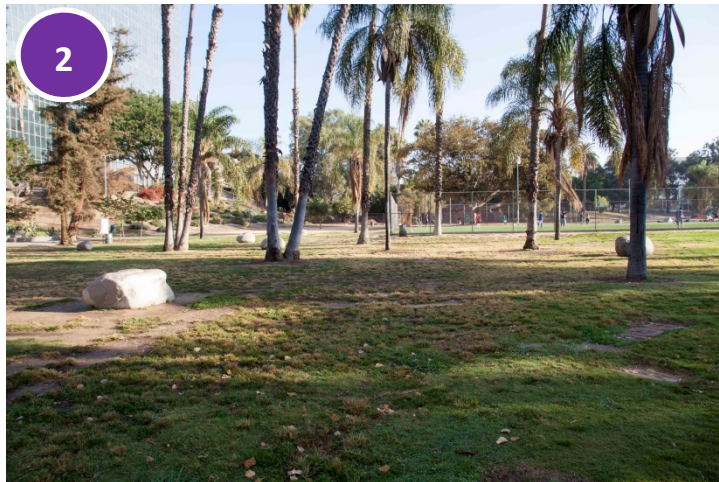
- Park is largely set below much of the grade of surrounding street
- Tight soils in the area may inhibit percolation
- Maintenance worker on site does not recall flooding ever being an issue at the park
- Park is generally used for recreational soccer, open space for neighboring schools
- Tree replacement will be avoided where possible, but may need to be considered since park contains a lot of older, established trees
 - Mature trees on site include a large Moreton Bay fig, Bohdi “Sacred” fig, and what maintenance worker called “monkey tree” – potentially Monkey Puzzle tree (*Araucaria araucana* on IUCN 2013 endangered tree list)
- There may be the potential for one or more Heritage trees at this site
- City Rec & Parks people would like to maintain existing operations as much as possible:
 - Construction phasing of BMP should be considered to minimize disruptions
 - Consider including beautification components as part of BMP design
- Some existing facilities resulted from public/private partnership – Nike soccer field and Carl’s Jr. skate park. Consider pursuing similar partnership for BMP project elements.



The bench area depicted in photo may be potential site for subsurface storage.



Tree replacements will need to be considered where avoidance is not possible. Large cones dropped by certain trees present hazards. Captured runoff reuse for year-round tree irrigation should also be considered for trees that must remain on site.



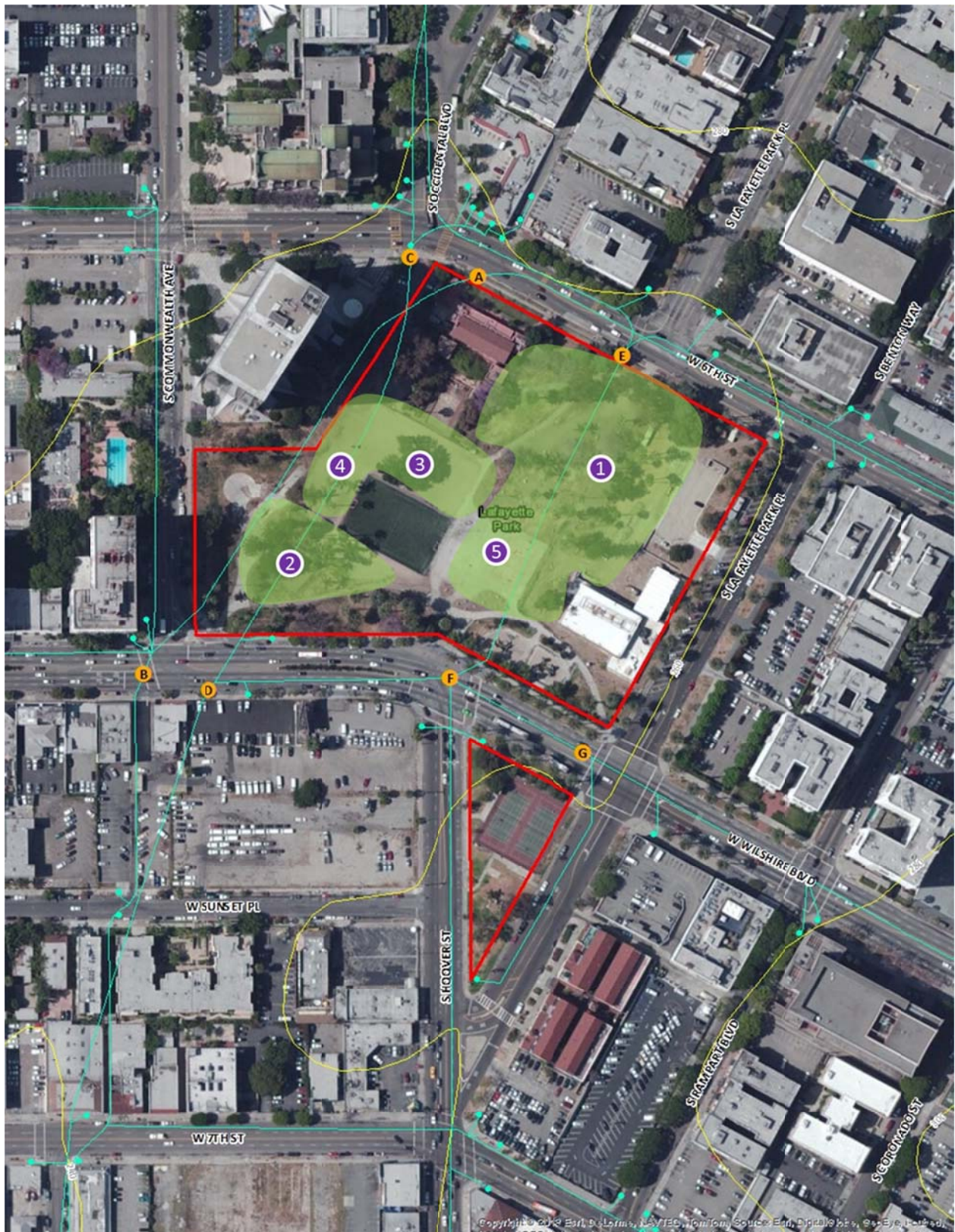
Large Moreton Bay fig on north side of soccer field. Artificial grass soccer field was constructed in 2006.



DG area also used as a soccer field.



Explore potential for BMPs beneath basketball courts. Solutions must be vetted with Rec & Parks.



Opportunity areas (highlighted) would likely include surface or below ground volumes/BMPs.

LA19: Queen Anne Recreation Center

Stop #2, 9:30AM

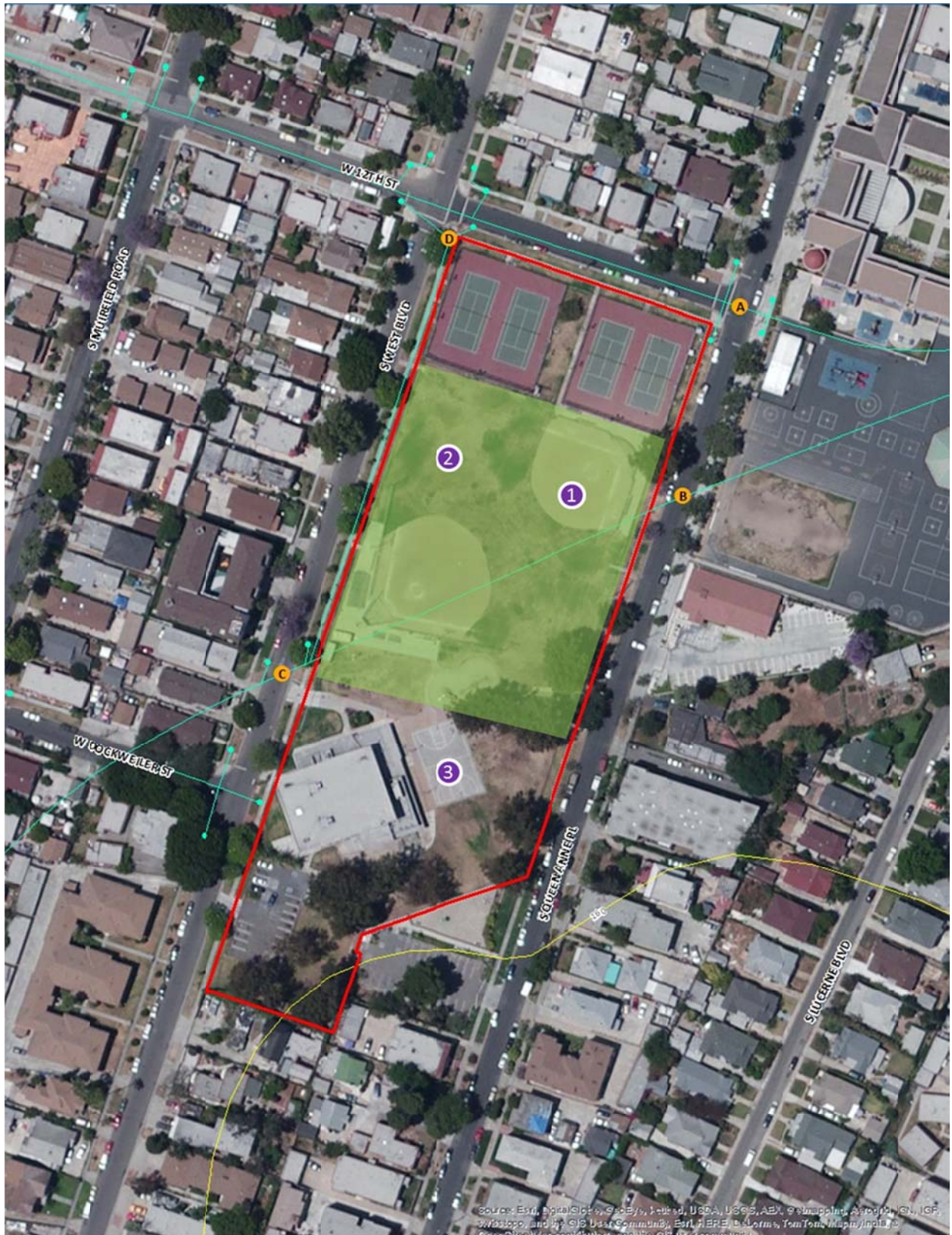
General:

- City previously initially identified this site as part of the metals IP, but storm drains are very deep so it was passed up for other non-pumping options
- Tree replacement will not be an issue for potential BMP footprint (with provisions for staging)
- Whole park area could logically be used for a buried asset BMP
- Construction could be phased so entire park is not out of commission during construction





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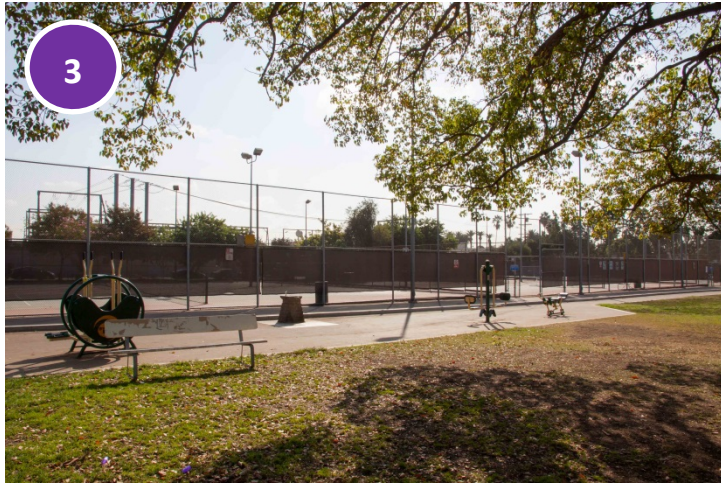
LA18: Poinsettia Park

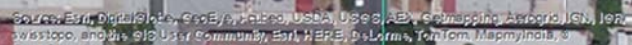
Stop #3, 10:10AM

General:

- Judging by nearby storm drain sizes and adjacent slopes, there may not be much watershed/drainage area upstream
- This park is located within the same sub-drainage area as Plummer Park, so careful review of double treating should occur
- To avoid a pump station, the tennis courts would likely have to be taken out/torn up since nearby storm drains are relatively deep
- Tree replacement may not be an issue as they are located around park perimeter







10

WH01: Plummer Park

Stop #4, 10:25AM

General:

- Plummer Park is just upstream of Poinsettia Park in sub-watershed, so careful review of double treating should occur.
- Could potentially take loads off of storm drain leading to Poinsettia Park
- Park does not include many large open spaces, but more smaller pockets of space dispersed throughout park
- Trees will be difficult to avoid
- BMP opportunity area (highlighted) should focus on north parking lot area for a buried asset
- May be able to reuse water as irrigation source throughout park (R²UFS)



North parking lot may be best location for buried BMP (looking east)

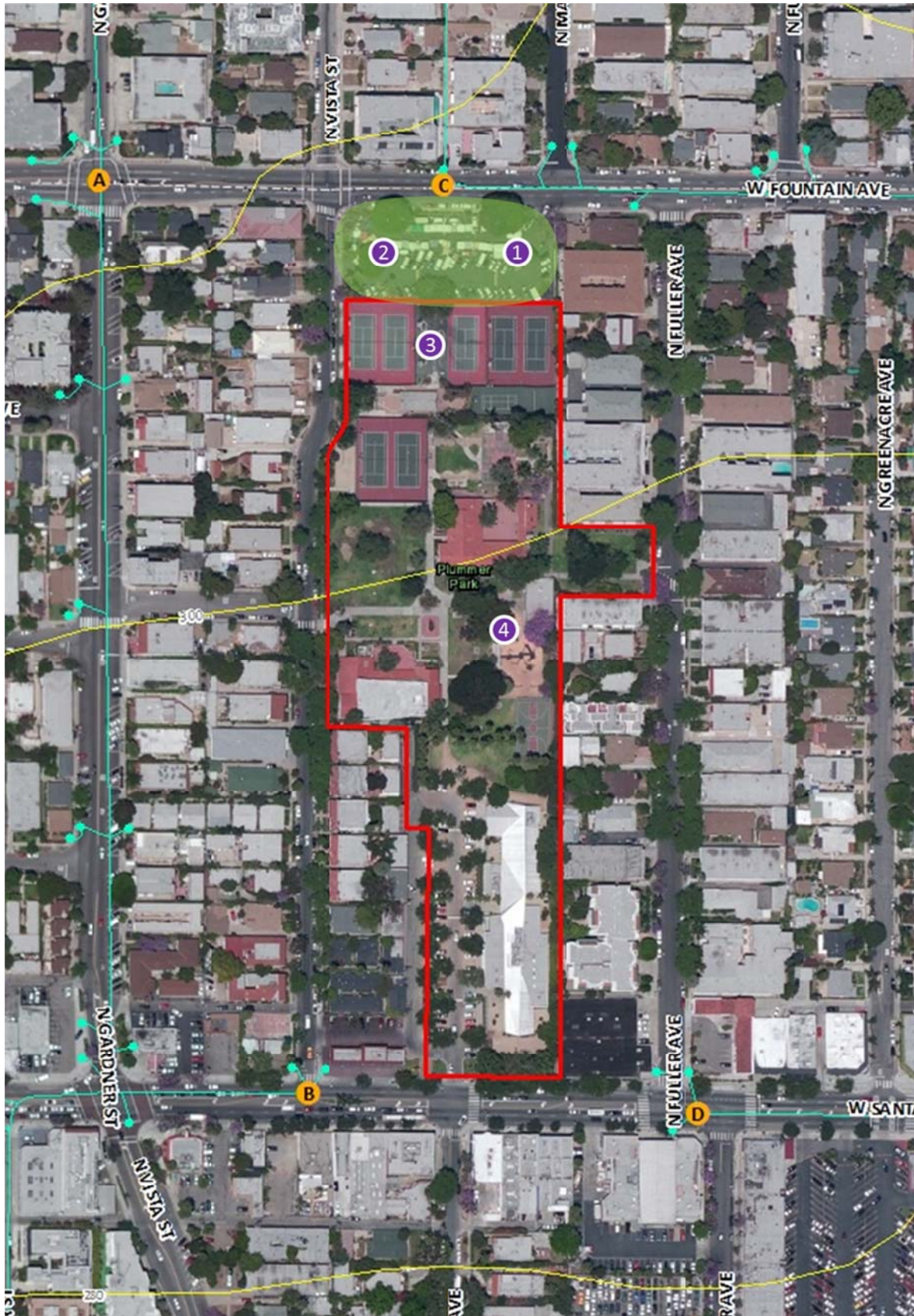


North parking lot (looking west)



Tennis courts near north parking lot





BH01: La Cienega Park

Stop #5, 11:00AM

General:

- Surrounding storm drains are large and relatively shallow
- Larger park area is set up above La Cienega Blvd
- This added elevation would need to be considered in pumping design
- Frank Fenton Field is at roughly the same elevation as adjacent street, but is surrounded by berm
- It is speculated that Sites characterized by tight soils
- Frank Fenton Field could potentially be a non-buried asset; could also reasonably contain a buried tank
- Area #4 on overall site map was identified as potentially a brownfield, but is well-situated to offer water quality benefits. May be viewed as a public-private partnership or improving a very visible corner that has needed improvements for some time.





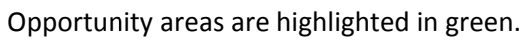
Frank Fenton Field



Frank Fenton Field



Frank Fenton Field



LA10: Rancho Park Golf Course

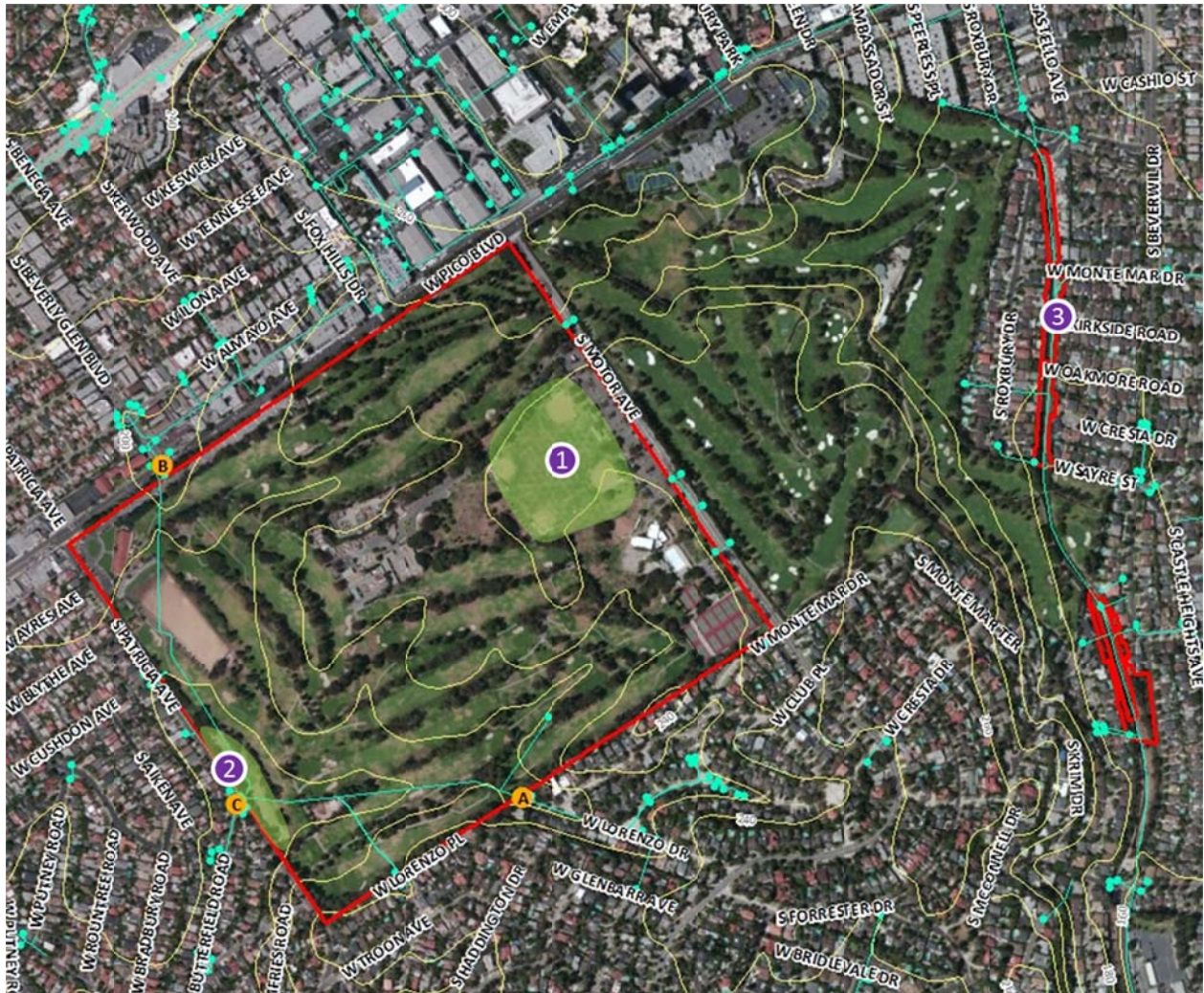
Stop #6, 11:50AM

General:

- Large open space area; few constraints to potential footprint areas
- BMP focus may be at small area on southwest edge of site
- Appears to be a staging and storage area for the golf course adjacent to where large storm drains come together







CC01: Culver Boulevard Median

Stop #7, 1:55PM

General:

- Potential area meandering swale along median as BMP
- Acknowledged that abandoned light rail may have left many buried unknowns in the median
- Resident feels that there may be potential for bioswale or other BMP implementation adjacent to median in the south portion of Culver Boulevard. They feel the street is too wide.

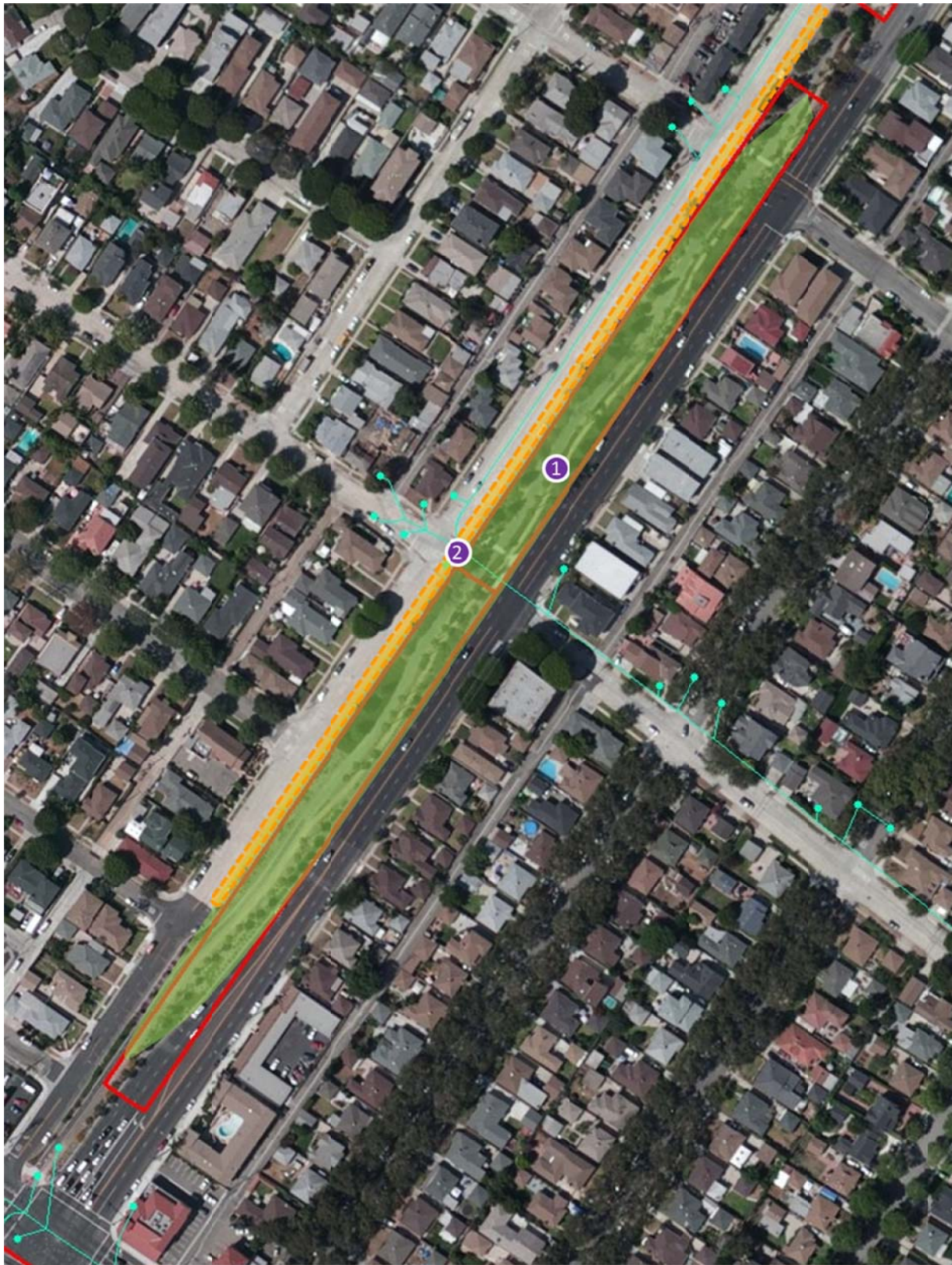




Culver Boulevard is viewed as too wide by some residents. (looking north)



Culver Boulevard is viewed as too wide by some residents. (looking south)



Two opportunity areas are highlighted in map above: Culver Blvd median (green) and wide parking lane (orange).

IG01: Edward Vincent Junior Park

Stop #8, 2:45PM

General:

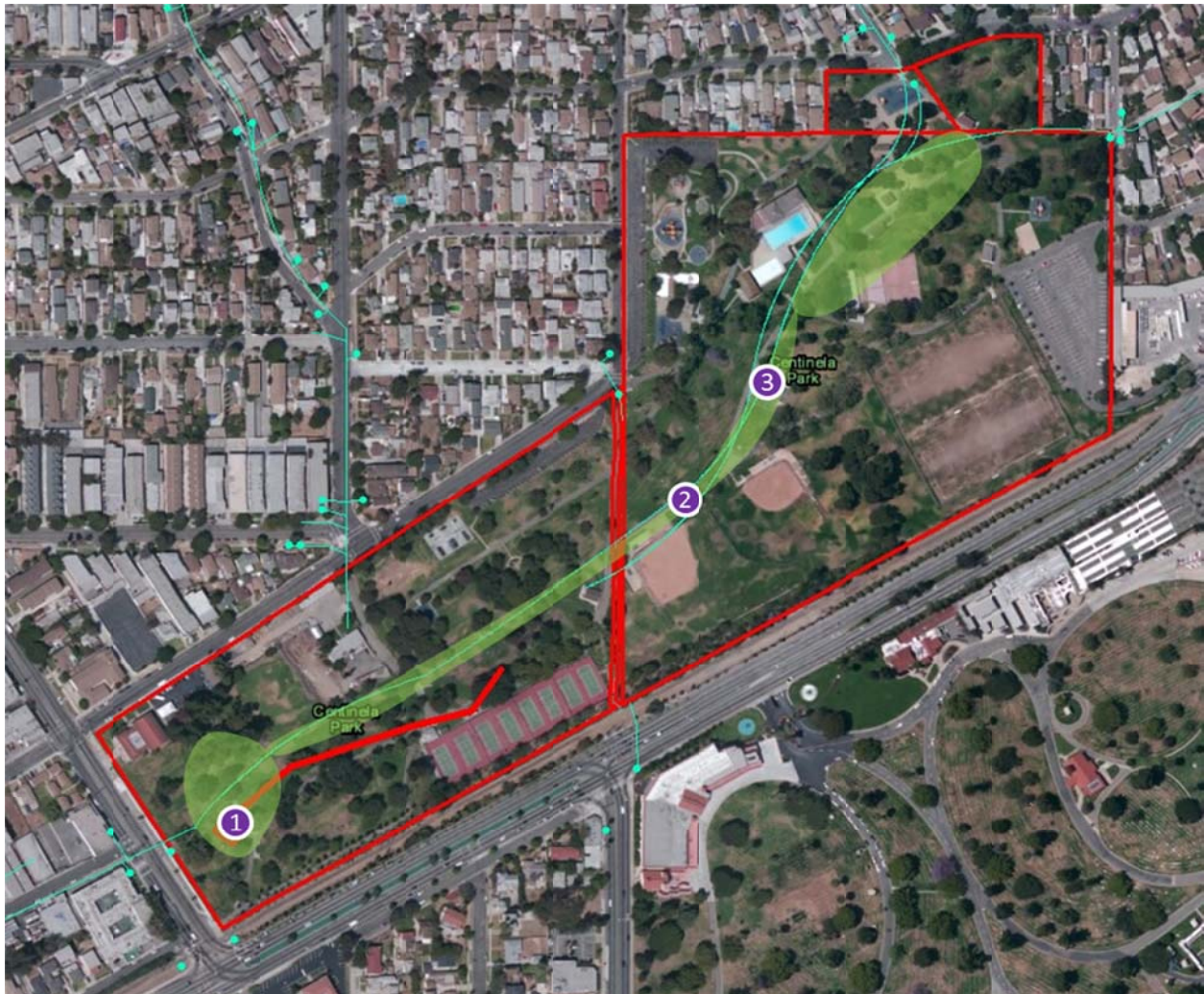
- Creek daylights at large opening in western end of the park
- Park area appears to follow a natural drainage (from east to west)
- There may be a question of park space ownership depending on footprint location: LA MTA vs. City of Inglewood at the southeast corner of the park
- City of Inglewood would like to see the large County's surfaced/daylighted storm drain in the southwest corner be a priority for BMP implementation
- The City of Inglewood would prefer if the recommended BMP opportunity area avoids disturbing developed features and mature trees within the proposed project site.



City would like to implement BMP at location of creek daylighting.







Opportunity areas highlighted would likely include surface BMP and potentially daylighting portions of the creek.

Summary Environmental Constraints: Ballona Creek Watershed Regional Projects

BH01 – La Cienega Park

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Construction at Fenton Field could affect historic Beverly Hills Water Treatment Plant No. 1 building; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **HAZ:** Parcel at NE corner of Olympic/La Cienega may have contamination (former Arco); may increase time for land acquisition (if applicable) and for site-specific CEQA compliance.
- **WQ:** Potential residual contamination could result in adverse groundwater quality if residual contamination is indeed present and if infiltration occurs above the contamination; may increase time for project design and site-specific CEQA compliance.
- **REC:** Temporary loss of recreational areas and long term seasonal loss of Fenton Field will require close coordination between the City of Beverly Hills and stakeholders to develop suitable mitigation options for addressing the temporary and seasonal loss of recreational uses. Increased site-specific CEQA compliance time.

CC04 - Culver Boulevard Median

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **HAZ:** Contamination from rail ROW may be present; may increase time for site-specific CEQA compliance.
- **WQ:** Potential residual contamination could result in adverse groundwater quality if residual contamination is present in the medians subsurface and if infiltration occurs above the contamination; may increase time for project design and site-specific CEQA compliance.
- **REC:** Temporary closure of median recreational features during construction, and potential relocation of bike and walking path along the median are likely to require close coordination between Culver City and stakeholders to develop suitable mitigation options. Increased site-specific CEQA compliance time.
- **TRA:** Temporary closure of median bike path and its potential relocation are likely to require close coordination between Culver City and stakeholders to develop suitable mitigation options for addressing impacts to the bike path on the median. Increased site-specific CEQA compliance time.

IG01 - Edward Vincent Junior Park

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **HAZ:** Residual contamination from former Gas Co site at Park may be present; may increase time for site-specific CEQA compliance.
- **WQ:** Potential residual contamination could result in adverse groundwater quality if residual contamination is indeed present and if infiltration occurs above the contamination; may increase time for project design and site-specific CEQA compliance.
- **REC:** Temporary closure of active and passive recreational uses, and possible relocation of active fields. Close coordination between City of Inglewood and stakeholders to develop mitigation. Increased site-specific CEQA compliance time.

LA05 - Lafayette Park

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **BIO:** Heritage tree (Firewheel Tree) along Wilshire border; may increase time for site-specific CEQA compliance.
- **CUL:** Construction at Lafayette Park could affect historic Felipe De Neve Library; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **NOI:** City LA has construction noise thresholds that may increase the length of time required for individual project approvals and CEQA compliance.
- **REC:** Temporary closure of the recreational uses within Lafayette Park is likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options. Increased site-specific CEQA compliance time.

LA12 – Rancho Park Golf Course

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **NOI:** City LA has construction noise thresholds that may increase the length of time required for individual project approvals and CEQA compliance.
- **REC:** Temporary closure of the recreational uses within Rancho Park and the golf course are likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options. Increased site-specific CEQA compliance time.

LA20 – Poinsettia Park

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **NOI:** City LA has construction noises threshold that may increase the length of time required for individual project approvals and CEQA compliance.
- **REC:** Temporary closure of the recreational uses within Poinsettia Park is likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options. Increased site-specific CEQA compliance time.

LA21 - Queen Anne Recreation Center

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **NOI:** City LA has construction noise thresholds that may increase the length of time required for individual project approvals and CEQA compliance.
- **REC:** Temporary closure of recreational uses within Queen Anne Recreation Center is likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options. Increased site-specific CEQA compliance time.

WH01 – Plummer Park

- **AQ:** Construction emissions in excess of thresholds; may increase time for site-specific CEQA compliance.
- **AQ:** Cumulative AQ impacts may increase time for site-specific CEQA compliance.
- **AQ:** Air pollutant concentrations from construction may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could disturb active nests (violation of Migratory Bird Treaty Act); may increase time for site-specific CEQA compliance.
- **BIO:** Tree removal could destroy protected trees; may increase time for site-specific CEQA compliance.
- **CUL:** Archeological resources may be present; should be addressed during site specific CEQA compliance.
- **CUL:** Paleontological resources may be present; should be addressed during site specific CEQA compliance.
- **REC:** Temporary closure of the north parking lots at Plummer Park will require close coordination between the City of West Hollywood and stakeholders to develop suitable mitigation options for addressing the temporary loss of park parking, temporary relocation of the farmers market, and to address construction issues associated with either overlapping or sequential construction of the master plan improvements and the water quality improvements. Increased site-specific CEQA compliance time.

**Initial Study/
Environmental Constraints Evaluation**

For

**the Eight Recommended Regional Structural Projects
within the Ballona Creek Watershed**

DRAFT

November 2014



City of Los Angeles



**Bureau of Engineering
Watershed Protection
Division**

1.0 INTRODUCTION

National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit (MS4 Permit) Order No. R4-2012-0175 establishes the waste discharge requirements for stormwater and non-stormwater discharges within the watersheds of Los Angeles County. This MS4 Permit was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), on November 8, 2012, and became effective on December 28, 2012.

The MS4 Permit includes provisions that allow permittees the flexibility to customize their stormwater programs to achieve compliance with certain receiving water limitations and water quality based effluent limits over time. Specifically, permittees may voluntarily choose to develop and implement an Enhanced Watershed Management Program (Program). The Program includes prioritization of water-quality issues, identification of implementation strategies, control measures, and Best Management Practices (BMPs) sufficient to meet pertinent standards, integrated water-quality monitoring, and opportunity for stakeholder input. Through the Program, permittees will implement projects to improve water quality, and also have incentives to evaluate and, where feasible, implement regional projects that retain all non-stormwater runoff and all stormwater runoff from the 85th percentile, 24-hour storm event for the drainage area tributary to those projects.

Municipalities, non-governmental organizations and community stakeholders throughout the County of Los Angeles are working collaboratively to develop Enhanced Watershed Management Plans for each of LA's five watersheds - Ballona Creek, Dominguez Channel, Marina Del Rey, Santa Monica Bay and Upper Los Angeles River. The objectives of the Enhanced Watershed Management Plans (or EWMPs) are to comply with water quality mandates, improve the quality of our rivers, creeks and beaches, and address current and future regional water supply issues.

Each of the five watersheds has a Watershed Management Group that meets on a regular basis. The goal of each Watershed Management Group is to develop an EWMP for their specific watershed. Each EWMP will identify current and future multi-benefit projects that will improve water quality, promote water conservation, enhance recreational opportunities, manage flood risk, improve local aesthetics, and support public education opportunities. Each EWMP will include water quality priorities, watershed control measures, reasonable assurance analysis, the scheduling of projects and the monitoring, assessment and adaptive management of projects. The Ballona Creek Watershed Management Group has developed a list of eight very high priority Regional Projects for implementation, which has been submitted to the Regional Water Quality Control Board for approval.

The Los Angeles County Flood Control District is in the process of preparing a Program EIR (Program EIR) to address the environmental impacts associated with implementing EWMPs within 12 watersheds in the MS4 permit coverage area. One of these watersheds is the Ballona Creek Watershed. The Program EIR will focus on potential effects that could result from implementation of the projects and management actions identified in each EWMP, and would assess the physical changes to the environment that would likely result from the construction and operation of EWMP projects, including direct, indirect, and cumulative impacts.

The purpose of this environmental constraints evaluation is to identify potential site specific environmental constraints associated with each of the recommended eight structural Regional Projects within the Ballona Creek Watershed, including increased time requirements to address issues, obtain project approvals (including CEQA compliance).

Environmental Constraints of Regional Projects within the Ballona Creek Watershed	1	November, 2014
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2.0 PROJECT DESCRIPTION

2.1 Project Location

2.1.1 Regional Setting

The Ballona Creek Watershed is located on the Los Angeles Coastal Plain south of the Santa Monica Mountains. The watershed encompasses portions of the City of Beverly Hills, Culver City, and Inglewood, Los Angeles, and West Hollywood, as well as the County of Los Angeles (see Figure 1). The Ballona Creek Watershed is largely urbanized.

2.1.2 Project Setting

Eight structural Regional Projects are recommended for implementation, and the general settings at each location, are as follows:

- BH01 - La Cienega Park in the City of Beverly Hills. The site includes a community center, active recreational fields (baseball and soccer), track, tennis courts, playground, open space, and community center. BH01 also includes a small vacant parcel located at the northwest corner of Olympic Boulevard and La Cienega Boulevard. Frank Fenton field is located across (La Cienega Boulevard) from the main park site. Mature trees are located at both sites. Surrounding land uses include single and multi-family residential units. The operating hours for the park are 6 a.m. - 10 p.m. daily.
- CC04 - Culver Boulevard Median in the Culver City. The median landscaping includes mature trees, and is developed with a bike and walking path. To the north of the median, Culver Boulevard serves local residents (through traffic in both directions occurs on Culver Boulevard south of the median). Surrounding land uses are primarily single homes.
- IG01 - Edward Vincent Junior Park in the City of Inglewood. The site includes tennis courts, basketball courts, football/soccer fields, playgrounds, and the Veterans Memorial Building with various community amenities. Mature trees are present at the site. Surrounding land uses include single and multi-family residential units. The operating hours for the park are Monday-Friday: 8:00 a.m. – 5:00 p.m.
- LA05 - Lafayette Park in the Wilshire community of the City of Los Angeles. The site includes a multi-purpose community center, auditorium, skate park, basketball courts (lighted/outdoor), children’s play area, community room, picnic tables, soccer field (lighted), tennis courts (lighted). Landscaping includes mature trees. Surrounding land uses are primarily commercial, but the Bryson apartments are located across Lafayette Park Place. In addition, the Felipe De Neve Library is located along the northwestern portion of the site. The operating hours for the community center are Monday - Friday: 8:00 a.m. - 9:00 p.m., and Saturday - Sunday: 8:00 a.m. - 8:00 p.m.
- LA12 – Rancho Park Golf Course in the West Los Angeles community of the City of Los Angeles. The site includes a landscaped golf course, recreational center, baseball fields, and mature trees along the periphery. Surrounding land uses include single-family homes to the south, and commercial uses along Pico Boulevard. The operating hours for the park are Monday: 8:00 a.m. to 10:00 p.m., and Tuesday - Sunday: Sunrise - 10:00 p.m.
- LA20 – Poinsettia Park in the Hollywood community of the City of Los Angeles. The site includes a recreation center, baseball diamond, basketball courts, children’s play area, handball courts, indoor gym, and tennis courts. Mature trees are located along the periphery. Surrounding

land uses include single-family and multi-family residences, and an electrical substation. The operating hours for the recreation center are Monday - Friday: 10:00 a.m. - 10:30 p.m., Saturday: 9:00 a.m. - 7:00 p.m.; and Sunday: 10:00 p.m. - 6:00 p.m.

- LA21 - Queen Anne Recreation Center in the in Wilshire community of the City of Los Angeles. The site includes an auditorium, barbecue pits, baseball diamond, basketball courts, children's play area, picnic tables, restrooms, and tennis courts. Mature trees are located along the periphery. Surrounding land uses include single- and multi-family residences, and an elementary school. The operating hours for the recreation center are Monday - Friday: 9:00a.m. - 8:00 p.m., Saturday: 9:00 a.m. - 3:00 p.m.; and is closed on Sundays.
- WH01 – Plummer Park located in the City of West Hollywood. The site includes tennis courts, a basketball court, children's play area, dog play area, and the Plummer Park Community Center. In addition, the Helen Albert Farmers' Market operates once a week at the Park's northern parking lot. Mature trees are located throughout the park and along the northern parking lot. The operating hours for the park are: 6:00 am - 10:00 p.m. daily, and the Farmer's market operates every Monday from 9:00 a.m. - 2:00 p.m. at the park's north parking lot. Surrounding land uses include single- and multi-family residences. The site is undergoing a master plan review process.

2.2 Goals and Objectives

The purpose of the Regional Projects is to improve water quality and help the Cities and County comply with the MS4 permit discharge requirements for stormwater and non-stormwater discharges within the Ballona Creek Watershed.

2.3 Description of Proposed Project

The Regional Projects are defined by the MS4 Permit as multi-benefit regional projects that, wherever feasible, retain all non-stormwater runoff and all stormwater runoff from the 85th percentile, 24-hour storm event for the contributing drainage area, while also achieving other benefits such as flood control and/or water supply. The Regional Projects proposed for the eight Regional Project sites within the Ballona Creek Watershed would include one or more of the following at each site:

- Infiltration Projects, that could include surface infiltration devices (infiltration basins, infiltration trenches, infiltration galleries, and bio-retention approaches.
- Multi-Directional Infiltration Projects that could include devices such as dry wells, and/or hybrid bio-retention and dry wells.
- Detention Basins that promote settling out of larger particles.
- Capture and Use Projects such as underground cisterns, storage facilities to make captured water available for uses such as irrigation.

The Regional Projects would install and operate infiltrations structures, detention basins, and/or capture and use structures at eight locations (seven parks and a median) within the Ballona Creek Watershed, which are described above in the Project Setting. The infiltrations structures, detention basins, and/or capture and use structures would likely be located underground at each of the park sites, with possible bio-retention approach at the Culver Boulevard median, and portions of Edward Vincent Jr. Park and La Cienega Park.

In addition, accessory improvements would be required at each Regional Project site to make connections with nearby storm drains, as well as other improvement such as wells, pump stations, and electrical connections and controls.

Environmental Constraints of Regional Projects within the Ballona Creek Watershed	3	November, 2014
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The water quality improvements proposed at each of the Regional Project sites within the Ballona Creek Watershed are as follows:

- BH01 - La Cienega Park: Buried Infiltration structure, buried storage basin, and/or surface bio-retention.
- CC04 - Culver Boulevard Median: Surface bio-retention.
- IG01 - Edward Vincent Junior Park: Surface bio-retention.
- LA05 - Lafayette Park: Buried Infiltration structures and/or buried storage basins.
- LA12 – Rancho Park Golf Course: Buried Infiltration structures and/or buried storage basins.
- LA20 – Poinsettia Park: Buried Infiltration structure and/or buried storage basin.
- LA21 - Queen Anne Recreation Center: Buried Infiltration structure and/or buried storage basin.
- WH01 – Plummer Park: Buried Infiltration structure and/or buried storage basin.

2.4 Regional Project Construction

Construction of each of the Regional Projects is expected to take between 12-18 months, and would involve mobilization (of materials and equipment), excavation and shoring, haul away of soils, construction of the infiltration, detention, or capture and use structure (likely to be cast-in-place concrete), accessory improvements such as storm drain connections, equipment installation, backfilling, and surface restoration. Due to the large quantities of runoff that would be infiltrated, detained, or captured, the subsurface structures would likely require substantial subsurface portions of the identified sites.

2.5 Regional Project Operations

Once the Regional Projects are completed and commissioned, they would operate automatically, although their operation would be monitored and adjustments made on an as-needed basis, including during wet weather. The majority of the Regional Project would have subsurface components and their operation would not be detectible or apparent at the site surface.

Regional Projects that utilize approaches at the site surfaces (such as bio-retention) could periodically fill with retained runoff, and preclude other uses of those areas until percolation has been completed and the areas dry enough to support other uses.

2.6 Anticipated Permits and Approvals

Approvals or permits from the following agencies are expected to be required:

- City of Beverly Hills
- Culver City
- City of Inglewood
- City of Los Angeles (Board of Public Works, Department of Recreation and Parks, Department of Water and Power, Department of Transportation, etc.)
- City of West Hollywood
- County of Los Angeles (Los Angeles County Flood Control District)
- State and Regional Water Quality Control Boards
- Others?

3.0 Initial Study Checklist

Potential environmental constraints associated with the Regional Projects are addressed in the Initial Study Checklist and detailed discussions are provided below.

Environmental Checklist Form

1. Project Title:	Ballona Creek Regional Projects
2. Lead Agency Name and Address:	Varies depending on jurisdiction of each Regional Project (City of Beverly Hills, Culver City, City of Los Angeles, City of Inglewood, City of West Los Angeles)
3. Contact Person and Phone Number:	Jim Rasmus, Black and Veatch (858) 945-8675
4. Project Location:	Ballona Creek Watershed (Beverly Hills, Culver City, Inglewood, Los Angeles, West Los Angeles)
5. Project Sponsor's Name and Address:	Bureau of Sanitation Watershed Protection Division 1149 S. Broadway, 10th Floor Los Angeles, CA 90015
6. General Plan Designations:	Varies (Open Space)
7. Zoning:	Varies (OS-1XL)
8. Description of Project:	The proposed Project consists of installation and operation of runoff storage and/or treatment facilities at eight (8) locations within the Ballona Creek Watershed. Facility options include underground stormwater and runoff buried detention facilities, underground infiltration facilities, and surface treatment features. Ancillary improvements, including connector pipelines to nearby storm drains, and/or pump stations or wet wells would be included.

Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by the Regional Projects (i.e., the proposed Project would involve environmental constraints, as indicated by the checklist on the following pages).

	Aesthetics		Agriculture and Forest Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources		Geology/Soils
	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials	X	Hydrology/Water Quality
	Land Use/Planning		Mineral Resources	X	Noise
	Population/Housing		Public Services	X	Recreation
X	Transportation/Traffic		Utilities/Service Systems		Mandatory Findings of Significance

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS.	Would the project:				
a.	Have a substantial adverse effect on a scenic vista?			X	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?			X	
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Discussion:

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista generally provides focal views of objects, settings, or features of visual interest; or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. Substantial constraints occur if the Regional Projects introduce incompatible visual elements within a field of view containing a scenic vista or substantially alters a view of a scenic vista.

No Environmental Constraints.

- BH01 - La Cienega Park. La Cienega Park is located in an urbanized portion of the City of Beverly Hills and is not located within a Scenic Vista. Further, the improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists.
- CC04 - Culver Boulevard Median. The Culver Boulevard median is located along Culver Boulevard in an urbanized portion of Culver City, and is not located within a Scenic Vista. The improvements at this site could occur at the surface within the existing median, or a slightly expanded median (to the west); however, the surface improvements would not extend higher than existing landscaping.
- IG01 - Edward Vincent Junior Park. Edward Vincent Jr. Park is located between a residential area and Florence Avenue in the City of Inglewood, and is not located within a Scenic Vista. The improvements at this site could occur at the surface within the park boundaries. However, the surface improvements would not extend substantially higher than existing landforms.

- LA05 - Lafayette Park. Lafayette Park is located in an urbanized area within the Wilshire Community Plan area in the City of Los Angeles. This park is not located within a Scenic Vista. Further, the improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists.
- LA12 – Rancho Park Golf Course. Rancho Park Golf Course is located amidst a residential area within the West Los Angeles area in the City of Los Angeles. This golf course is not located within a Scenic Vista. The improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists.
- LA20 – Poinsettia Park. Poinsettia Park is located in a mixed residential area with a nearby industrial use (electrical substation) within the Hollywood community in the City of Los Angeles. This park is not located within a Scenic Vista. The improvements at this site would likely be buried and surface features would be restored to the same or better condition than currently exists.
- LA21 - Queen Anne Recreation Center. The Queen Anne Recreation Center site is located in a mixed residential area within the Wilshire community in the City of Los Angeles. This park is not located within a Scenic Vista. The improvements at this site would likely be buried and surface features would be restored to the same or better condition than currently exists.
- WH01 – Plummer Park. Plummer Park site is located in a mixed residential area within the City of West Hollywood. This park is not located within a Scenic Vista. The improvements at this site would likely be buried and surface features would be restored to the same or better condition than currently exists.

b./c. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

No Environmental Constraints. The Regional Project improvements would not have the potential to damage scenic resources within a state scenic highway because none of the activities would be located near an eligible or designated state scenic highway. The California Department of Transportation (Caltrans) is responsible for the official nomination and designation of eligible scenic highways. The nearest officially designated state scenic highway (State Highway 2, from approximately three miles north of Interstate [I]-210 in La Cañada to the San Bernardino County Line) (California Department of Transportation, 2013) is located over 13 miles northeast of the nearest Regional Project (WH01 – Plummer Park).

The nearest eligible state scenic highway (State Highway 1, from State Highway 19 near Long Beach to I-5 south of San Juan Capistrano) (California Department of Transportation, 2013) is approximately 17 miles southeast of the nearest Regional Project (IG01 – Edward Vincent Jr. Park). None of the Regional Projects are visible from either of these State Scenic Highways; therefore, the Regional Projects would not adversely affect the quality of the scenic views from these locations.

In addition, the following summarizes specific details regarding scenic resources at each Regional Project site:

- BH01 - La Cienega Park. The only street in the City of Beverly Hills that is designated as a local scenic highway is Santa Monica Boulevard, which is located approximately 1.6 miles to the northwest of La Cienega Park. The buried water quality improvements at La Cienega Park would not be visible, and the surface would be restored. Bio-retention surface improvements are not expected to be inconsistent with the park setting. The improvements would not fall within the viewshed of a scenic highway, and would not adversely affect the park setting. In addition, the City's General Plan has established a policy to protect scenic views from public places (Open Space Element, Policy OS 6.1). The water quality improvements at the La Cienega Park would be subsurface and out of site, or would be located at the surface and consistent with a park setting (bio-retention features). As such, the improvements at La Cienega Park are not expected to result in adverse effects to scenic resources.

It should be noted that the headquarters for the Academy of Motion Picture Arts and Sciences occupies the building just north of Fenton Field. The building, the former Beverly Hills Water Treatment Plant No. 1 meets the City of Beverly Hill's criteria for designation as a local Landmark, as required in the City's Historic Preservation Ordinance, and is considered historic (Ostashay & Associates Consulting, 2014). The water quality improvements would not occur on the same site as the Beverly Hills Water Treatment Plant No. 1 building, and would not require removal or physical changes to the historic building. As a consequence, the water quality improvements at the La Cienega Park are not expected to adversely affect a historic resource within a scenic highway corridor.

- CC04 - Culver Boulevard Median. The Culver City General Plan establishes a policy to protect view corridors (Objective 6 of Open Space Element). The Open Space Element also allows for the abandoned rail right-of-way median (southwest of Elenda Street to be used as a linear park, including landscaping, bike and jogging paths, and utilities and infrastructure. The existing median is landscaped and includes a walking and bike path. The water quality improvements at this site would likely be bio retention features that would not be visually inconsistent with existing landscaping along the median. The water quality improvements could also result in slightly expanded median (to the west); however, the surface improvements would not extend higher than existing landscaping and would not result in a substantive adverse impact to scenic resources or visual character of the project area.
- IG01 - Edward Vincent Junior Park. The Edward Vincent Jr. Park is landscaped and includes various active and passive recreational uses. The eastern section of Florence Avenue between Hillcrest Boulevard and the eastern City limit consists of diverse commercial, government, institutional, religious, and recreation (park) uses. Important resources along the eastern section which could be considered City landmarks include the Saint John Chrysostom Church, the Inglewood Park Cemetery, and the Edward Vincent Jr. Park (City of Inglewood General Plan Update Technical Background Report, 2006). Edward Vincent Junior Park is considered to be open space; however, no significant trees or rock outcroppings are present. The improvements at this site could occur at the surface within the

park boundaries; and would be consistent with a park setting. Therefore, the water quality improvements at Edward Vincent Jr. Park would not result in substantive impacts to scenic resources or visual character of the project area.

- LA05 - Lafayette Park. Lafayette Park is landscaped, and contains active and passive recreational uses. Trees are located throughout the park. This park is not located along a locally designated scenic highway. Further, because the improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists, significant impacts to scenic resources would not occur.

It should be noted that the Felipe De Neve Library, which is a historic resource (Los Angeles Historic Cultural Monument No. 452), is located adjacent to and north of the project site. The water quality improvements would not require removal or physical changes to the library, and as a consequence, are not expected to adversely affect a historic resource within a scenic highway corridor or adversely affect the visual character of the project area.

- LA12 – Rancho Park Golf Course. The Rancho Park Golf Course is largely landscaped as a golf course, but does contain baseball fields at the northeast side. Wilshire Boulevard, Santa Monica Boulevard, and Avenue of the Stars are designated as Scenic Highways in the West Los Angeles Community Plan; however, the golf course is not located within the associated scenic corridors. Because the water quality improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists, significant impacts to scenic resources or visual character of the project area are not anticipated.
- LA20 – Poinsettia Park. Poinsettia Park is landscaped and developed with active recreational features. No locally designated scenic highways are located along or near this site. Because the water quality improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists, significant impacts to scenic resources or visual character of the project area are not anticipated.
- LA21 - Queen Anne Recreation Center. The Queen Anne Recreation Center site is landscaped and developed with active and passive recreational features. Some trees are located onsite away from the active recreational fields. Because the water quality improvements at this site would likely be buried and surface features restored to the same or better condition than currently exists, significant impacts to scenic resources or visual character of the project area are not anticipated.
- WH01 – Plummer Park. Plummer Park site is a well-developed park with smaller green-spaces dispersed throughout the site and a large parking lot at the north end. Because the water quality improvements at this site would likely be buried at the north end and surface features restored to the same or better condition than currently exists, significant impacts to scenic resources or visual character of the project area are not anticipated.

- d. **Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

No Environmental Constraints. The Regional Projects would involve the placement of buried infiltration or storage structures, with surface features restored. Exterior lighting of such structures are not anticipated. Water quality improvements such as bio-retention of runoff and stormwater would be place at ground level. Some low intensity security lighting could be included; however, such lighting would not be intrusive and would not represent a substantial source of new lighting. As a consequence, adverse impacts related to new lighting sources are not anticipated.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	AGRICULTURE AND FOREST RESOURCES. In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				X
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?				X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion:

- a. **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Environmental Constraints. The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) develops maps and statistical data to be used for analyzing impacts on California's agricultural resources. The FMMP categorizes agricultural land according to soil quality and irrigation status; the best quality land is identified as Prime Farmland. According to the FMMP, the proposed Regional Project sites are located in areas designated as Urban and Built-Up Land, which is described as land occupied by structures that has a variety of uses including industrial, commercial, institutional facilities, railroad or other transportation yards (California Department of Conservation, 2010 and 2011b). There is no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance in the vicinity of the Regional Project sites. Therefore, there would be no impact to designated farmland.

- b. **Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?**

No Environmental Constraints. The Regional Project sites are zoned for open space or developed as existing parks, and there are no agricultural zoning designations or agricultural uses within the Project limits or adjacent areas. The Williamson Act applies to parcels consisting of at least 20 acres of Prime Farmland or at least 40 acres of land not designated as Prime Farmland. None of the Regional Project sites are located within a Prime Farmland designation, or on areas consisting of more than 40 acres of farmland (California Department of Conservation, 2010 and 2011b). No Williamson Act contracts apply to the Regional Project sites. Therefore, the Regional Projects would not have an impact on agricultural zoning or a Williamson Act contract.

- c. **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?**

No Environmental Constraints. The Regional Project sites are zoned for open space or used for parks, and therefore would not conflict with existing zoning for, or cause

rezoning of, forest land or timberland. Therefore, the Regional Projects would have no impact on land zoned for forest land.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Environmental Constraints. The Regional Projects would occur at existing park sites which have no forest land. The Regional Projects would not result in the loss of forest land or conversion of forest land to non-forest use.

e. Would the project involve other changes in the existing environment that, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Environmental Constraints. As discussed above, no farmland or forest land is located on the Regional Project sites. Therefore, the Regional Projects would not involve the disruption or damage of the existing environment that would result in the loss of Farmland to non-agricultural use or conversion of forest land to non-forest use.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	AIR QUALITY. When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	X			
d.	Expose sensitive receptors to substantial pollutant concentrations?	X			
e.	Create objectionable odors affecting a substantial number of people?			X	

Discussion:

a. Would the project conflict with or obstruct implementation of the applicable air quality plans?

No Environmental Constraints. The Regional Project sites are located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for administering the Air Quality Management Plan (AQMP) for the Basin, which is a comprehensive air pollution control program for attaining state and federal ambient air quality standards. The Cities in which the Regional Project sites would occur have each adopted an Air Quality Element as part of their General Plan. The Air Quality Elements contains policies and goals for attaining state and federal air quality standards, while continuing economic growth, and includes implementation strategies for local programs contained in the AQMP. A significant impact could occur if the proposed project is inconsistent with the AQMP or the applicable General Plan.

The Regional Projects would place water quality improvements below each of the sites or at their surface, and would not require permanent changes in uses of the parks (or median). Rather, the Regional projects are deemed to be consistent with the planned and existing uses at each site and with the applicable general plan. Therefore, the Regional Projects are not expected to conflict with or obstruct implementation of the applicable air quality plan and no impact is anticipated.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Some Environmental Constraints. Construction of the Regional Projects would require excavation of portions of each site for either the placement of subsurface storage and infiltration structures, or surface improvements. In addition, construction would be required to make connections with existing storm drains, as well as creation of accessory facilities such as subsurface pump stations or wet wells. The South Coast Air Quality Management District (SCAQMD) has established thresholds of significance for criteria pollutants generated during construction and operation, and a significant impact would occur if the Regional Projects result in construction or operational emissions that exceed the thresholds. Construction is likely to require heavy equipment such as loaders, and excavators, and soil would require export from the sites. As a consequence, there is a possibility for construction emissions to exceed the SCAQMD significance thresholds, even with mitigation, depending on the construction phasing and schedule. Although such exceedances would not represent a substantial environmental constraint to the project, they would likely have the effect of increasing the length of time required for individual project approvals by requiring Mitigated Negative Declarations or Environmental Impact Reports for CEQA compliance. There is also the potential for the applicable decision-making body to determine that the benefits of an individual Regional Project do not override any associated significant impacts (including impacts to air quality), and therefore do not approve the project. However, this potential is considered to be minimal given the need for the Regional Projects and to comply with the MS4 permit requirements.

Operation of the proposed Project would occur either passively, or if pumping is required, would not likely utilize a substantial amount of energy or require more than nominal operational activities, and therefore, are not likely to result in emission in excess of the SCAQMD significance thresholds for operation. Therefore, operation of the Regional Projects would not likely pose environmental constraints.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Some Environmental Constraints. Construction of the Regional projects could result in emissions that exceed SCAQMD significance thresholds, and pose constraints related to individual Regional Project approval, as discussed above. Construction of the Regional Projects, in conjunction with construction of other water quality and related improvements, could result in cumulative air quality impacts. Cumulative impacts would be addressed as part of the County's Program EIR or in site specific environmental compliance documentation (under the California Quality Act) and would pose the same environmental constraint as described above under Checklist Item III.b.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Some Environmental Constraints. As discussed above, construction of the Regional projects could result in emissions that exceeds SCAQMD significance thresholds. Many of the Regional Projects are located in close proximity to residences, which are considered to be sensitive receptors. The SCAQMD has established localized significance thresholds (LST) to address the impacts that pollutant concentrations could have on nearby receptors. There is a potential for construction to result in emissions in excess of the applicable LSTs, which would have the effect of increasing the length of time required for individual project approvals for CEQA compliance.

e. **Would the project create objectionable odors affecting a substantial number of people?**

No Environmental Constraints. Construction of the Regional Projects would result in some odors associated with diesel emissions from construction equipment. Diesel odors are common in urbanized environments, and during project construction, would be temporary and localized, and not expected to result in substantial odor impacts.

Air emissions, including odors, during operation are anticipated to be absent or minimal, as surface water would not be stagnant, and storage and infiltration units would be located underground. Therefore, operation of the Regional Projects are not expected to result in substantial odors.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	BIOLOGICAL RESOURCES. Would the project:				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?				X

Discussion:

- a. **Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

No Environmental Constraints. No candidate, sensitive, or special-status species are known to occur on the Regional Project sites. Sites LA05, LA20, LA21, and WH01 are located within the USGS Hollywood Quadrangle; sites LA12 and CC04 in the Beverly Hills quadrangle, and portions of site BH in both quadrangles. Federal and state listed threatened and endangered species are found in the Beverly Hills and Hollywood Quadrangles (CNDDDB, 2014); however it is very unlikely that such habitat existing at any of the Regional Project sites, as those sites are all developed and actively used urban recreational areas. In addition, there are no Significant Ecological Areas (SEAs) in the vicinity of the Regional Project sites (LA County, 2014).

- b. **Would the project have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

No Environmental Constraints. There is no riparian habitat or wetlands located at any of the Regional Project sites or the immediate vicinity, as all of the sites are developed are recreational areas. IG01 had an existing drainage feature onsite; however, this drainage is lined with concrete and is devoid of riparian habitat. Each Regional Project site is designated in its respective general plan as recreation, open space, or other public use. In addition, no SEAs are located in the vicinity of the Regional Project sites.

- c. **Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Environmental Constraints. There is no riparian habitat located at any of the Regional Project sites or the immediate vicinity, as all of the sites are developed are recreational areas (see discussion above for Checklist Item IV.b.).

- d. **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?**

Some Environmental Constraints. There are no known terrestrial migration corridors within the vicinities of the Regional Project sites. The sites are located in urban areas, and are not connected with other open space areas via undeveloped or natural corridors. None of the Regional Project sites have water courses that can be used by migratory fish. Therefore, the Regional Projects would not interfere with wildlife migration.

The Regional Project sites include landscaped open space areas, including trees that could be used as nesting sites. Impacts to migratory birds and active nests are prohibited under the Federal Migratory Bird Treaty Act (MBTA), 50 C.F.R. Part 10, and Sections 3500 through 3705 of the California Fish and Game Code protect most

migratory bird species and active nests from harm or destruction. Nearly all native North American bird species are on the MBTA list. The nesting season varies according to species, but is generally February 15th through August 15th for most birds and January 31st through September 1st for raptors. If tree and vegetation removal would occur during nesting months at any Regional Project site, a confirmation bird survey at each of the sites should be performed to prevent disturbance of active nests. Such surveys are standard mitigation applied during site specific environmental documentation. The requirements for bird surveys are not expected to result in substantial environmental constraints, but could result in additional time requirements for CEQA compliance.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Some Environmental Constraints. The Regional Projects would be located in the City of Beverly Hills (BH01), Culver City (CC04), City of Inglewood (IG01), City of Los Angeles (LA05, LA12, LA20, and LA21), and the City of West Hollywood (WH01). Each municipality has established various requirements for tree protection.

The City of Beverly Hills protects the following trees, regardless of their location (public or private property):

- Big Leaf Maple,
- California Alder,
- Foothill Ash,
- Arizona Ash,
- Southern California Black Walnut,
- California Juniper,
- California Sycamore,
- Fremont Cottonwood,
- Black Cottonwood,
- Coast Live Oak,
- Blue Oak,
- Mesa Oak,
- Valley Oak,
- Red Willow,
- Mexican Elderberry,
- California Bay.

Culver City has developed a Street Tree Master Plan (STMP), which identifies appropriate street tree types in specific areas of the City. Culver City's STMP identified the following trees for the Culver Boulevard Median in the project vicinity:

- Australian Willow
- Canary Island Pine

The City of Inglewood protects the following trees within its jurisdiction:

- Big Leaf Maple,
- California Buckeye,
- Madrone,
- Western Dogwood,
- California Sycamore,
- Canyon Live Oak,
- Oregon White Oak,
- Coast Live Oak,
- Blue Oak,
- California Black Oak,
- Valley Oak,
- California Bay,

- Interior Live Oak

The City of Los Angeles protects the following trees within its jurisdiction:

- Oak tree including valley oak,
- California Live Oak,
- Any other oak genus indigenous to California but excluding the scrub oak,
- Southern California Black Walnut,
- Western Sycamore,
- California Bay.

In addition, the City of Los Angeles also designates trees of importance as Heritage Trees. At Lafayette Park (LA05), the City has designated a Firewheel tree (located near Wilshire Boulevard) as a Heritage Tree (Los Angeles, 2014).

The City of West Hollywood has a Heritage Tree Program for the purpose of identifying, promoting awareness, maintaining and protecting designated Heritage Trees located within the City. None of the designated trees are located at Plummer Park (WEHO. 2014).

There is a potential for the Regional Projects to result in some tree removal, depending on the specific locations and parameters of the water quality improvements, which would require permits or other approvals from the respective jurisdiction. In the case of LA05, it does not appear that the water quality improvements would adversely affect the Firewheel Tree; however, this should be addressed in any site-specific environmental document for LA05. The jurisdictions could apply conditions of approval, including tree replacements, or other measure that mitigate the removals. There tree removals would likely have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

- f. **Would the project conflict with the provisions of an adopted habitat conservation plan, natural communities conservation plan, or any other approved local, regional, or state habitat conservation plan?**

No Environmental Constraint. The Regional Project sites are located within urbanized areas and are developed as parks and recreational facilities. The sites are not located within an adopted Natural Communities Conservation Plan (NCCP) or Habitat Conservation Plan (HCP). In addition, the sites are not located in or near any SEA.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES.	Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d.	Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion:

- a. **Would the project cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?**

Some Environmental Constraints. The Regional Projects would be located at community parks, or on a center median. None of the Regional Project sites are developed with structures over the age of 50-years that would be directly affected, and therefore, none of the Regional Projects would result in demolition or relocation of any historic structure. However, one historic structure is located close to each of two sites, BH01 and LA05.

BH01 - La Cienega Park. The headquarters for the Academy of Motion Picture Arts and Sciences occupies the building just north of Fenton Field. The building, the former Beverly Hills Water Treatment Plant No. 1 meets the City of Beverly Hill's criteria for designation as a local Landmark, as required in the City's Historic Preservation Ordinance, and is considered historic. Since Fenton Field could include a buried tank or infiltration unit and the field is located in close proximity to the historic building, there is the potential for construction activities to indirectly affect the historic structure, depending on the specific location, depth, and construction methods for the water quality improvements. In order to address this potential environmental constraint, an appropriately licensed engineer should review the improvements at Fenton Field and develop, as necessary, means and measures to avoid damage related to proximity of construction to the historic structure. **The constraint could have the effect of increasing the length of time required for individual project approvals and CEQA compliance.**

LA05 - Lafayette Park. The Felipe De Neve Library, which is a historic resource (Los Angeles Historic Cultural Monument No. 452), is located adjacent to and north of the project site. The water quality improvements would not require removal or physical

changes to the library, and as a consequence, are not expected to directly adversely affect the historic resource. However, since buried tanks and/or infiltration units could be placed in Lafayette Park in close proximity to the historic building, there is the potential for construction activities to indirectly and affect the historic structure, depending on the specific location, depth, and construction methods for the water quality improvements. In order to address this potential environmental constraint, an appropriately licensed engineer should review the improvements at Lafayette Park and develop, as necessary, means and measures to avoid damage related to proximity of construction to the historic structure. The constraint could have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?

Some Environmental Constraints. The Regional Project site, except for CC01, would be constructed within the boundaries of community parks and recreation sites. The surfaces of these sites are developed for active recreational uses (fields and courts) and passive recreational uses (picnic areas, etc.), and are not intensively developed. Because the development history of these sites are unknown and the onsite development is low intensity, there could be undisturbed soils below the sites which contain archaeological resources. In addition, in the case of the Culver Boulevard median (CC04), there could be artifacts related to its previous historic uses (railroad right-of-way). Based on this, site-specific cultural resource investigations, including a cultural resources records search and field survey by a qualified archaeologist) should be conducted, either prior to or as part of the site-specific environmental documentation for each Regional Project. Mitigation that may be applied in the site-specific environmental document may include monitoring of excavation work by a qualified archaeologist with the authority to halt construction, and the subsequent evaluation and curation of any discovered resources. This potential constraint could have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Some Environmental Constraints. Similar to the discussion under archaeological resources, the development history of the Regional Project sites are unknown and the onsite development is low intensity, there could be undisturbed subsurface geological units suitable for containing paleontological resources. The potential for the Culver Boulevard median to contain paleontological resources is somewhat limited due to prior ground disturbances associated with the rail right-of-way. However, a site-specific paleontological records search should be conducted by the County's Natural History Museum to determine whether paleontological resources can be present at the depths that would occur at each site, either prior to or as part of the site-specific environmental documentation for each Regional Project. Mitigation that may be applied in the site-specific environmental document may include monitoring of excavation work by a qualified paleontologist with the authority to halt construction, and the subsequent evaluation and curation of any discovered resources. This potential constraint could have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

d. **Disturb any human remains, including those interred outside of formal cemeteries?**

No Environmental Constraint. No cemeteries or burial sites are known to have occurred at the Regional Project site; however, it is still possible that human remains exist in the subsurface. In the event that an unknown burial site or human remains are found during excavation, California Health and Safety Code Section 7050.5 requires that in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbances must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives. Sections 5097.94 and 5097.98 of the Public Resources Code specify a protocol to be followed when the Native American Heritage Commission receives notification of a discovery of Native American human remains from a county coroner. Compliance with existing laws regarding the handling of human remains discovered outside of formal cemeteries are expected to address any issues associated with the unanticipated discovery of human remains, and no environmental constraints are anticipated.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS.	Would the project:				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
	ii.) Strong seismic ground shaking?			X	
	iii.) Seismic-related ground failure, including liquefaction?			X	
	iv.) Landslides?				X
b.	Result in substantial soil erosion or the loss of topsoil?				X
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X

Discussion:

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- (i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

No Environmental Constraints. Southern California is one of the most seismically active areas in the U.S. Numerous active faults and fault zones are located within the general region, including the Portero, Hollywood-Raymond, and Newport Inglewood faults. The Regional Projects would include subsurface storage basins and structures, and/or surface improvements. As part of the design process for any structure or facility, a geotechnical study is performed that evaluated and identifies faults and fault zones that could affect the project, and that would make recommendations regarding project design based on the geotechnical considerations. Because geotechnical considerations are addressed during the design phase, the Regional Projects would not result in exposure of people or structures to substantial geotechnical hazards.

- (ii.) Strong seismic ground shaking?**

No Environmental Constraints. As discussed above, the Los Angeles Basin is an area of known seismic activity. The risk of seismic hazards such as ground shaking cannot be avoided. Similar to the earthquake fault hazards described above, geotechnical considerations are required in the design phase, which would keep the Regional projects from resulting in exposure of people or structures to substantial geotechnical hazards related to ground shaking.

- (iii.) Seismic-related ground failure, including liquefaction?**

Less Than Significant Impact. Similar to the earthquake hazards described above, a geotechnical study for each Regional Project would be prepared to address geotechnical considerations, including liquefaction, during the Project design phase, which would keep the Regional projects from resulting in exposure of people or structures to geotechnical hazards related to liquefaction.

- (iv.) Landslides?**

No Environmental Constraints. The Regional Projects would be constructed and operate on various community park sites and a center median. The project sites are relatively flat with no substantial natural or graded slopes. The Regional Projects are not located near any landslide hazard areas; therefore, there would be no environmental constraints.

b. Would the project result in substantial soil erosion or the loss of topsoil?

No Environmental Constraints. The majority of Regional Projects would involve storage structures beneath community recreation areas, and would not result in erosion. Some Regional Projects would place bio-retention features at the ground surface (BH01, IG01, and CC04); however, these improvements would be engineered and constructed in a manner that infiltrates captured stormwater, rather than conveys it offsite. These

design features would limit the potential for erosion, and would not represent an environmental constraint.

- c. **Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?**

No Environmental Constraints. As discussed above, a geotechnical study for each Regional Project would be prepared to address geotechnical considerations during the Project design phase, which would keep the Regional Projects from resulting in substantive geotechnical hazards or risk exposure.

- d. **Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

No Environmental Constraints Expansive soils generally result from specific clay minerals that expand when saturated and shrink when dry. Expansive clay minerals are common in the geologic deposits throughout the Southern California region. As discussed above, a geotechnical study for each Regional Project would be prepared to address geotechnical considerations (including expansive soils) during the Project design phase, which would keep the Regional Projects from resulting in substantial risks to life or property.

- e. **Would the project have soils that are incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No Environmental Constraints. The Regional Projects are water quality improvement projects that do not generate wastewater. Therefore, the Regional Projects would not result in environmental constraints related to alternative wastewater disposal methods.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII.	GREENHOUSE GAS EMISSIONS. Would the project:				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b.	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion;

- a. **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

No Environmental Constraints. The Regional Projects would generate criteria pollutant emissions during construction, including CO₂ and equivalents. Construction emissions are amortized over 30-years, and are not likely to result in substantive annual greenhouse gas emissions. In addition, operation of the Regional Projects would consist of the pumping of stormwater to the treatment devices, and are not expected to generate substantial levels of greenhouse gasses.

- b. **Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?**

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not generate substantial greenhouse gas emissions. Because of this, the Regional Projects are not expected to not conflict with any applicable plans, policies, or regulations adopted by the state and local jurisdictions for the purposes of reducing GHG emissions.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school?				X
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?				X
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?				X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Discussion:

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Environmental Constraint. Construction activities associated with the Regional Projects are not likely to involve the use of substantial quantities of hazardous materials and the most likely source of hazardous materials would be from vehicles and construction equipment at the site. However, there could be small amounts of hazardous materials, including solvents and lubricants used to maintain construction equipment. These materials would be confined and located at the applicable staging areas. Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials), secondary confinement requirements, and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity and a Project-specific SWPPP, standard BMPs would be used during construction activities to minimize runoff of contaminants and clean-up any spills. Applicable BMPs include, but are not limited to controls for: vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; and waste management. Therefore, implementation of construction standards would minimize the potential for an accidental release of petroleum products, hazardous materials, and/or explosion during construction activities at the Project site. As a consequence, construction would not create an environmental constraint related to potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Operation of the Regional Projects would be automated (with minimal electrical consumption for pumping) and would not require hazardous materials, or otherwise create a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Would the project create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Some Environmental Constraints. The Regional Projects would be located on or beneath community parks, or in the case of CC04, on or beneath the center median. The Regional Project park sites are primarily located in residential or mixed commercial residential areas. Various hazardous materials and contamination databases were

reviewed (Geotracker and Envirostor), and two Regional Project sites were identified as having past actions to remediate contamination, BH01 and IG01.

None of the other Regional Project sites were documented to have been subject to past remediation efforts. Based on this, Regional Projects LA05, LA12, LA20, LA21, and WH01 are not expected to create a hazard to the public or environment during construction.

- BH01 - La Cienega Park. Regional Project site BH01 includes a small parcel at the northeast corner of Olympic Boulevard and La Cienega Boulevard (APN 5088-001-001), which is outside of the La Cienega Park. The small parcel is currently vacant, but a gas station was present on the site in the past (Geotracker, 2014). A gasoline leak was discovered at the site in 1989, was investigated in the early 2000s, and subsequently remediated. A final closure was issued by the Regional Water Quality Control Board (RWQCB) in 2007 and the case was closed. Residual contaminants may still be present at the southern parcel, and as such, could be encountered during construction if a water quality improvement is proposed for this parcel. This parcel may not be owned by the City of Beverly Hills, and if not, would likely need to be acquired by the City prior to implementing water quality improvements. If the parcel is to be acquired by the City, additional due diligence (for contamination) should be performed as part of the land acquisition process. A due diligence investigation and any residual contamination could have the effect of extending the time required for land acquisition, and introducing additional design and construction requirements. **The constraint could also have the effect of increasing the length of time required for individual project approvals and CEQA compliance.**
- IG01 - Edward Vincent Junior Park. Approximately 1.4 acres of the Edward Vincent Jr. Park was used by the Gas Co. for the production of "manufactured gas" in the early 1900s. Gas was manufactured at the site from coal and oil. The byproducts from this operation were tars, oils, sludges, lampblack etc, which were sold to various industrial uses. Some of these byproduct residues were found in soils (1995), including polycyclic aromatic hydrocarbons (PAH). Elevated levels of heavy metals such as lead and arsenic were also found. The Department of Toxic Substances (DTSC) subsequently entered into a Removal Action Consent Order with the Southern California Gas Company for the Inglewood Manufactured Gas Plant site, and oversaw the remediation of the contamination, which included the excavation of 5,824 tons of soil contaminated from former MGP operations. Excavated soil was recycled by thermal treatment. Sampling verified the achievement of cleanup goals. Clean soil was imported, backfilled, compacted and resodded. The remediation was completed in February of 1995 and this section of the public park.

Residual contaminants could potentially still be present at the southern parcel, and as such, could be encountered during construction if a buried water quality improvement is proposed for the western portion of the Edward Vincent Jr. Park (where the gas plant was located). Residual contamination, if present, could have the effect of extending the time required for project planning and implementation by introducing additional design and construction requirements. **The constraint could also have the effect of increasing the length of time required for individual project approvals and CEQA compliance.**

- CC04 - Culver Boulevard Median. The Culver Boulevard median is a former rail right-of-way, and although no contamination releases have been identified through the databases, there is a potential for subsurface railroad-related contamination to be present in the median, such as hydrocarbons, metals, and other substances. Contamination, if present, could have the effect of extending the time required for project planning and implementation by introducing additional design and construction requirements. The constraint could also have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

c. Would the project emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school?

No Environmental Constraint. None of the Regional Projects would utilize processes that could emit hazardous emissions or otherwise release hazardous substances or wastes. Infiltration devices would contain filtration systems designed to remove oils, metals, and other pollutants from storm water; however, the filters would be removed and disposed of in accordance with manufacturers' recommendations and would not be released to the environment. Because of this, no environmental constraint associated with the Regional Projects are expected.

d. Is the project located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Environmental Constraint. The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). Because this statute was enacted over twenty years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information to be included in the Cortese List does not exist. While Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992 and this information is now largely available on the Internet sites of the responsible organizations (CalEPA, 2014). The California Environmental Protection Agency (CalEPA) has identified the data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements (Cal EPA, 2014b).

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from State Water Board GeoTracker database
- List of solid waste disposal sites identified by the State Water Board with waste constituents above hazardous waste levels outside the waste management unit.

- List of "active" Cease and Desist Orders (CDO) and Cleanup and Abatement Order (CAO) from the State Water Board¹
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

The Hazardous Waste and Substance Site List maintained by the DTSC Information was downloaded from the DTSC EnviroStor website (DTSC, 2014), and reviewed. The Regional Project sites are not listed in the Hazardous Waste and Substance Site.

The Leaking Underground Storage Tank (LUST) Cleanup Sites contained in the State Water Resources Control Board (SWRCB) GeoTracker database was queried (November, 2014) by zipcode or city, and the Regional Project sites are not contained in the LUST Cleanup Site list.

The list of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit (CalEPA, 2014c) was reviewed, and the Project site was not contained in the list.

The list of "active" CDOs and CAOs from the SWRCB (SWRCB, 2014b) was downloaded on November 20, 2014 and reviewed (sorted and searched). The Regional Project sites are not contained in the list of "active" CDO and CAO.

The DTSC list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (DTSC, 2014b) contains only two facilities, and the Regional Project sites are not included in this list.

Based on the reviews of the specific lists that currently comprise the Cortese List, none of the Regional Project sites are contained on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. It should be noted that BH01 and IG01 have had past remediation activities, but these sites have been officially closed and are not currently on a Cortese List database.

- e. **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Environmental Constraints. The Regional Project site that is closest to a public airport is IG01, which is located approximately 3.4 miles east of the LAX runways. Further, none of the Regional Project sites are located within an airport land use plan or within two miles of a public airport; therefore, there would be no environmental constraints.

- f. **For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

No Environmental Constraints. There are numerous private airports throughout Los Angeles County, which include heliports. The proximity of the heliports to any of the Regional Projects would not result in a safety hazard for people working in the Project area, as the Regional Project would have no effect on air transport activities or their flight

¹ This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the State Water Boards' database does not distinguish between these types of orders.

paths. The Regional Projects would therefore not result in any safety hazards for people in the vicinity of the sites.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Environmental Constraint. The Regional Project sites are currently used for recreational activities (active and passive). The Culver Boulevard median (CC04) has a walking/bike path and is landscaped. Although the Regional Projects would place water quality improvement infrastructure within the park and recreational sites, additional construction would be required at each site to connect with the existing storm drain system, which are located within the streets surrounding each site. The storm drain connections would involve excavations into the streets to make the tie-ins with the storm drains, and would require the temporary closure of one or more lanes while street work is occurring. However, work would occur under permit from the applicable City, and appropriate notifications would be made to local emergency providers so that alternative routes can be planned for in the event of an emergency. As a standard practice, street work would be subject to the requirements of a Traffic Control Plan approved by the local transportation agency, or would comply with applicable work area traffic control requirements. In addition, contractors would have steel plating available in the event excavations need to be quickly spanned. Aside from the temporary street work, no other disruptions to the local transportation system would occur, and substantial interruptions to emergency access are not anticipated.

h. Would the project expose people or structures to the risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Environmental Constraint. The Regional Project sites are developed as community park and recreations areas, or landscaped center median, and no wildlands are present at the Regional Project sites. The areas immediately surrounding the Regional Project sites are urbanized, and no increased wildland fire hazard is expected as a result of the water quality improvements at each site.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	HYDROLOGY AND WATER QUALITY. Would the project:				
a.	Violate any water quality standards or waste discharge requirements?		X		
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?				X
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?				X
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?			X	
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f.	Otherwise substantially degrade water quality?				X
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j.	Contribute to inundation by seiche, tsunami, or mudflow?			X	

Discussion:

a. Would the project violate any water quality standards or waste discharge requirements?

Some Environmental Constraints. The Regional Projects would install and operate water quality improvement facilities at seven parks and a center median in the Ballona Creek watershed, which would divert, treat, and infiltrate stormwater in order to meet the requirements of the MS4 permits. The Regional Projects would generally result in beneficial impacts to water quality.

However, for **BH01, CC04, and IG01**, there is a potential for residual contamination to be present at portions of the sites (see Checklist Item VIII.b. above). If residual contamination does still exist and infiltration would occur in areas where the residual contamination is present, then there is a potential for adverse water quality impacts to groundwater. **This potential environmental constraint could result in increased time for the planning and design of these three Regional Projects, and could also have the effect of increasing the length of time required for individual project approvals, design and CEQA compliance.**

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Environmental Constraints. The Regional Projects would not be located in areas used for groundwater recharge and therefore would not interfere with groundwater recharge. The Regional Projects would divert runoff and stormwater from the storm drain system in the Ballona Creek watershed, and treat and infiltrate some of the diverted stormwater. As a consequence, the Regional Projects are considered to provide beneficial effects to groundwater by increasing infiltration above baseline conditions.

- c. **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?**

No Environmental Constraints. The Regional Projects would be located within community parks or a center median, and would not result in physical changes to a stream or river. All Regional Project sites would be restored following construction. Infiltration would occur subsurface and would not result in erosion. Bio-retention features would be designed to properly manage the diverted runoff and storm water, and would not result in erosion.

- d. **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?**

No Environmental Constraints. The Regional Projects would divert and store or divert and treat/infiltrate a portion of the stormwater generated within the Ballona Creek watershed, and would have the effect of decreasing the amount and slowing runoff generated in the watershed, which are considered to be beneficial effects. In addition, the stormwater diversions would decrease the potential for flooding downstream.

- e. **Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

No Environmental Constraints. The Regional Projects would divert and store or treat/infiltrate a portion of the stormwater generated within the Ballona Creek watershed, and would have the effect of improving runoff quality and decreasing the potential for flooding downstream.

- f. **Would the project otherwise substantially degrade water quality?**

No Environmental Constraints. No constraints regarding water quality are anticipated beyond those discussed under Checklist Item IX.a. above.

- g. **Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?**

No Environmental Constraints. No housing is proposed under any of the Regional Projects.

- h. **Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?**

No Environmental Constraints. The water quality improvements under the Regional Projects would be either buried infiltration or storage units, or surface bio-retention features, neither of which would impede site runoff or flood flows.

- i. **Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?**

No Environmental Constraints. Based on a review of the safety elements of the general plans of the City of Beverly Hills, Culver City, Inglewood, Los Angeles and West Hollywood, Regional Projects BH01, CC04, LA20, LA21, and WH01 appear to be within potential inundation or flood areas, including areas subject to flooding in the event of a dam failure. However, the Regional Projects would not house people or otherwise increase the risk of exposure to risks related to potential flooding. In addition, the Regional Projects are stormwater management projects that are expected to result in beneficial effects to downstream conveyance capacity in the event of a flood.

j. Would the project contribute to inundation by seiche, tsunami, or mudflow?

No Environmental Constraints. The Regional Project sites are not located within a tsunami hazard zone, or near inland water bodies that could be subject to a seiche. In addition, the sites are relatively flat and are not subject to mudflows.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	LAND USE AND PLANNING. Would the project:				
a.	Physically divide an established community?				X
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion:

a. Would the project physically divide an established community?

No Environmental Constraints. The Regional Projects would be located within existing community parks or a center median, and would not physically divide the surrounding communities.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Environmental Constraints. The Regional Projects would be placed within community parks that are designated as open space or public facilities, and are considered to be consistent with planned and existing uses.

Regarding Regional Project WH01, a master plan has been prepared for Plummer Park, and the water quality improvements do not appear to conflict with the master plan.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

No Environmental Constraints. The Regional Project sites do not fall within or near an area covered by a habitat conservation plan or natural communities conservation plan. In addition, there are no Significant Ecological Areas in the vicinity of the Regional Projects.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES.	Would the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Discussion:

- a. **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Environmental Constraints. The Regional Projects would be located within existing community parks or a center median, and none of the sites are designated as containing important mineral resources.

- b. **Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Environmental Constraints. The Regional Project sites are designated in the applicable general plan as open space or parks, and in the case of the Culver Boulevard median, for possible use as a linear park. Therefore, the Regional Projects would not result in the loss of availability of mineral resources.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE.	Would the project:				
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?			X	
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?			X	
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				X
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?				X

Discussion:

- a. **Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?**

No Environmental Constraints. The Regional Projects would be constructed at various park sites or landscaped center median. The sites are located in urbanized areas, and nearby land uses include primarily single-family and multi-family residences, and/or commercial establishments. Construction noise is typically governed by ordinance in each jurisdiction.

- **Beverly Hills Construction Noise Regulations.** The City of Beverly Hills (Municipal Code section 5-1-205) restricts construction between the hours of 6:00 PM and 8:00 AM of any day, or at any time on a Sunday or public holiday, as well as construction within a residential zone, or within 500 feet of a residential zone, at any time on a Saturday.

- Culver City Noise Regulations. Culver City (Municipal Code 9.04.020[D][2]) prohibits construction between the hours of 7:00 PM. and 8:00 AM. Monday through Friday, between 7:00 PM. and 9:00 AM on Saturday, and between 7:00 PM. and 10:00 AM. on Sunday.
- City of Inglewood Noise Regulations. The City of Inglewood (Municipal Code Section 5-41) prohibits construction between the hours of 8:00 PM. and 7:00 AM. every day if construction occurs within a residential zone or within 500 feet of a residence.
- City of Los Angeles Noise Regulations. The City of Los Angeles (municipal Code, Chapter IV, Article 1, Section 41.40) allows construction Monday through Friday between 7:00 AM to 9:00 PM, Saturdays and National Holidays between 8:00 AM to 6:00 PM, and prohibits construction on Sundays (except for residents). The noise regulations also prohibit night construction if related noise can disturb persons occupying sleeping quarters in any dwelling, hotel, or residence. Major public works projects conducted by the City are exempt from this weekend and holiday restriction.
- City of West Hollywood. The City of West Hollywood allows construction allowed Monday through Friday between 8:00 AM to 7:00 PM, and on Saturdays from 8:00 AM to 7:00PM (for interior work only). Work is prohibited on Sundays or City holidays.

Construction of the Regional Projects would occur within the hours allowed for in the applicable noise regulations, and would therefore be consistent with the governing noise standards.

Operation of the Regional Projects could require some pumping of stormwater to the infiltration structure, storage basin, or bio-retention feature; however, the pumps would likely be underground and would not generate noticeable noise. The water quality improvements would require periodic maintenance, however, maintenance activities would not result in substantial elevation in ambient noise.

b. Expose persons to or generate excessive groundborne vibration or groundborne noise?

No Environmental Constraints. Construction activities of the Regional Projects would generate some level of vibration. Construction equipment such as excavators, loaders, and haul trucks would generate vibrations that could result in groundborne noise or vibration that could affect nearby structures or residences. Transient vibration levels greater than 0.5 inches per second (in/sec) and continuous/frequent intermittent vibration levels greater than 0.3 in/sec have the potential to damage older residential structure. Additionally, transient vibration levels greater than 2.0 in/sec or continuous sources greater than 0.4 in/sec would be severely noticeable to a human (Caltrans, 2013b). All phases of the construction involve multiple trucks and other vibration producing equipment resulting in vibration levels approximately up to 0.02 in/sec at the closest residences. Excessive groundborne vibration and/or groundborne noise are not anticipated. Therefore, substantial vibrations are not expected to occur during construction of the Regional Projects.

Operation of the Regional Project could include changing of filters in runoff treatment units and general inspections; however, these types of maintenance activities do not

produce substantive vibrations. Therefore, operation of the proposed Project would not result in impacts related to groundborne vibration or noise.

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Environmental Constraints. Operation of the Regional Projects would include pump stations or wet wells that transfer stormwater from storm drains to the water quality improvement structures, as well as general maintenance activities. Pump stations would be underground or housed in small structures, and are not expected to produce audible noise. Because of this, operation of the Regional Projects are not expected to result in permanent increase in ambient noise levels.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Some Environmental Constraints. Construction of the Regional Projects would occur within the hours allowed for in the applicable local noise regulations, and although construction would result in temporary increases in noise levels compared to ambient conditions without construction, the noise levels are presumably not considered to be substantial (in the City of Beverly Hills, Culver City, City of Inglewood, and the City of West Hollywood) due to compliance with noise regulations.

However, for construction projects in the City of Los Angeles that last more than 10 days within a three-month period, the City recommends using the threshold of significance of 5 dBA or more increase in noise levels over existing ambient community noise equivalent level (CNEL), which is a type of 24-hour average noise level (City of Los Angeles, 2006). Given the extent of construction, the anticipated construction durations, and the surrounding noise receptors, it is likely that construction of the Regional Projects in the City of Los Angeles (LA05, LA12, LA20, and LA21) would result in temporary elevations of the CNEL in excess of the 5dBA threshold, which would have the effect of increasing the length of time required for individual project approvals and CEQA compliance.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Environmental Constraints. None of the Regional Project sites are located within an airport land use plan or within 2 miles of a public airport.

f. For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Environmental Constraints. There are numerous private airports throughout Los Angeles County, which include heliports. The proximity of the heliports to any of the Regional Projects would not result in exposure of people to excessive noise levels, as the Regional Project would have no effect on air transport activities or their flight paths, and would not cause people to move closer to a private airport.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	POPULATION AND HOUSING. Would the project:				
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?				X
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?				X

Discussion:

- a. **Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and business) or indirectly (e.g., through extension of roads or other infrastructure)?**

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not result in substantive employment demand and do not have a housing component that could induce population growth.

- b. **Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Environmental Constraints. No housing is located on any of the Regional Project sites, and no housing displacements would occur.

- c. **Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Environmental Constraints. There is no housing within the Regional Project site boundaries that would be displaced. The Regional Projects would not result in the displacement of any persons, or the need for replacement housing.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV.	PUBLIC SERVICES. Would the project:				
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	i.) Fire protection?				X
	ii.) Police protection?				X
	iii.) Schools?				X
	iv.) Parks?				X
	v.) Other public facilities?				X

Discussion:

- a. **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

i.) Fire Protection

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not increase housing or induce population growth that could in turn increase the need for new fire protection services. Although the Regional Projects would involve some construction within the street system to connect to storm drains, the construction is not expected to substantively increase fire protection response times because prior notifications to emergency service providers occur as a standard permit condition for in-street construction.

ii.) Police Protection

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not increase housing or induce population growth that could in turn increase the need for new police protection services. Although the Regional Projects would involve some construction within the street system to connect to storm drains, the construction is not expected to substantively increase police protection response times

because prior notifications to emergency service providers occur as a standard permit condition for in-street construction.

iii) Schools

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not increase housing or induce population growth that could in turn increase the need for new schools.

iv) Parks

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not increase housing or induce population growth that could in turn increase the need for new parks. Environmental constraints related to impacts on existing community parks are discussed under Checklist Item XV.b. below.

v) Other Public Facilities

No Environmental Constraints. The Regional Projects are water quality improvement projects that would not increase housing or induce population growth that could in turn increase the need for new public facilities.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.	Would the project:				
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?		X		

Discussion:

- a. **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Environmental Constraints. The Regional Projects would construct and operate water quality improvement facilities at specific community parks (and a center median) in the City of Beverly Hills, Culver City, City of Inglewood, City of Los Angeles, and the City of West Hollywood. The water quality improvement facilities are considered to be infrastructure projects that do not increase the housing stock and do not result in the movement or relocation of people from one area to another. As a consequence, the Regional Projects would not result in increased demand for recreational facilities and would therefore not directly or indirectly result in physical deterioration of parks or other recreational facilities.

- b. **Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

Some Environmental Constraints. The Regional Projects would construct and operate water quality improvement facilities at specific community parks (and a center median) in the City of Beverly Hills, Culver City, City of Inglewood, City of Los Angeles, and the City of West Hollywood. Because the community parks and center median are utilized by the Public for recreation and because the excavation would be required, some of the recreational uses at each Regional Project site would be temporarily disrupted, and are discussed below.

- **BH01 - La Cienega Park.** The water quality improvement features at La Cienega Park include buried storage basins and infiltration units at the main park site (east of La Cienega Boulevard), either a buried structure or surface bio-retention feature at Fenton Field (west of La Cienega Boulevard), and a buried unit at the parcel located at the northeast corner of Olympic Boulevard and La Cienega Boulevard. The improvements on the parcel would not affect any park or

recreational uses, as the parcel is not a part of the La Cienega Park. The improvements, depending on where they would be located, would require substantial excavation of the main park site, which could result in temporary closure of one or more active fields, playground, and/or running path. The closures would occur for the duration of construction (estimated to be 12-18 months) and the amount of time it would take to restore the fields, and other affect recreational features (estimated at 1-2 months). If the water quality improvement at Fenton Field would be buried unit, the field would be temporary closed for up to 18 months during construction. If the improvement is a surface bio-retention feature, the use of Fenton Field would be restricted on an on-going basis during wet weather, and for additional periods to allow for the field to drain (infiltration). These temporary and seasonal loss (Fenton Field) of recreational areas of La Cienega Park are likely to require close coordination between the City of Beverly Hills and stakeholders to develop suitable mitigation options for addressing the temporary and seasonal loss of recreational uses. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.

- CC04 - Culver Boulevard Median. The water quality improvements at the Culver Boulevard median would likely be a surface bio-retention type of improvement which would require rebuilding the median. This would result in a closure of the existing walking/bike path on the median during construction and rebuilding. It is unclear at this time whether the walking/bike path would be restored on the median, or relocated. The temporary closure Culver Boulevard median recreational features during construction, and potential permanent changes to the bike and walking path along the median are likely to require close coordination between Culver City and stakeholders to develop suitable mitigation options for addressing impacts to recreational uses of the median. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.
- IG01 - Edward Vincent Junior Park. The water quality improvements proposed for the Edward Vincent Jr. Park include surface features such as bio-retention along existing drainage contours. The improvements could require the temporary closure of some passive recreational uses, closure of the active fields, and potentially their relocation within the Park. In addition, the water quality improvements could span a large portion of the Park in an east-west direction, and when water is captured and before it infiltrates, they could restrict further use of the park. The potential of water quality improvements to adversely affect park uses are likely to require close coordination between the City of Inglewood and stakeholders to develop suitable mitigation options for addressing impacts to recreational uses within Edward Vincent Jr. Park. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.
- LA05 - Lafayette Park. The water quality improvement features at Lafayette Park include buried storage basins and infiltration structures throughout the main park site. The improvements are likely to require substantial excavation of the main park site, which could result in temporary closure of one or more active areas (soccer field and basketball courts), skate park, and passive recreational areas (picnic and landscaped areas). The closures would occur for the duration of

construction (estimated to be 12-18 months) and the amount of time it would take to restore the fields, and other affect recreational features (estimated at 1-2 months). These temporary closure of the recreational uses within Lafayette Park are likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options for addressing the temporary loss of recreational uses. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.

- LA12 – Rancho Park Golf Course. The water quality improvement features at Rancho Park include buried storage basins and infiltration units at the northeast end of the park (beneath the baseball fields), and at the southwest end of the park (near the Rancho Park Golf Course). The improvements would require substantial excavation, which could result in temporary closure of the baseball fields, and potentially a small section of the southwestern end of the golf course. The closures would occur for the duration of construction (estimated to be 12-18 months) and the amount of time it would take to restore the fields, and other affect recreational features (estimated at 1-2 months). The temporary closure of the recreational uses within Rancho Park and the golf course are likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options for addressing the temporary loss of recreational uses. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.
- LA20 – Poinsettia Park. The water quality improvement features at Poinsettia Park include buried storage basins and infiltration units at the north end of the park (beneath the baseball fields). The improvements would require substantial excavation, which could result in temporary closure of the baseball fields, and potentially one or more tennis courts in order to make connections to the storm drain located in North Poinsettia Place. The closures would occur for the duration of construction (estimated to be 12-18 months) and the amount of time it would take to restore the fields, and other affect recreational features (estimated at 1-2 months). The temporary closure of the recreational uses within Poinsettia Park are likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options for addressing the temporary loss of recreational uses. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.
- LA21 - Queen Anne Recreation Center. The water quality improvement features at the Queen Anne Recreation Center include buried storage basins and/or infiltration units at the northern end of the park (beneath the baseball fields), and potentially beneath the tennis courts. The improvements would require substantial excavation, which could result in temporary closure of the baseball fields and tennis courts. The closures would occur for the duration of construction (estimated to be 12-18 months) and the amount of time it would take to restore the fields, and other affect recreational features (estimated at 1-2 months). The temporary closure of the recreational uses within Queen Anne Recreation Center are likely to require close coordination between the City of Los Angeles and stakeholders to develop suitable mitigation options for addressing the temporary loss of recreational uses. This represents an environmental constraint which

would have the effect of increasing the length of time required for project approval and CEQA compliance.

- WH01 – Plummer Park. The water quality improvement features at the Plummer Park site include buried storage basins and/or infiltration unit at the northern end of the Park beneath the parking lot. The improvements are likely to require substantial excavation at the north parking area and result in temporary closure of the parking lot. The closures would occur for the duration of construction (estimated to be at least one year) and the amount of time it would take to restore the parking lot (estimated at 1-2 months). The Helen Albert Certified Farmers' Market runs every Monday from 9:00 AM to 2:00 PM, including most holidays, at the north parking lot. In addition, a master plan has been prepared for Plummer Park, and is currently being reviewed by the City (WEHO, 2014). The anticipated master plan improvements at the park would take about 22 months to construct, and it is the City's intent to keep the park open during construction and utilize the north parking lot for park visitors during master plan construction. These temporary closure of the north parking lots at Plummer Park will require close coordination between the City of West Hollywood and stakeholders to develop suitable mitigation options for addressing the temporary loss of park parking, temporary relocation of the farmers market, and to address construction issues associated with either overlapping or sequential construction of the master plan improvements and the water quality improvements. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.	TRANSPORTATION/TRAFFIC. Would the project:				
a.	Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c.	Result in a change in marine vessel traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e.	Result in inadequate emergency access?				
f.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?		X		

Discussion:

- a. **Would the project increase the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

No Environmental Constraints. The Regional Projects would involve water quality improvements at seven community parks and a center median. Although the Regional

Projects would require some construction within the streets surrounding each site to make connections with storm drains, the construction would be temporary and subject to traffic control plans as required by the applicable city. Once the connections are made, the streets would be repaired and returned to service. In the case of the water quality improvements to the Culver Boulevard median (CC04), the median could be slightly widened to the north (along the residential side of Culver Boulevard); however, this widening would not substantively reduce the capacity of Culver Boulevard (the north side only serves the adjacent residences). Because the Regional projects would not make substantive changes to the circulation system or street capacities, they are not expected to pose environmental constraints in this area.

- b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

No Environmental Constraints. The Regional Projects are not located along a CMP highway or arterial (Metro, 2010), and are not considered traffic generators. Therefore, the Regional Project would not conflict with the LA County Congestion Management Plan.

- c. Would the project result in a change in marine vessel traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

No Environmental Constraints. The Regional Projects are land based and are not generators of marine vessel traffic. Therefore, the Regional Project would not result in any environmental constraints related to marine vessel traffic.

- d. Would the project substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

No Environmental Constraints. The Regional Projects would involve water quality improvements at seven community parks and a center median. Although the Regional Projects would require some construction within the streets surrounding each site to make connections with storm drains, the construction would be temporary and subject to traffic control plans as required by the applicable city. Once the connections are made, the streets would be repaired and returned to service. Because no substantive changes would be made to the street system, the Regional Projects would not increase roadway hazards.

- e. Would the project result in inadequate emergency access?**

No Environmental Constraints. As discussed under Checklist Item VIII.g. above, the Regional Projects would not result in substantial interruptions to emergency access.

- f. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

Some Environmental Constraints. The Regional Projects proposed for the community park sites would not result in permanent changes to the street systems that could affect alternative transportation routes, such as bike lanes or bike paths. However, the Regional Project proposed for the Culver Boulevard median (CC04), would result in the temporary closure of the bike land and walking path in the center median, and could

potentially result in the relocation of the bike path, depending on the specific details of CC04 (see Checklist Item XV.b. above). The temporary closure Culver Boulevard median bike path and its potential relocation are likely to require close coordination between Culver City and stakeholders to develop suitable mitigation options for addressing impacts to recreational uses of the median. This represents an environmental constraint which would have the effect of increasing the length of time required for project approval and CEQA compliance.

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		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS.					
	Would the project:				
a.	Exceed wastewater treatment requirements of the applicable regional water quality control board?				X
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?				X
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?				X

Discussion:

- a. Would the project exceed wastewater treatment requirements of the applicable regional water quality control board?**

No Environmental Constraints. The Regional Projects are water quality improvements projects that are not generators of wastewater. Therefore, the Regional Projects would not affect wastewater treatment requirements.

- b. **Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

No Environmental Constraints. The Regional Projects are water quality improvements projects do not consume water or generate wastewater. Therefore, the Regional Projects would not increase require new potable water supplies or additional wastewater treatment capacity.

- c. **Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

No Environmental Constraints. The Regional Projects are water quality improvements projects that would divert a portion of the runoff generated in the Ballona Creek watershed, and would store, treat, and infiltrate the diverted runoff. The Regional Projects would have beneficial effects on downstream storm drain capacity.

- d. **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

No Environmental Constraints. The Regional Projects are water quality improvements projects that do not consume water. Therefore, the Regional Projects would not require new water supplies.

- e. **Has the wastewater treatment provider that serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Environmental Constraints. The Regional Projects are water quality improvements projects that do not generate wastewater and would not have an effect on existing wastewater treatment capacity.

- f. **Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

No Environmental Constraints. The Regional Projects are water quality improvements projects do not generate substantial amounts of solid wastes. The Regional Projects would include a pre-treatment or filtration device that removes sediment, oils, particulates, and other contaminants from stormwater. The filters would periodically be removed and disposed of in accordance with applicable laws and regulations. Although some solid wastes would be generated by the Regional Projects, the amounts would be minimal and would not adversely affect landfill capacity. During construction, excavated soil would be hauled away and reused elsewhere in the area, or used as landfill cover, which does not contribute to reductions in landfill capacity.

- g. **Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

No Environmental Constraints. As discussed above, the Regional Projects would generate minimal solid wastes, but would comply with applicable solid waste regulations.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	MANDATORY FINDINGS OF SIGNIFICANCE				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X		
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion:

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Construction of the Regional Projects could affect nesting birds if tree removals are required during the nesting season. Construction of water quality improvements at BH01 and LA05 could indirectly affect nearby historic structures. These potential constraints have been identified above, and would be addressed during site-specific CEQA compliance.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past**

projects, the effects of other current projects, and the effects of probable future projects.)

Construction of the Regional Projects could contribute to cumulative air quality and noise impacts, as well as other resource area impacts. However, cumulative impacts would be addressed in the County's Program EIR or in site-specific CEQA documentation.

c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

The Regional Projects would result in impacts on human beings related to air quality, water quality, noise, and recreation, as described above. These impacts would be addressed in future site-specific CEQA documentation.

DRAFT

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APPENDIX C

SIZING AND CONFIRMATION

MEETING NOTES

DRAFT

Ballona Creek Watershed - Summary of Key Parameters for Eight Regional Projects for Engineering Feasibility

Cluster ID	Site Description	BMP Site Area (ac)	Drainage Area (ac)	Storm Volume Runoff Expected (ac-ft)	Storm Volume Runoff Expected (gal)	Approx. BMP Footprint (ac)	Approx. BMP Depth (ft)	Maximum BMP footprint (ac)	Maximum BMP depth (ft)	Maximal Drainage Area (ac)	Alternative Reduced Drainage Area (ac)	Notes, Actions, Other
BH01	La Cienega Park / Frank Fenton Field	16.9	578.5	30.3	9,871,000	6.8	4.5	As shown, but delete the abandoned gas station site at the n/e corner of Cienega Blvd. and W. Olympic Blvd.	As deep as reasonable to optimize BMP footprint and minimize conflicts with park.	Blue area (on Amanda's supplementary map)	Yellow area (on Amanda's map)	Advance to optimization.
CC01	Culver Coulevard Median	2.1	829.4	35.4	11,540,000	2.2	15.8	As shown.	As deep as reasonable to optimize BMP footprint and recognize that groundwater was found at 12 feet bgs nearby.	Per Steve F's delineation.	Steve F's area without Sepuveda Drain.	B&V to follow-up with Steve. Prior to optimization.
IG01	Edward Vincent Jr. Park	50.6	983.3	30.4	9,909,000	6.3	4.8	As shown, but consider the active volume to be an above-ground (pond) at the west side of the park. The upstream streambed could be used for wetlands upstream.	As deep as reasonable to optimize BMP footprint and fit park uses.	As shown.	Consider only taking flow in the SD within S. Verdun Ave. and N. Chester Ave.	Susie will discuss with Inglewood and suggest time for a conference call.
LA10	Rancho Park Golf Course	189.2	359.3	14.4	4,687,000	15.5	0.9	As shown, but more area could be utilized at the s/e side of the course if needed.	As deep as reasonable to optimize BMP footprint and fit golf course uses.	Maximum area should consider taking flow from Benedict Cyn (via pump or tunnel). Even if it is for dry weather flow only or reduced %)	As shown.	Advance to optimization.
WH01	Plummer Park	7.6	389.3	11.7	3,817,000	0.9	13.6	As shown.	As deep as reasonable to optimize BMP footprint and fit the site.	As shown.	Use SD "C" alone.	Advance to optimization.
LA19	Queen Anne Recreation Center	5.4	8530.7	366.3	119,350,000	2.1	174.1	As shown.	As deep as reasonable to optimize BMP footprint and fit the site.	Consider only taking flow from SD "A".	If site limiting, consider options for non-regional EWMP Project.	B&V to investigate SD further, prior to optimization.
LA04	Lafayette Park	9.1	2860.6	131.3	42,771,000	4.3	30.5	As shown, but delete west side with the MB Fig Tree and the Skatepark on the west side	As deep as reasonable to optimize BMP footprint and fit park uses.	With this reduced footprint this would be a very deep BMP (60 ft), so consider minimizing the drainage area.	Consider only taking flow from SD "A".	B&V to investigate SD further, prior to optimization.
LA18	Poinsettia Park	6.3	1379.3	41.5	13,527,000	2.7	15.4	As shown, consider adding area under basketball courts as needed.	As deep as reasonable to optimize BMP footprint and fit park uses.	As shown.	If site limiting, consider options for non-regional EWMP Project.	Advance to optimization.

= notes from 11/25/14 meeting

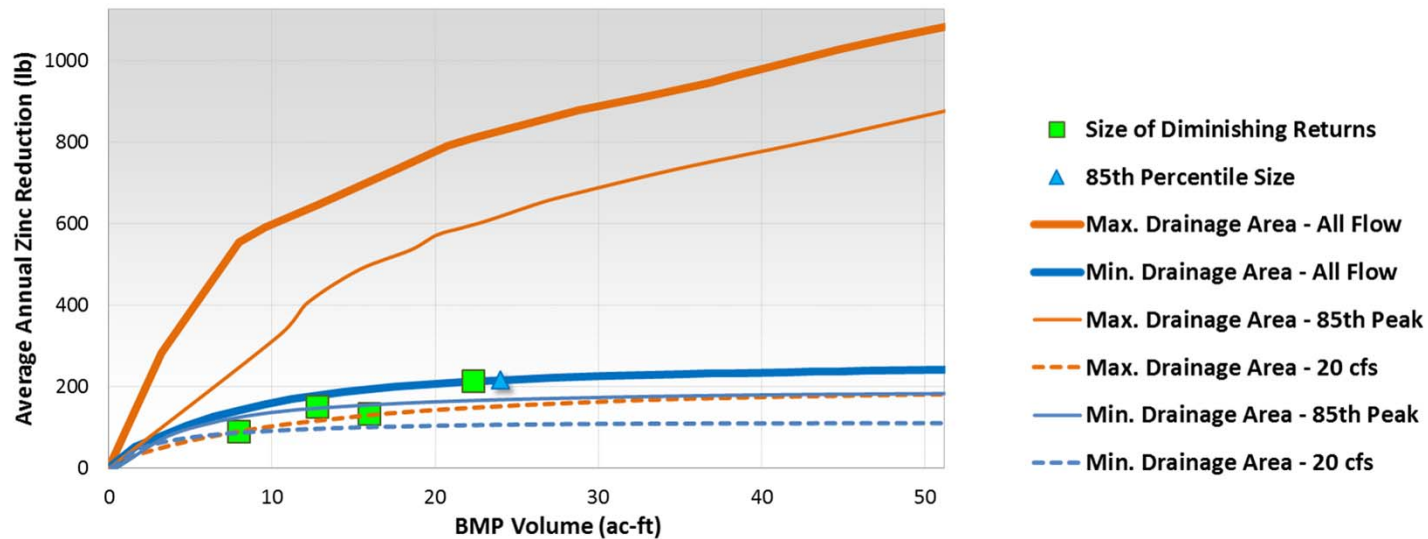
APPENDIX D

OPTIMIZATION RESULTS

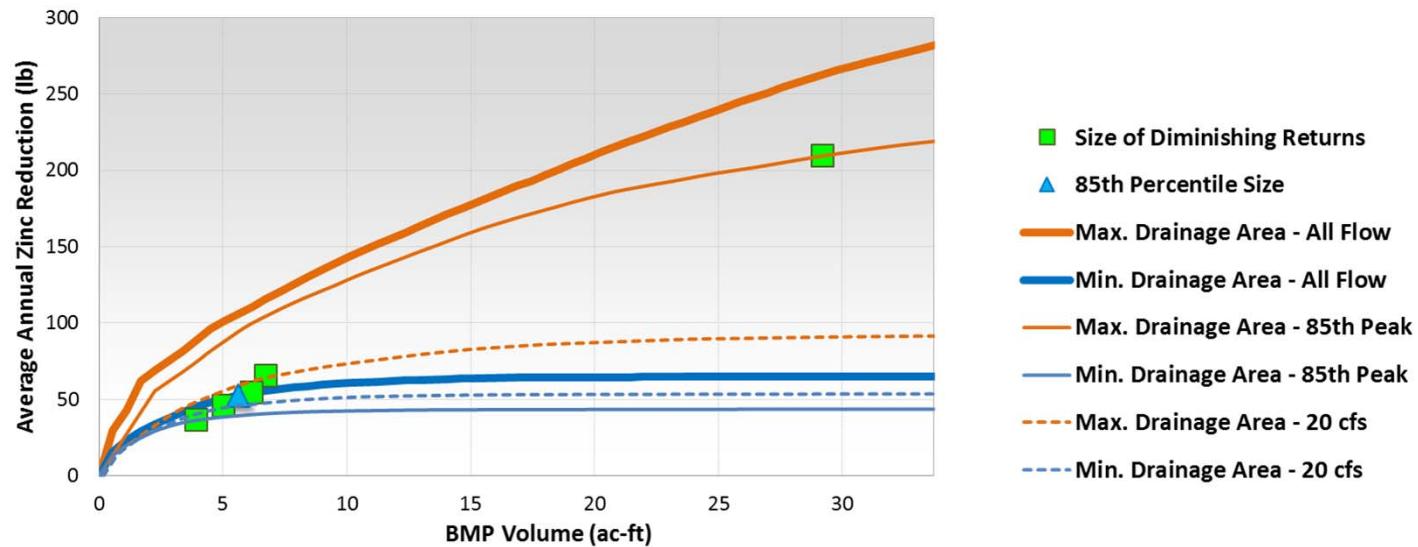
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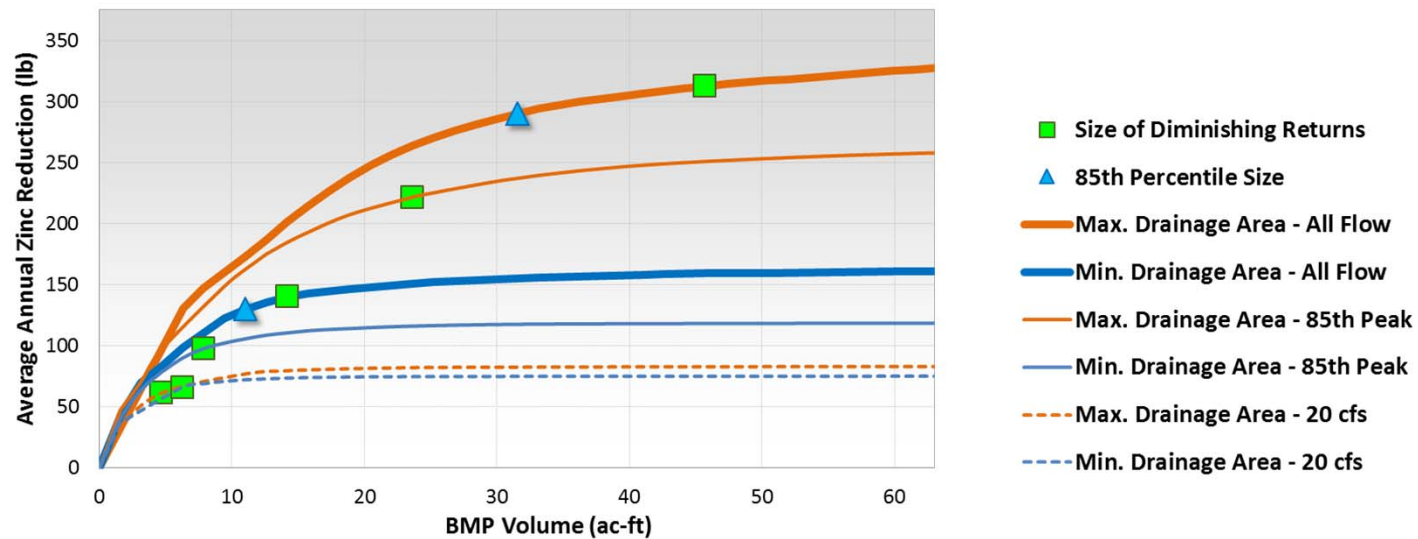
BH01: La Cienega Park / Frank Fenton Field



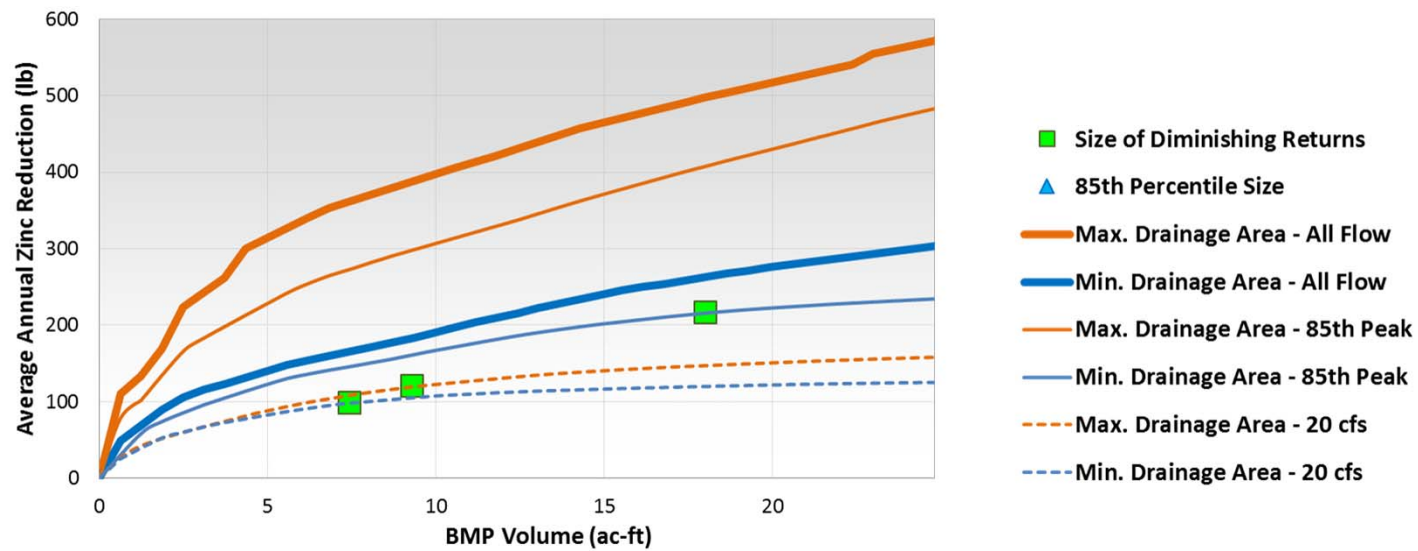
CC01: Culver Boulevard Median



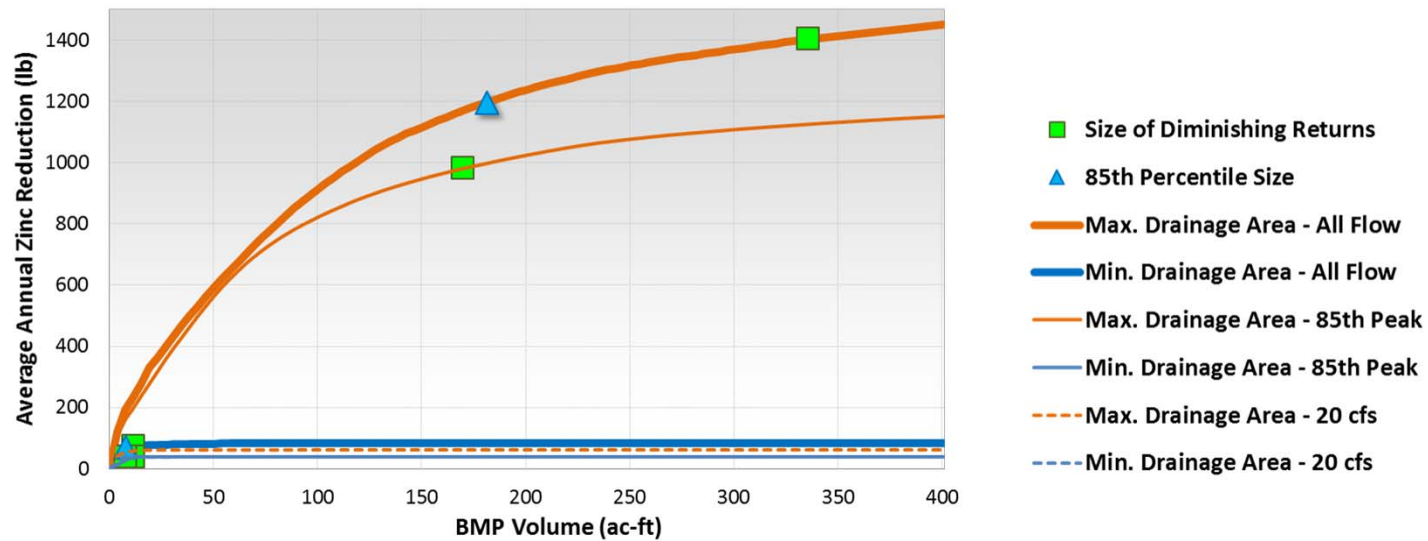
IG01: Edward Vincent Junior Park



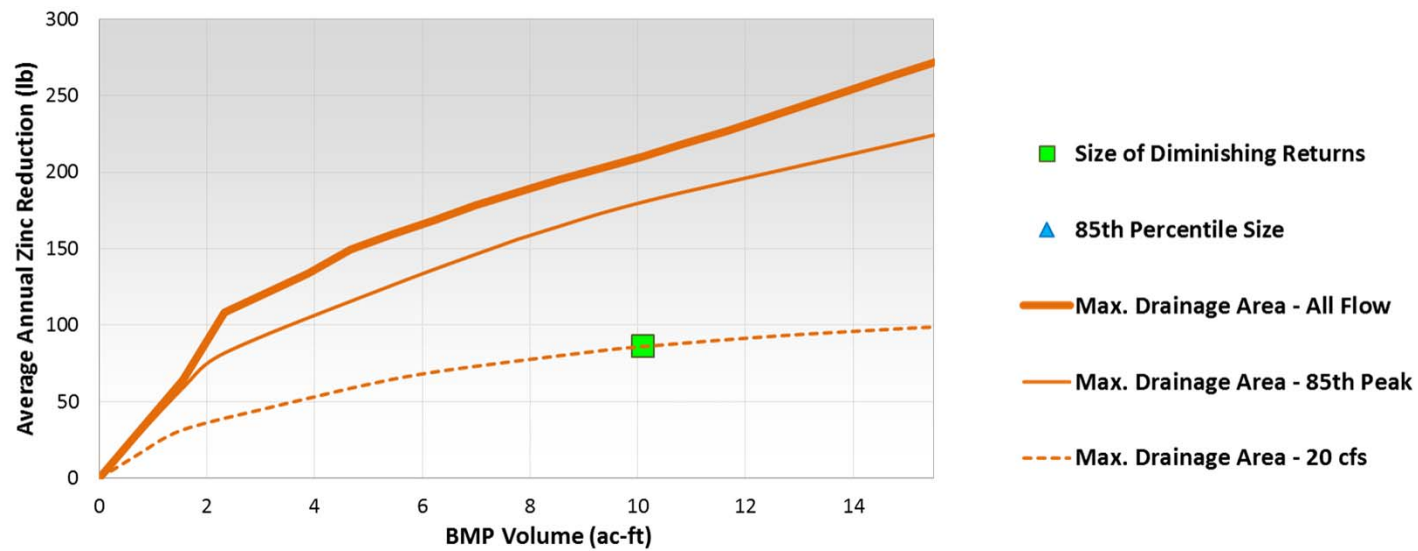
LA04: Lafayette Park



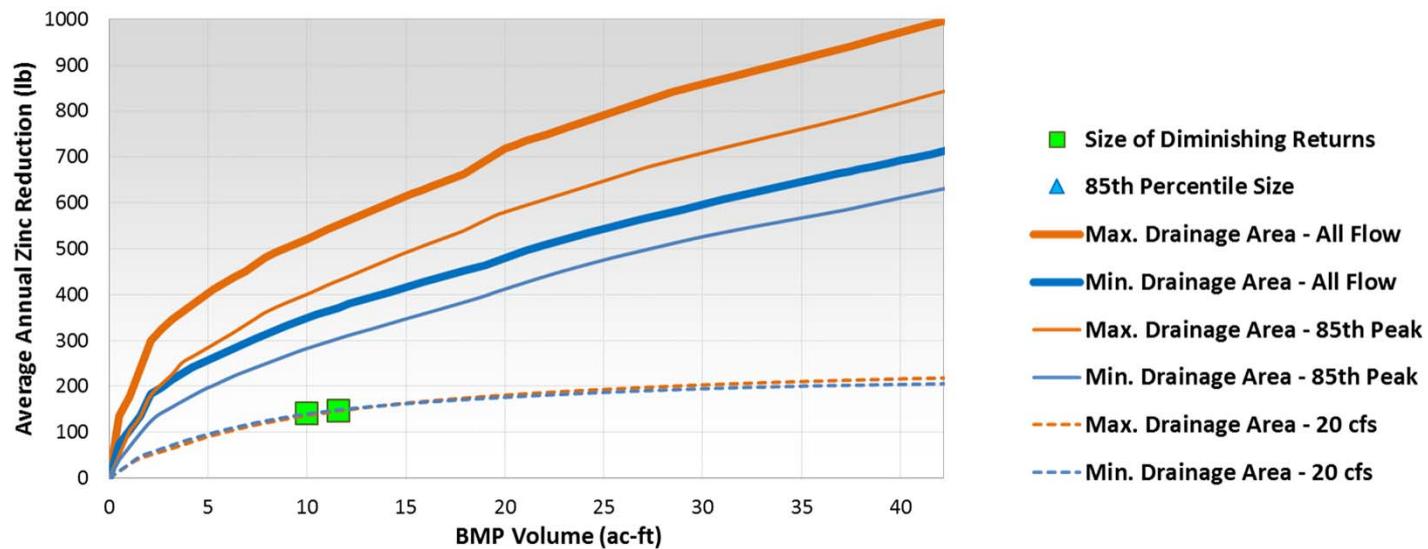
LA10: Rancho Park Golf Course



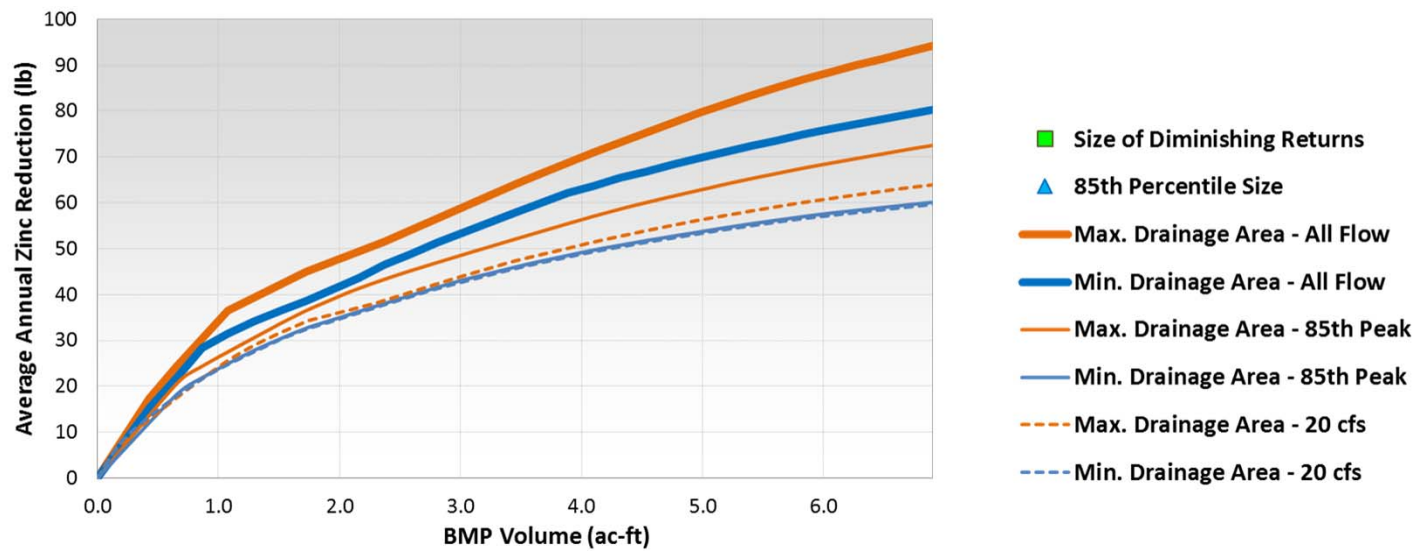
LA18: Poinsettia Park



LA19: Queen Anne Recreation Center



WH01: Plummer Park



Summary of Recommended Solutions

Cluster ID	Site Description	Recommended Size					
		Minimum Drainage Area			Maximum Drainage Area		
		20 cfs Diversion	85th %-ile Peak Diversion	Online (All Flow)	20 cfs Diversion	85th %-ile Peak Diversion	Online (All Flow)
BH01	La Cienega Park / Frank Fenton Field	PDR	85th	85th	PDR	MAX	MAX
CC01	Culver Coulevard Median	85th	85th	PDR	PDR	PDR	MAX
IG01	Edward Vincent Jr. Park	PDR	85th	PDR	PDR	85th	PDR
LA04	Lafayette Park	PDR	PDR	MAX	PDR	MAX	MAX
LA19	Queen Anne Rec Center	PDR	MAX	MAX	PDR	MAX	MAX
LA10	Rancho Park Golf Course	PDR	PDR	PDR	PDR	85th	PDR
LA18	Poinsettia Park				PDR	MAX	MAX
WH01	Plummer Park	MAX	MAX	MAX	MAX	MAX	MAX

*Solutions highlighted green also capture 85th percentile volume

Cluster ID	Site Description	Recommended Size (ac-ft)					
		Minimum Drainage Area			Maximum Drainage Area		
		20 cfs Diversion	85th %-ile Peak Diversion	Online (All Flow)	20 cfs Diversion	85th %-ile Peak Diversion	Online (All Flow)
BH01	La Cienega Park / Frank Fenton Field	8.0	24.0	24.0	16.0	MAX	MAX
CC01	Culver Coulevard Median	5.6	5.6	6.2	6.7	29.2	MAX
IG01	Edward Vincent Jr. Park	6.3	11.0	14.2	4.7	31.5	45.7
LA04	Lafayette Park	7.5	18.0	MAX	9.3	MAX	MAX
LA19	Queen Anne Rec Center	10.0	MAX	MAX	11.6	MAX	MAX
LA10	Rancho Park Golf Course	7.7	11.6	11.6	11.6	181.4	335.7
LA18	Poinsettia Park				10.1	MAX	MAX
WH01	Plummer Park	MAX	MAX	MAX	MAX	MAX	MAX

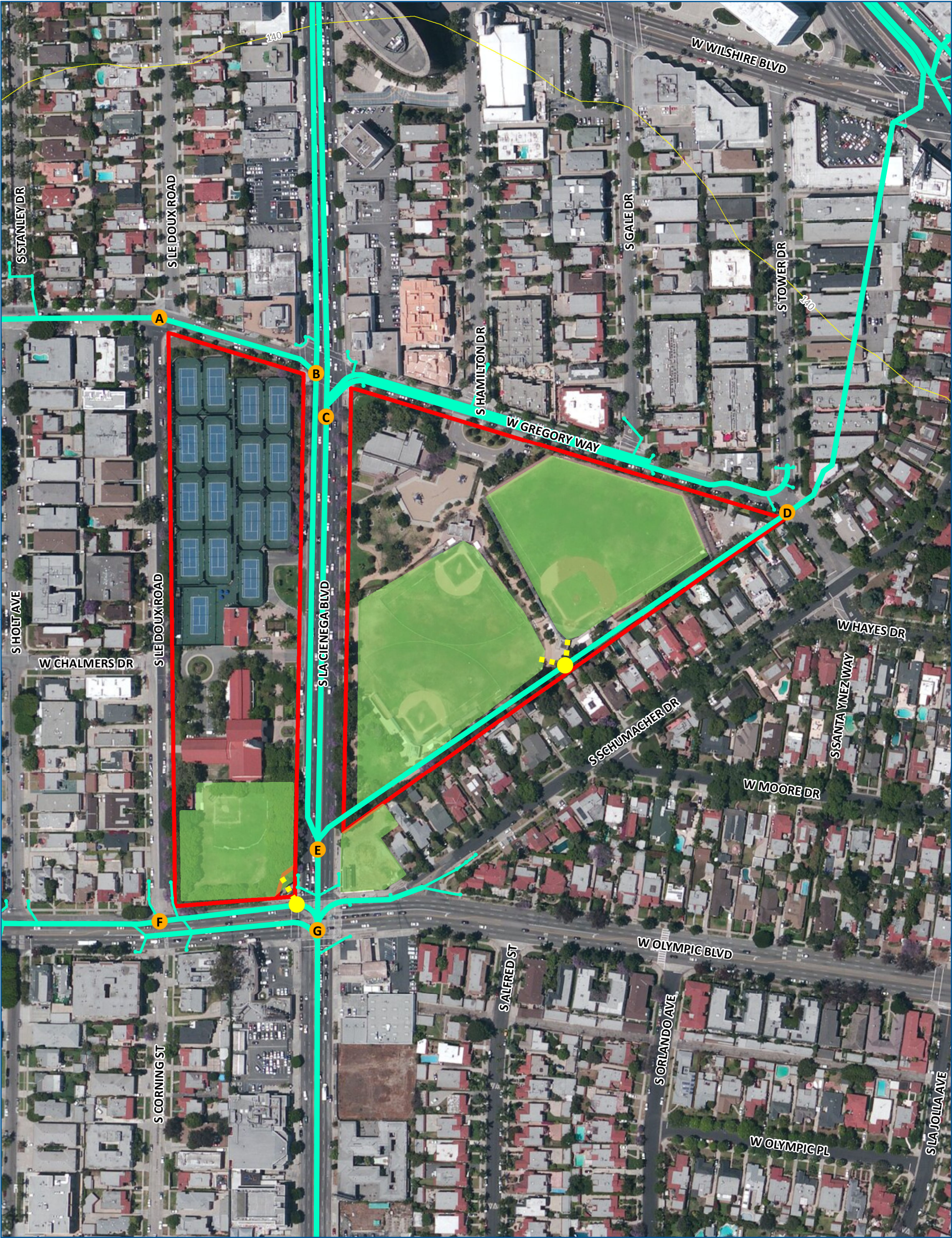
*Solutions highlighted green also capture 85th percentile volume

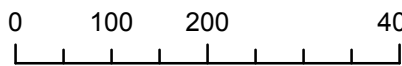
APPENDIX E

PROJECT SITE MAPS WITH BMP

OPPORTUNITY AREAS

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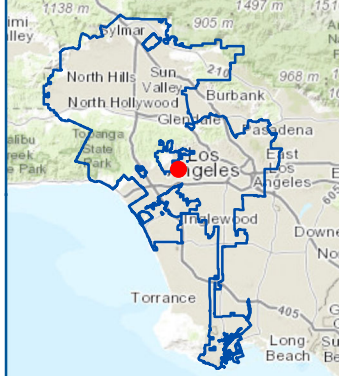




1 inch = 200 feet

LEGEND

- Proposed Diversion Structure
- BMP Site Data Points
- Proposed Pipeline Alignment
- Existing Storm Drain Network
- Proposed BMP Footprint
- Selected BMP Site
- Contours

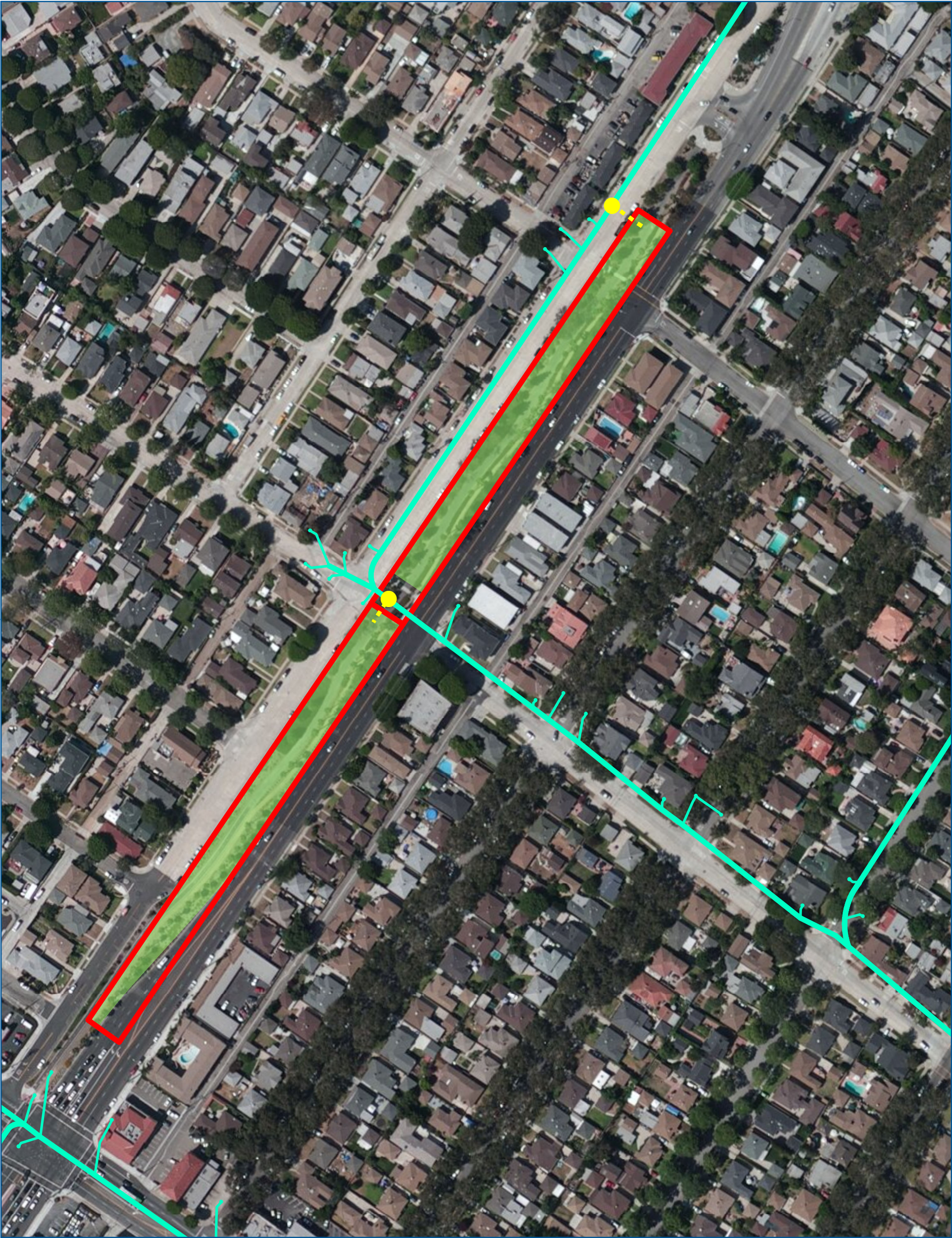


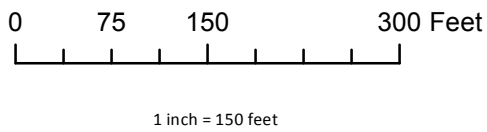
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Enhanced Watershed Management Plan**

**BMP Site Investigation
La Cienega Park**

PN 182198

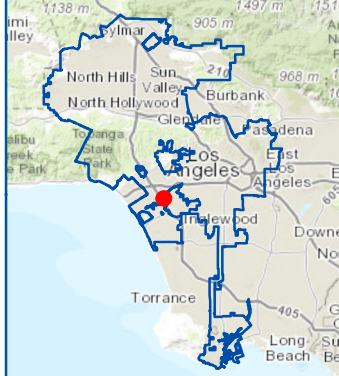
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LEGEND

-  Proposed Diversion Structure
-  BMP Site Data Points
-  Proposed Pipeline Alignment
-  Existing Storm Drain Network
-  Selected BMP Site
-  Proposed BMP Footprint
-  Contours



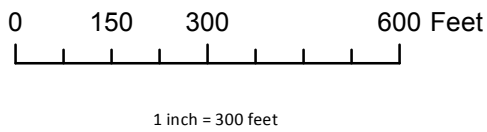
**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Site Investigation
Culver Boulevard Median**

PN 182198

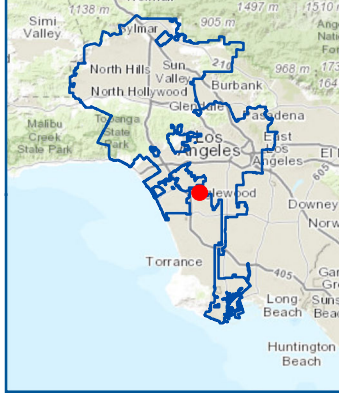
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LEGEND

-  BMP Site Data Points
-  Proposed Pump Station
-  Proposed Pipeline Alignment
-  Existing Storm Drain Network
-  Selected BMP Site
-  Potential BMP Footprint
-  Contours

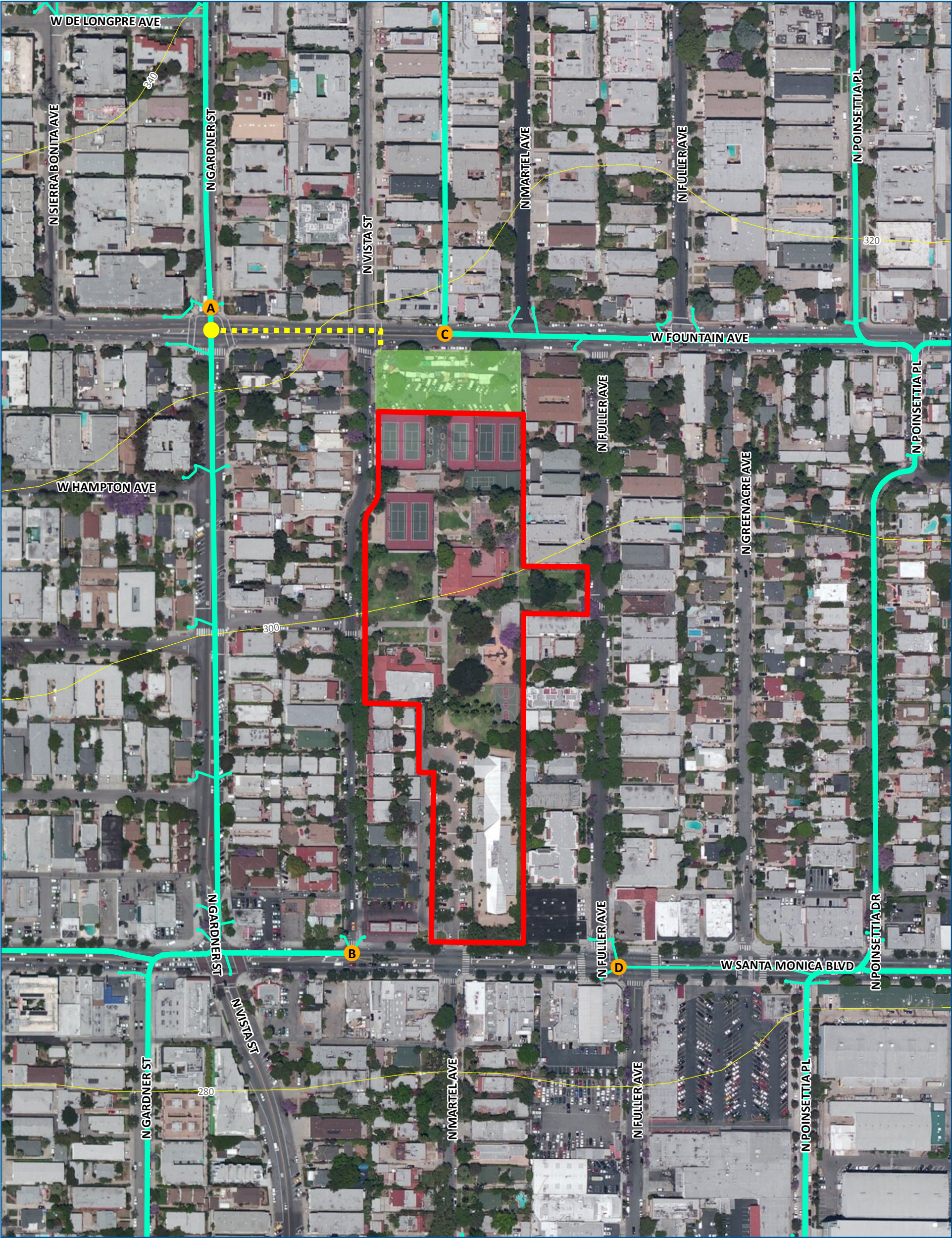


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Enhanced Watershed Management Plan**

**BMP Site Investigation
Edward Vincent Junior Park**

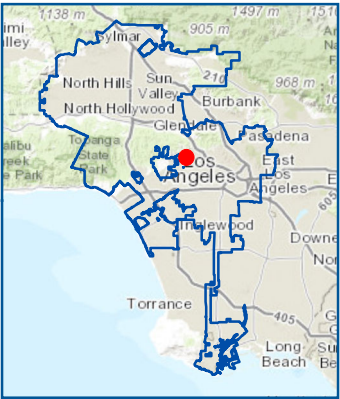
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LEGEND

- Proposed Diversion Structure
- BMP Site Data Points
- Proposed Pipeline Alignment
- Existing Storm Drain Network
- Selected BMP Site
- Proposed BMP Footprint
- Contours



**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Site Investigation
Plummer Park**

PN 182198





050100200 Feet

1 inch = 100 feet

LEGEND

Proposed Pump Station

Proposed Diversion Structure

BMP Site Data Points

Proposed Pipeline Alignment

Existing Storm Drain Network

Selected BMP Site

Proposed BMP Footprint

Contours

Ballona Creek

Enhanced Watershed Management Plan

BMP Site Investigation

Queen Anne Rec Center

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1 inch = 150 feet

LEGEND

- ▲ Proposed Pump Station
- Proposed Diversion Structure
- BMP Site Data Points
- Proposed Pipeline Alignment
- Existing Storm Drain Network
- ▭ Selected BMP Site
- Proposed BMP Footprint
- Contours

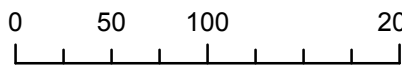
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Lafayette Park**

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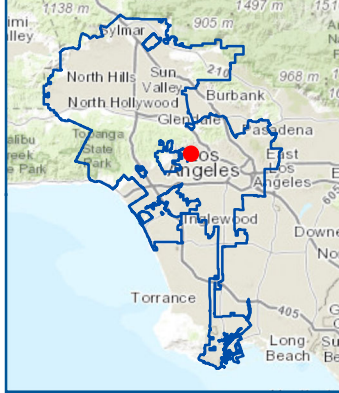




1 inch = 100 feet

LEGEND

- Proposed Pump Station
- Proposed Diversion Structure
- BMP Site Data Points
- Proposed Pipeline Alignment
- Existing Storm Drain Network
- Selected BMP Site
- Proposed BMP Footprint
- Contours

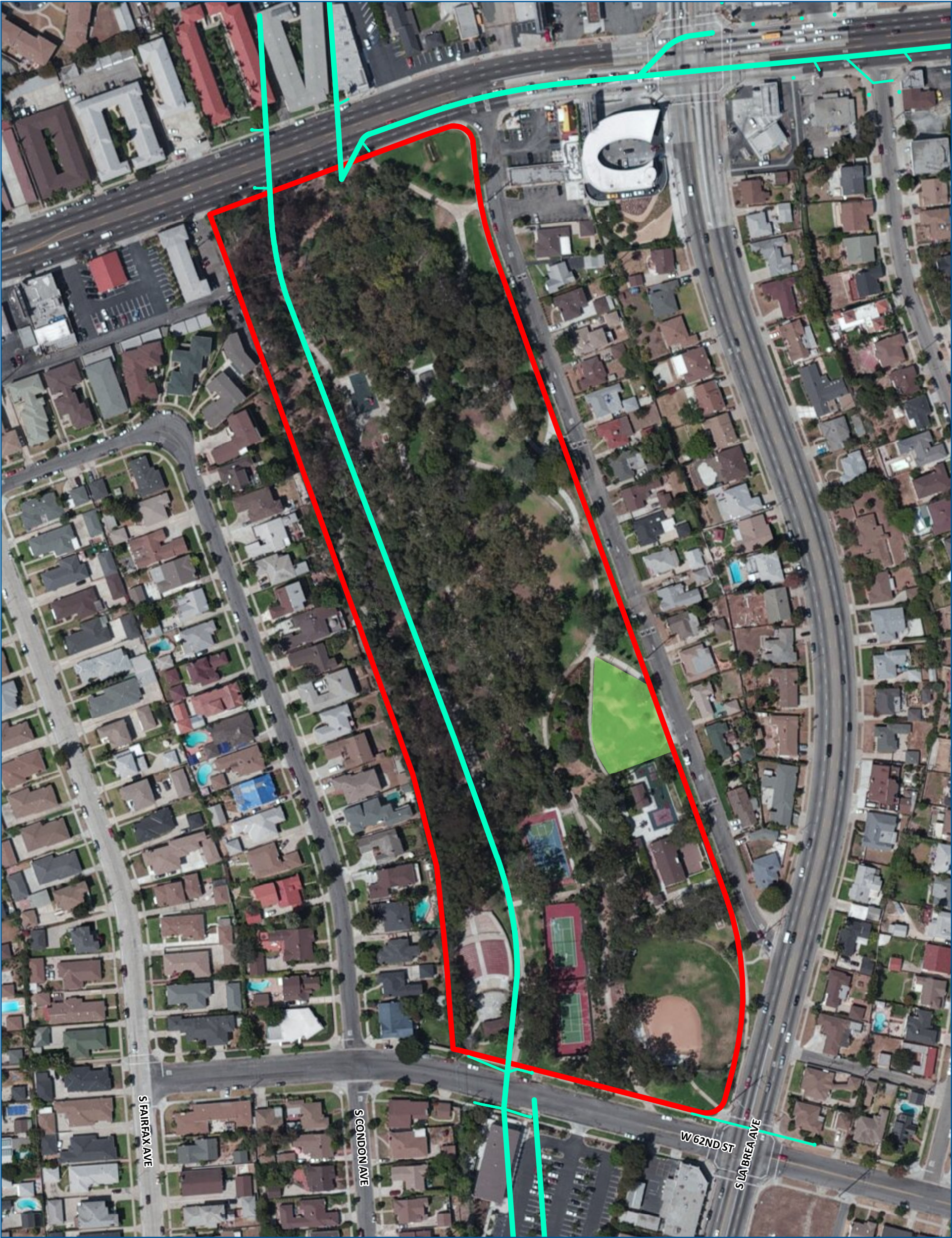


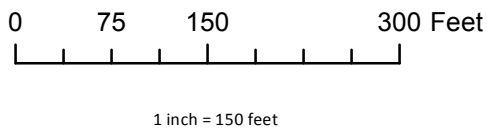
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Enhanced Watershed Management Plan**

**BMP Site Investigation
Poinsettia Park**

PN 182198

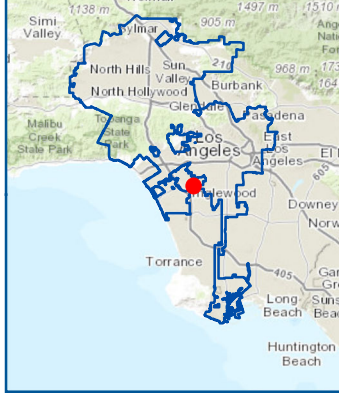
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LEGEND

-  BMP Site Data Points
-  Proposed Pump Station
-  Proposed Pipeline Alignment
-  Existing Storm Drain Network
-  Selected BMP Site
-  Potential BMP Footprint
-  Contours



**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Site Investigation
Ladera Park**

PN 182198

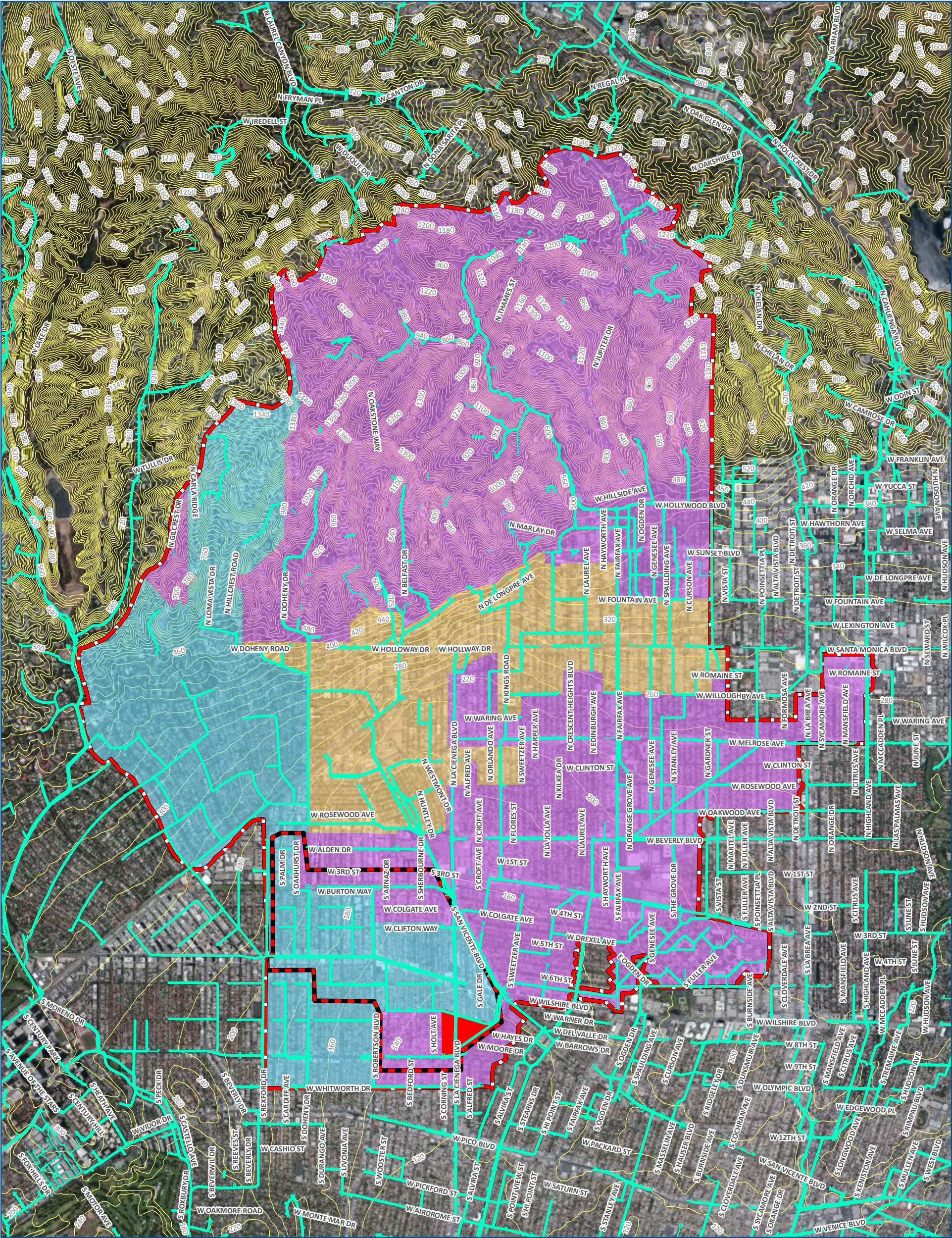
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APPENDIX F

TRIBUTARY DRAINAGE AREA

MAPS PER PROJECT

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LEGEND

Storm Drain Network

Selected BMP Site

Maximum Drainage Area

Alternative Drainage Area

Contour

Drainage Area per City

Beverly Hills

Los Angeles

Unincorporated

West Hollywood

0

0.25

0.5

1 Miles

1 inch = 0.5 miles

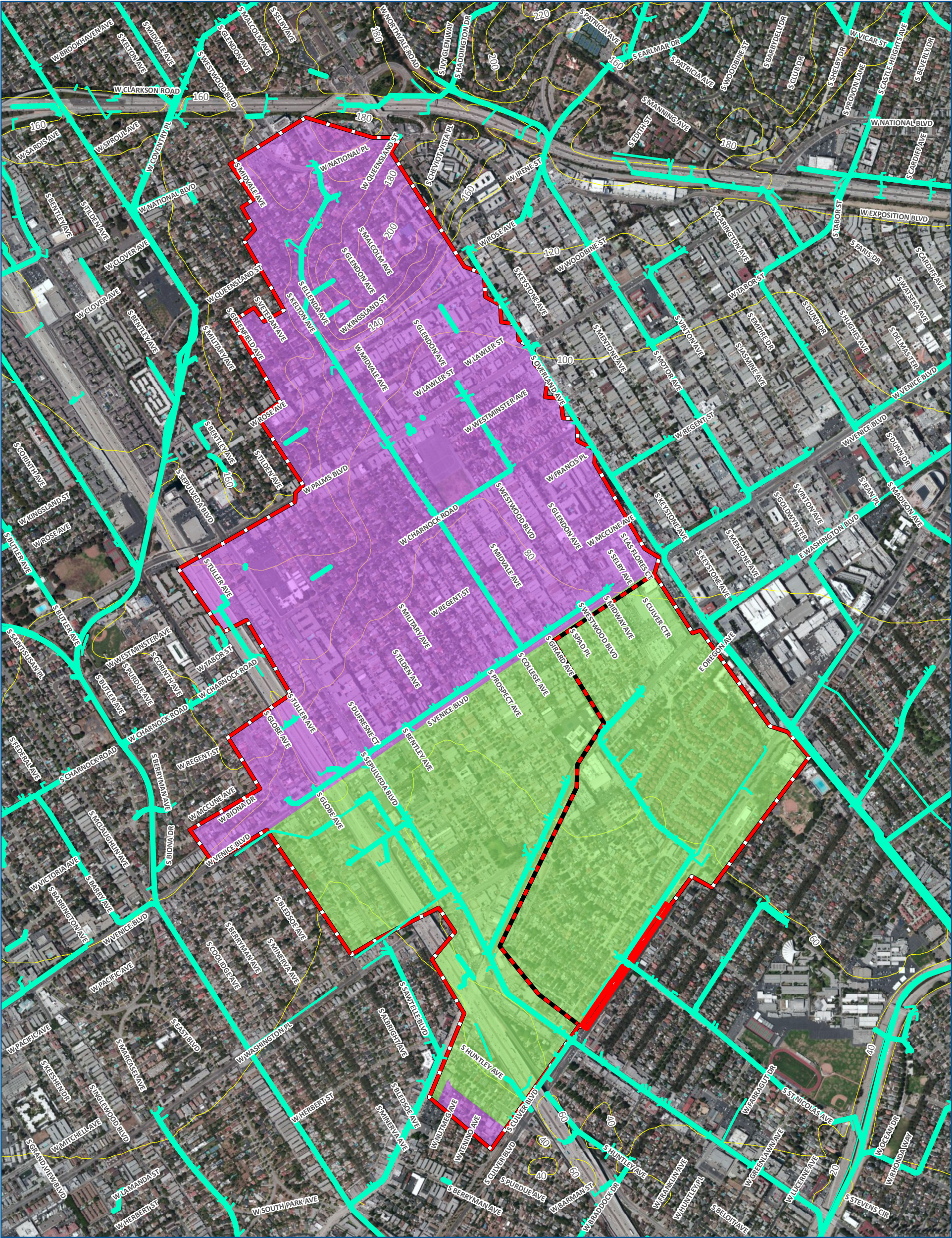
**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Drainage Area
La Cienega Park**

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BH01_LaCienegaPark_drainagearea March 05, 2015 A. Burns



LEGEND

- Catch Basin
- Storm Drain Network
- Selected BMP Site
- Maximum Drainage Area
- Minimum Drainage Area
- Contours

Drainage Area per City

- Culver City
- Los Angeles

0 500 1,000 2,000 Feet

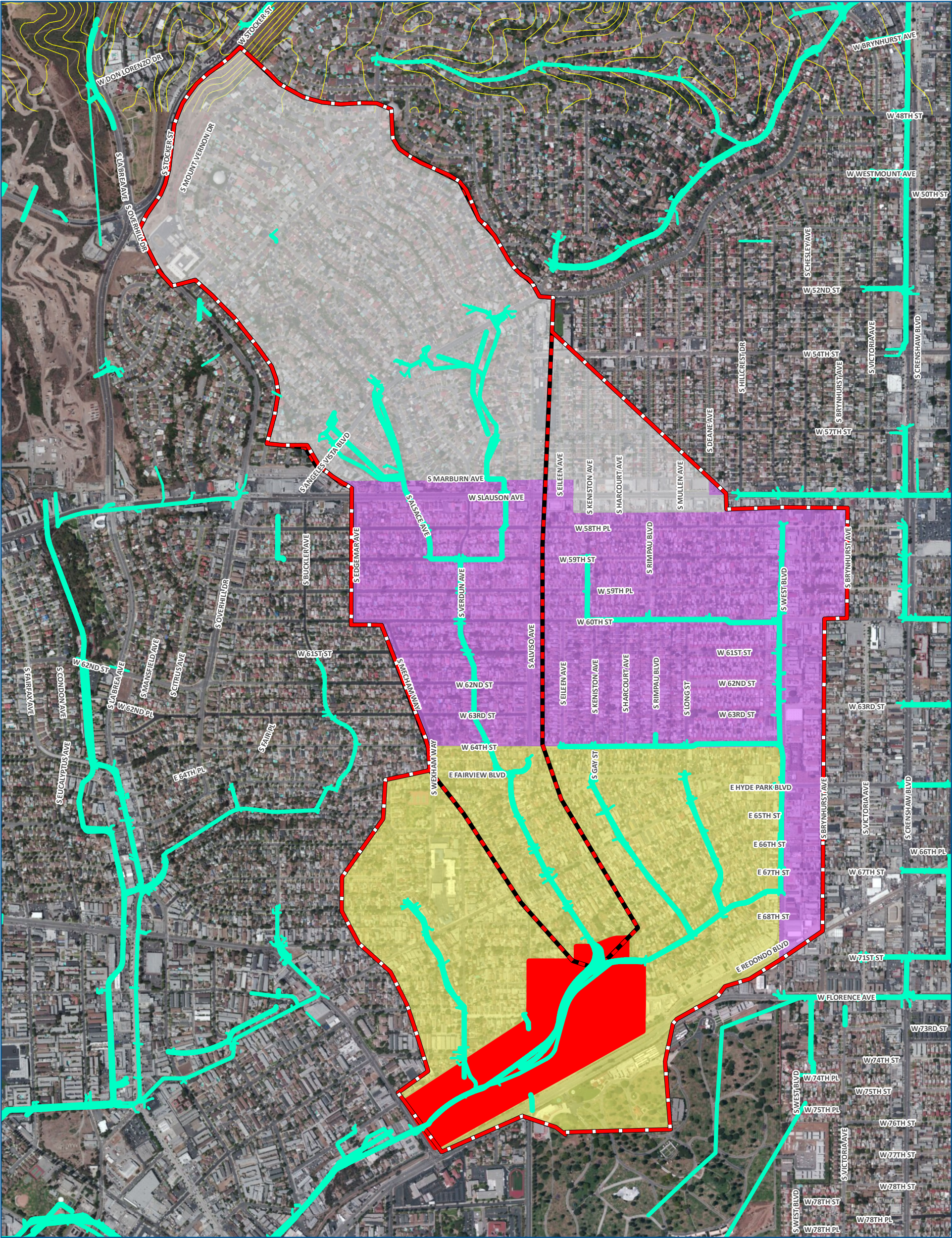
1 inch = 1,000 feet

**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Drainage Area
Culver Boulevard Median**

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LEGEND

	Storm Drain Network	Drainage Area per City	
	Contour		Inglewood
	Maximum Drainage Area		Los Angeles
	Minimum Drainage Area		Unincorporated
	Selected BMP Site		

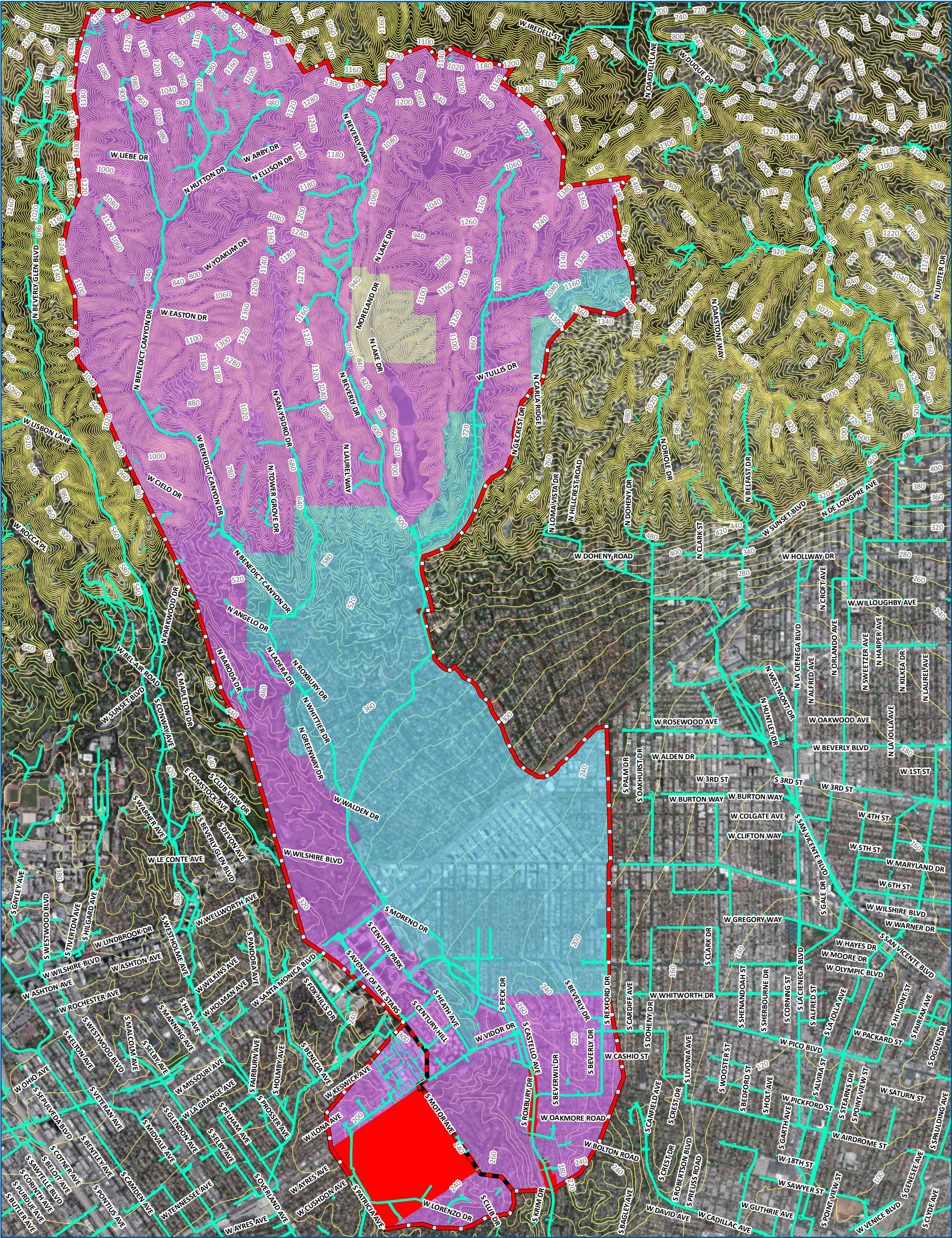
0 500 1,000 2,000 Feet

1 inch = 1,000 feet

Ballona Creek
Enhanced Watershed Management Plan
BMP Drainage Area
Edward Vincent Wetland

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LEGEND

Storm Drain Network

Contour

Maximum Drainage Area

Alternative Drainage Area

Selected BMP Site

Drainage Area per City

Beverly Hills

Los Angeles

Unincorporated

1 inch = 0.5 miles

0

0.25

0.5

1 Miles

Ballona Creek

Enhanced Watershed Management Plan

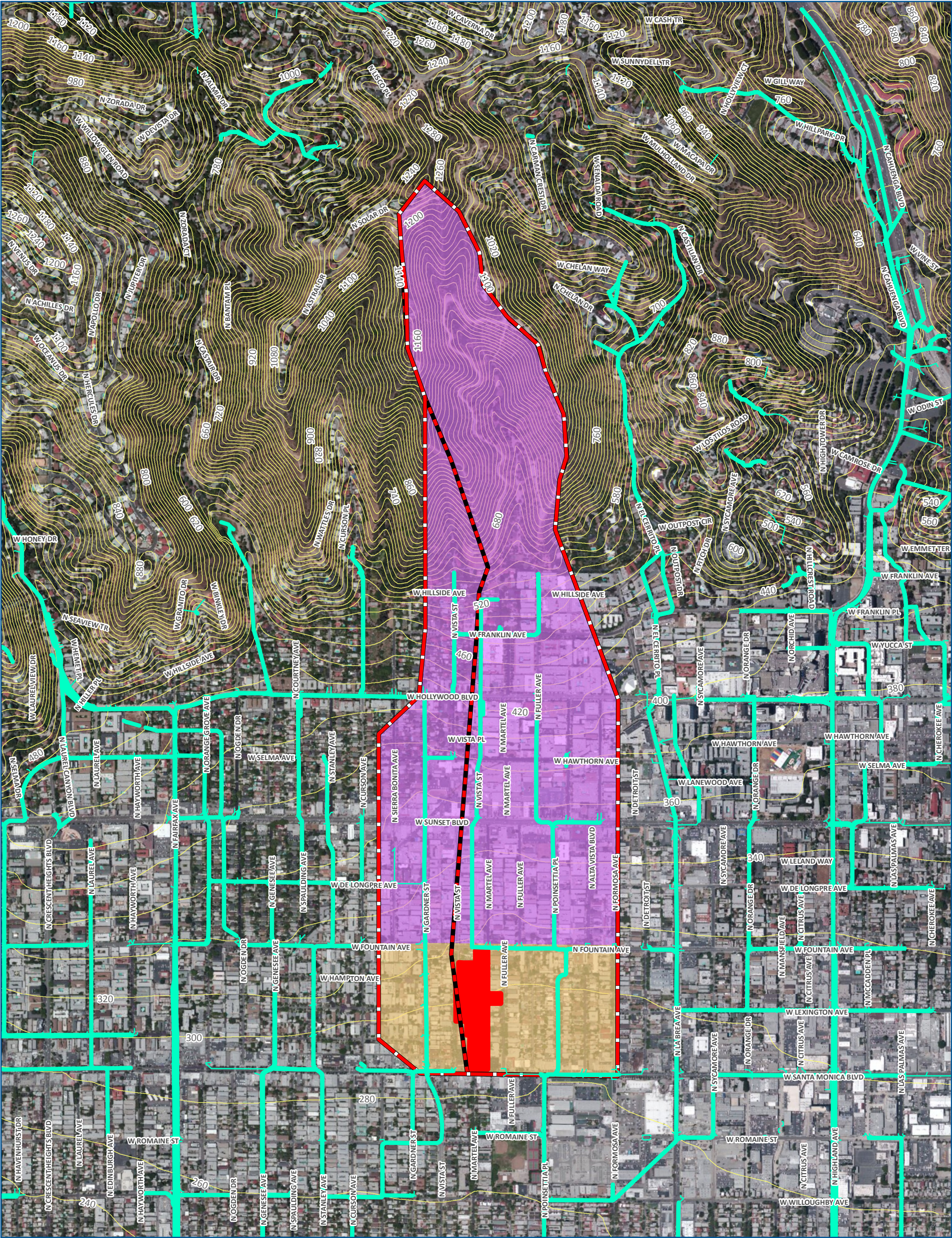
BMP Drainage Area

Rancho Park Golf Course

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LA10_RanchoParkGolfCourse_drainagearea March 05, 2015 A. Burns



LEGEND

- Storm Drain Network
- Contour
- Maximum Drainage Area
- Alternative Drainage Area
- Selected BMP Results

Drainage Area per City

- Los Angeles
- West Hollywood

1 inch = 1,000 feet

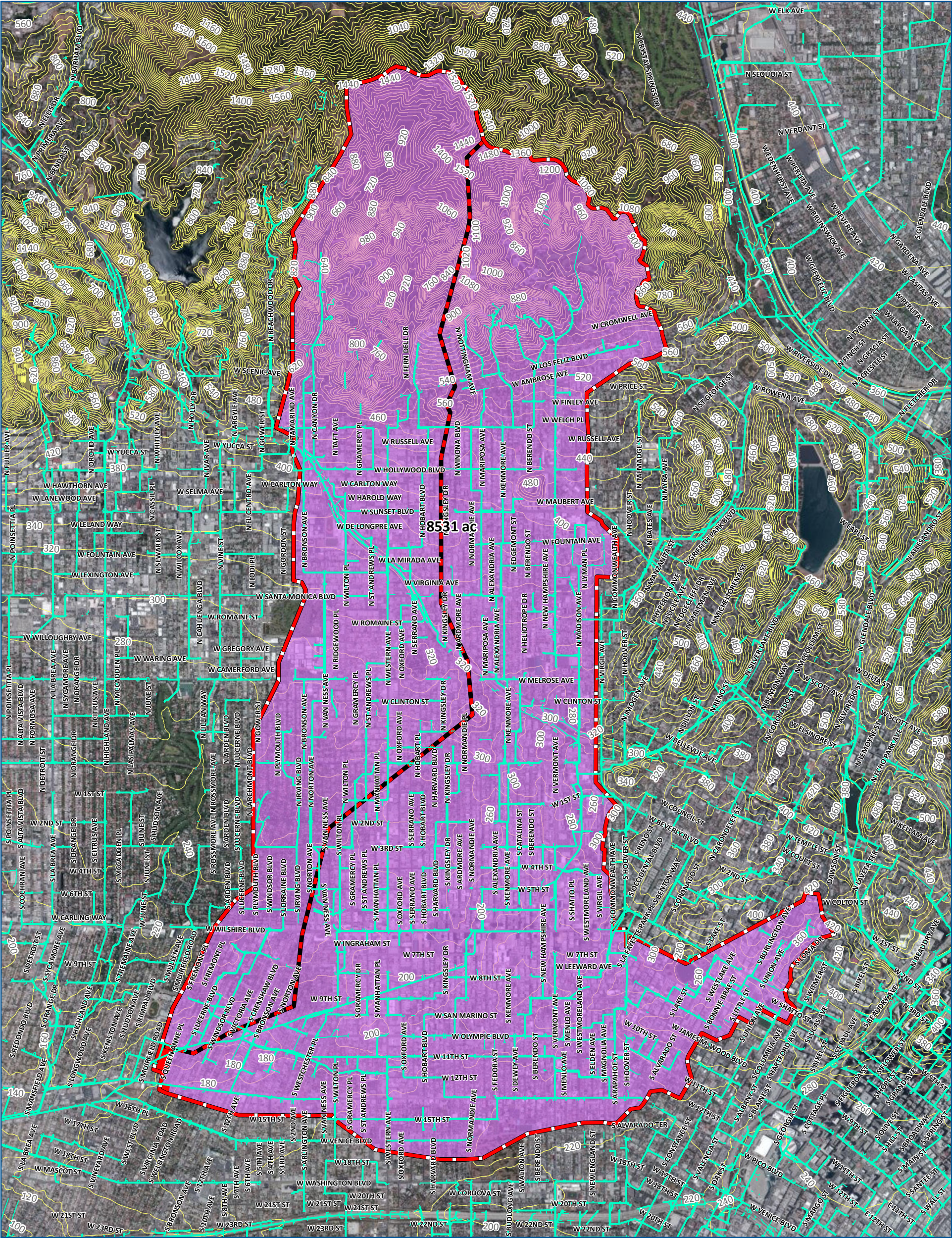
0 500 1,000 2,000 Feet

**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Drainage Area
Plummer Park**

PN 182198

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LEGEND

Storm Drain Network

Contour

Maximum Drainage Area

Alternative Drainage Area

Selected BMP Site

Drainage Area per City

Los Angeles

1 inch = 3,000 feet

01,5003,0006,000

Feet

Ballona Creek

Enhanced Watershed Management Plan

BMP Drainage Area

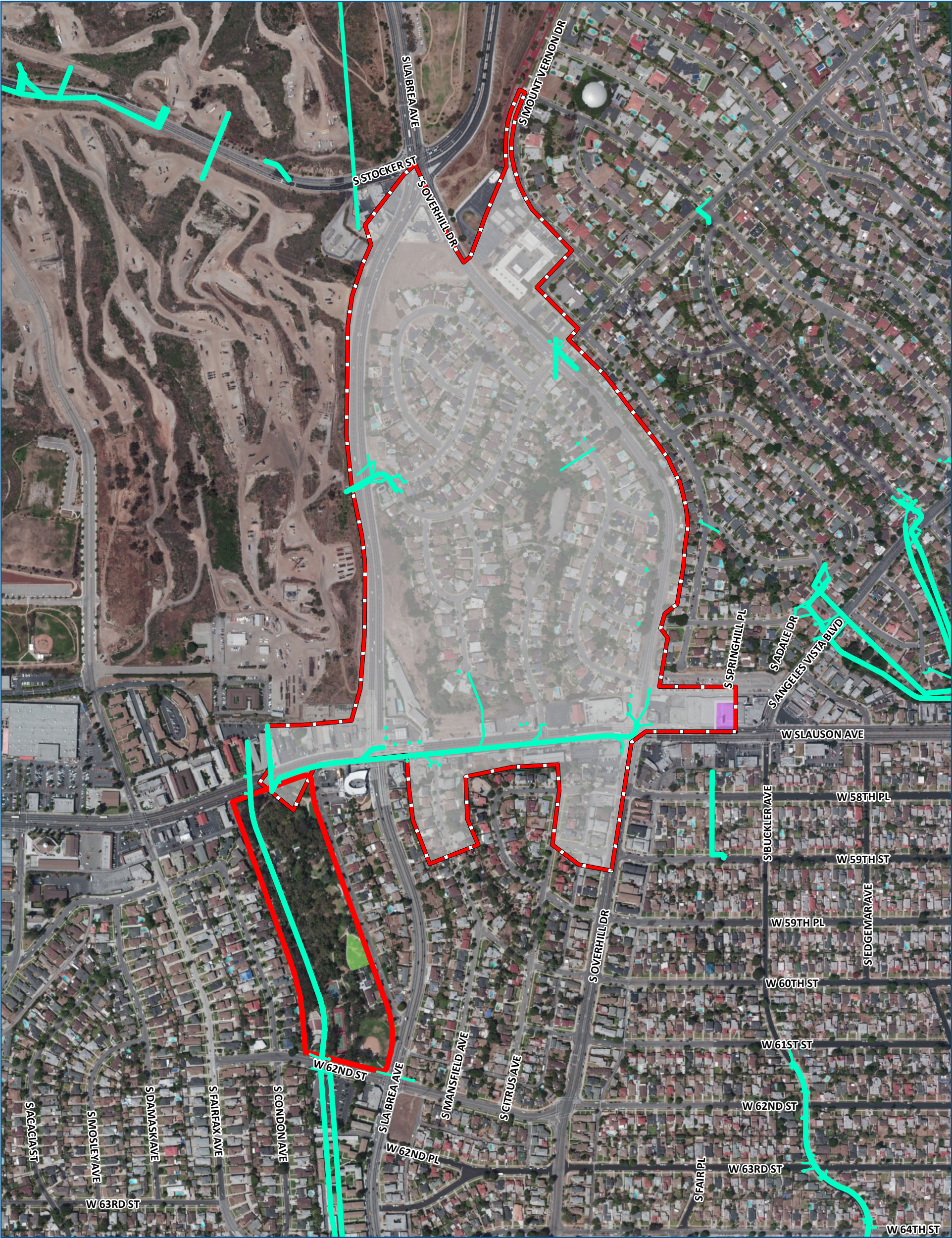
Queen Anne Rec Center

PN 182198

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LA19_QueenAnneRecCenter_drainagearea March 05, 2015 A. Burns



LEGEND

	Existing Storm Drain Network	Drainage Area per City	
	Selected BMP Site		Los Angeles
	Maximum Drainage Area		Unincorporated
	Contours		
	Proposed BMP Footprint		

0 250 500 1,000 Feet

1 inch = 500 feet

**Ballona Creek
Enhanced Watershed Management Plan**

**BMP Drainage Area
Ladera Park**

PN 182198

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APPENDIX G

COST OPINIONS

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Regional Project Cost Estimate Summary				
Regional Project	Engineering Cost	CM Cost	Construction Cost	Total Cost
La Cienega Park/Frank Fenton Field	\$3,307,000	\$2,625,000	\$26,244,000	\$32,176,000
Culver Boulevard Median	\$3,645,000	\$2,896,000	\$28,952,000	\$35,493,000
Edward Vincent Jr. Park	\$4,604,000	\$3,663,000	\$36,624,000	\$44,891,000
Rancho Park Golf Course	\$1,679,000	\$1,323,000	\$13,226,000	\$16,228,000
Plummer Park	\$1,299,000	\$1,019,000	\$10,190,000	\$12,508,000
Queen Anne Recreation Park	\$3,408,000	\$2,706,000	\$27,051,000	\$33,165,000
Lafayette Park	\$2,513,000	\$1,990,000	\$19,895,000	\$24,398,000
Poinsettia Park	\$1,403,000	\$1,102,000	\$11,018,000	\$13,523,000
Ladera Park				
Total Cost:				\$212,382,000

Regional Project Timeline				
Regional Project	Design (years)	Bid (months)	Construction (years)	Total Time (years)
La Cienega Park/Frank Fenton Field	2	6	4.50	7.00
Culver Boulevard Median	2	6	5.00	7.50
Edward Vincent Jr. Park	2	6	6.25	8.75
Rancho Park Golf Course	1	6	2.25	3.75
Plummer Park	1	6	1.75	3.25
Queen Anne Recreation Park	2	6	4.75	7.25
Lafayette Park	2	6	3.50	6.00
Poinsettia Park	1	6	2.00	3.50
Ladera Park				

La Cienega Park/Frank Fenton Field Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$2,625,000	\$2,625,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$657,000	\$657,000
Subtotal:				\$3,307,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$2,625,000	\$2,625,000
Subtotal:				\$2,625,000
Construction				
Mobilization (10%)	LS	1	\$2,386,000	\$2,386,000
Excavation	CY	156,000	\$6	\$936,000
Fill	CY	107,000	\$6	\$642,000
Soil Export	CY	50,000	\$25	\$1,250,000
Landscaping and Irrigation	SF	168,000	\$2	\$336,000
Diversion Structure	LS	1	\$40,000	\$40,000
Diversion Pipe	LF	200	\$200	\$40,000
Storage (Pipes)	GAL	8,030,000	\$1.75	\$14,053,000
Contingency (25%)	LS	1	\$6,561,000	\$6,561,000
Subtotal:				\$26,244,000
Total:				\$32,176,000

Culver Boulevard Median Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$2,896,000	\$2,896,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$724,000	\$724,000
Subtotal:				\$3,645,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$2,896,000	\$2,896,000
Subtotal:				\$2,896,000
Construction				
Mobilization (10%)	LS	1	\$2,632,000	\$2,632,000
Excavation	CY	89,000	\$6	\$534,000
Fill	CY	36,000	\$6	\$216,000
Soil Export	CY	54,000	\$25	\$1,350,000
Landscaping and Irrigation	SF	62,000	\$2	\$124,000
Diversion Structure	LS	1	\$40,000	\$40,000
Diversion Pipe	LF	90	\$200	\$18,000
Storage (Concrete)	GAL	9,600,000	\$1.75	\$16,800,000
Contingency (25%)	LS	1	\$7,238,000	\$7,238,000
Subtotal:				\$28,952,000
Total:				\$35,493,000

Edward Vincent Jr. Park Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$3,663,000	\$3,663,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$916,000	\$916,000
Subtotal:				\$4,604,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$3,663,000	\$3,663,000
Subtotal:				\$3,663,000
Construction				
Mobilization (10%)	LS	1	\$3,330,000	\$3,330,000
Excavation	CY	230,000	\$6	\$1,380,000
Fill	CY	109,000	\$6	\$654,000
Soil Export	CY	122,000	\$25	\$3,050,000
Landscaping and Irrigation	SF	273,000	\$2	\$546,000
Diversion Structure	LS	1	\$40,000	\$40,000
Diversion Pipe	LF	710	\$200	\$142,000
Storage (Pipes)	GAL	9,850,000	\$1.75	\$17,238,000
Pump Station	LS	1	\$1,000,000	\$1,000,000
Rip-Rap for Stabilization Weirs	CY	800	\$110	\$88,000
Contingency (25%)	LS	1	\$9,156,000	\$9,156,000
Subtotal:				\$36,624,000
Total:				\$44,891,000

Rancho Park Golf Course Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$1,323,000	\$1,323,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$331,000	\$331,000
Subtotal:				\$1,679,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$1,323,000	\$1,323,000
Subtotal:				\$1,323,000
Construction				
Mobilization (10%)	LS	1	\$1,203,000	\$1,203,000
Excavation	CY	74,000	\$6	\$444,000
Fill	CY	50,000	\$6	\$300,000
Soil Export	CY	25,000	\$25	\$625,000
Landscaping and Irrigation	SF	74,000	\$2	\$148,000
Diversion Structure	LS	1	\$40,000	\$40,000
Pipes (Diversion and Re-Routed Storm Drain)	LF	1,280	\$200	\$256,000
Storage (Concrete)	GAL	3,862,000	\$1.75	\$6,759,000
Remove Existing Storm Drain	LF	720	\$200	\$144,000
Contingency (25%)	LS	1	\$3,307,000	\$3,307,000
Subtotal:				\$13,226,000
Total:				\$16,228,000

Plummer Park Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$1,019,000	\$1,019,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$255,000	\$255,000
Subtotal:				\$1,299,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$1,019,000	\$1,019,000
Subtotal:				\$1,019,000
Construction				
Mobilization (10%)	LS	1	\$927,000	\$927,000
Excavation	CY	16,000	\$6	\$96,000
Soil Export	CY	16,000	\$25	\$400,000
Diversion Structure	LS	1	\$40,000	\$40,000
Diversion Pipe	LF	420	\$200	\$84,000
Storage (Concrete)	GAL	2,340,000	\$1.75	\$4,095,000
Pump Station	LS	1	\$2,000,000	\$2,000,000
Contingency (25%)	LS	1	\$2,548,000	\$2,548,000
Subtotal:				\$10,190,000
Total:				\$12,508,000

Queen Anne Recreation Park Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$2,706,000	\$2,706,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$677,000	\$677,000
Subtotal:				\$3,408,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$2,706,000	\$2,706,000
Subtotal:				\$2,706,000
Construction				
Mobilization (10%)	LS	1	\$2,460,000	\$2,460,000
Excavation	CY	33,000	\$6	\$198,000
Fill	CY	10,000	\$6	\$60,000
Soil Export	CY	24,000	\$25	\$600,000
Landscaping and Irrigation	SF	63,000	\$2	\$126,000
Diversion Structure	LS	1	\$40,000	\$40,000
Pipes (Diversion and Re-Routed Storm Drain)	LF	470	\$200	\$94,000
Storage (Pipes)	GAL	3,800,000	\$1.75	\$6,650,000
Pump Station	LS	1	\$10,000,000	\$10,000,000
Remove Existing Storm Drain	LF	300	\$200	\$60,000
Contingency (25%)	LS	1	\$6,763,000	\$6,763,000
Subtotal:				\$27,051,000
Total:				\$33,165,000

Lafayette Park Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$1,990,000	\$1,990,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$498,000	\$498,000
Subtotal:				\$2,513,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$1,990,000	\$1,990,000
Subtotal:				\$1,990,000
Construction				
Mobilization (10%)	LS	1	\$1,809,000	\$1,809,000
Excavation	CY	135,000	\$6	\$810,000
Fill	CY	97,000	\$6	\$582,000
Soil Export	CY	39,000	\$25	\$975,000
Landscaping and Irrigation	SF	80,000	\$2	\$160,000
Diversion Structure	LS	1	\$40,000	\$40,000
Pipes (Diversion and Re-Routed Storm Drain)	LF	600	\$200	\$120,000
Storage (Concrete)	GAL	5,918,000	\$1.75	\$10,357,000
Remove Existing Storm Drain	LF	340	\$200	\$68,000
Contingency (25%)	LS	1	\$4,974,000	\$4,974,000
Subtotal:				\$19,895,000
Total:				\$24,398,000

Poinsettia Park Cost Estimate				
Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	\$1,102,000	\$1,102,000
Permits	LS	1	\$25,000	\$25,000
Environmental Assessment (CEQA) (25% of Design)	LS	1	\$276,000	\$276,000
Subtotal:				\$1,403,000
Construction Support				
Construction Administration and Inspections (10%)	LS	1	\$1,102,000	\$1,102,000
Subtotal:				\$1,102,000
Construction				
Mobilization (10%)	LS	1	\$1,002,000	\$1,002,000
Excavation	CY	42,000	\$6	\$252,000
Fill	CY	13,000	\$6	\$78,000
Soil Export	CY	30,000	\$25	\$750,000
Landscaping and Irrigation	SF	113,000	\$2	\$226,000
Diversion Structure	LS	1	\$40,000	\$40,000
Diversion Pipe	LF	70	\$200	\$14,000
Storage (Concrete)	GAL	3,372,000	\$1.75	\$5,901,000
Contingency (25%)	LS	1	\$2,755,000	\$2,755,000
Subtotal:				\$11,018,000
Total:				\$13,523,000

Appendix 5.A

Comparison of 2001 Permit MCMs to 2012 Permit MCMs

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Appendix 5.A: Comparison of 2001 Permit MCMs to 2012 Permit MCMs

MCM	2012 Permit Requirement	2001 Permit Requirement
D.2 Progressive Enforcement (Applies D.6, D.7, D.8, and D.10)	Develop and maintain a Progressive Enforcement Policy	
	Conduct follow-up inspection within 4 weeks of date of initial inspection	
	Take progressive enforcement	
	Retain records	
	Refer violations to Regional Board	
	Investigate complaints from Regional Board (RB)	
	Assist RB with Enforcement Actions	
D.5 Public Information and Participation Program (PIPP)	Participate in a Countywide PIPP, WMP PIPP, or individual PIPP that measurably increases knowledge and changes behavior, and involves a diversity of socio economic and ethnic communities	Implement public information and participation program
		Media campaign for Storm Water Pollution Prevention (SPP)
		Strategy to educate ethnic communities about SPP
		Enhance outreach for proper disposal of cigarette butts
		Conduct educational activities within jurisdiction and participate in county-wide events
		Organize Public Outreach Strategy meetings quarterly
		Conduct Media Outreach to 35 million impressions per year
		Coordinate watershed-specific pollution prevention outreach programs
		Corporate Outreach Program to target retail gas outlets and restaurant chains
		Coordinate an SPP program for a Business Assistance Program
		Behavioral change assessment strategy towards SPP
	Maintain reporting hotline	Maintain the (888) CLEAN-LA hotline
	Publish hotline info on web, telephone book	
	ID staff/department that serve as the contact (publish this info)	Provide a list of reporting contacts to public through www.888CleanLA.com
		Coordinate and provide contact information for public education activities
	Organize events (e.g., clean ups)	
	Residential Outreach (Individually or with group):	
	Public Service Announcements	
	(Develop) Public education materials on: vehicle fluids; household waste; construction waste; pesticides, fertilizers, and integrated pest management (IPM); green wastes; and animal wastes	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Distribute public education materials at points of purchase	
	Maintain stormwater website	
	Provide schools with materials to educate children (K-12); can use state produced materials	Distribute SPP information to K-12 schools
		Strategy to measure effectiveness of in-school programs
		Convene an Advisory Committee
		Mark all storm drain inlets with a "no dumping" message
D.6 Industrial/ Commercial	Track Critical Sources - maintain inventory (watershed based or lat/long recorded)	Maintain a list of industrial/commercial facilities to be inspected
	Educate - notify critical sources of BMP requirements	
	Implement a Business Assistance Program for select sectors or small businesses - technical assistance, and distribute materials to specific sectors	
	Inspect Commercial Sources	Inspect restaurants twice during Permit cycle
	Inspect Industrial Sources - initial mandatory inspection	Inspect/visit industrial/commercial facilities appropriately
	Secondary mandatory inspection	
	No Exposure - evaluate and conduct 2nd inspection at 25% of facilities	
	As needed conduct Progressive Enforcement follow-up inspections (see D.2)	Initiate progressive enforcement for facilities failing to implement BMP's
D.7 Planning and Land Development		Implement development planning program that requires SUSMP
		Develop peak flow control criteria
		Amend codes and ordinances to give legal effect to SUSMP changes in permit
		Implement revised Standard Urban Storm Water Mitigation Plan (SUSMP)
		Submit an Environmentally Sensitive Areas (ESAs) Delineation map to RWQCB
		Implement SUSMP requirements for industrial/commercial projects >1 acre
		Update CEQA guidelines to include specific storm water related issues
		Update General Plan to include specific storm water related issues
		Train targeted employees in permit requirements for Development Planning
		Develop and make SUSMP guidelines available to the developer
		Develop a technical manual for the siting and design of BMPs
	Update ordinance/design standards to conform with new requirements (LID and Hydromod)	
	Optional: Establish alternative compliance for technical infeasibility, e.g., allow onsite biofiltration or offsite infiltration or gw replenishment or retrofit	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Optional if allowing offsite mitigation: Develop a prioritized list of offsite mitigation projects	
	Optional if allowing offsite mitigation: Develop a schedule for completion of offsite projects (must be with 4 yrs of the Certificate of Occupancy of the first project that contributed funds)	
	Optional if allowing offsite mitigation: Notice offsite projects to RB website	
	Optional if allowing offsite mitigation: List of mitigation projects descriptions and estimated pollutant and flow reductions	
	Optional if allowing offsite mitigation: Provide aggregated comparison of alternative compliance to results that would have been expected with onsite retention of the SWQDv	
	Optional: Submit documentation that a previously adopted LID ordinance provides equivalent pollutant loading and flow reduction	
	Plan Review process - check LID and BMP sizing, etc.,	
	Establish internal agreements with structure for communication and authority for departments overseeing plan approval and project construction	
	Require O&M plan for LID, treatment and hydromod BMPs	
	Implement tracking and enforcement program for LID, treatment and hydromod BMPs	
	Inspect all development sites upon completion and prior to occupancy certificates	
	Verify O&M of BMPs operated by Permittee through inspection	
	Develop maintenance inspection checklist	
	Require private parties that operate BMPs to submit verification of O&M; enforce as needed	
	As needed conduct Progressive Enforcement follow-up inspections (see D.2)	
D.8 Construction		Implement a development construction program
		Require proof of a Waste Discharger ID (WDID) number prior to filing Notice of Intent (NOI)
		Require proof of an NOI and a copy of SWPPP for a transfer of ownership
		Track the number of issued building and grading permits
	Update erosion and sediment control ordinance/procedures to conform with new requirements	
	Sites < 1 acre; inspect based upon water quality threat	
	Establish priority inspection process	
	Site < 1 acre; Require sites with soil disturbing activities to implement minimum BMPs	
	Require construction sites to prepare erosion sediment control plan(ESCP); review and approve (≥ 1 acre)	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Verify construction sites coverage under the CGP and 401 cert	Refer General Construction Activities Stormwater Permit (GCASP) violations to RWQCB
	Develop/implement ESCP review checklist	
	Require construction sites to adhere to standards and make standards readily available	
	Conduct inspections at public and private sites (at least 1x/2 weeks for high threat sites (more frequently when rain is predicted or occurs; at least monthly for lower threat; also must inspect during all phases of construction - at least 3 times)	
	Develop/implement SOPs/inspection checklist	
	Track number of inspections for inventoried sites and verify minimum inspections are completed	
	As needed conduct Progressive Enforcement follow-up inspections (see D.2)	
	Train plan review staff and inspectors	Train targeted employees in permit requirements for Development Construction
	Staff must be knowledgeable in QSD/P key objectives, local BMPs standards	
	Require public construction sites to implement Planning and Land Development requirements, implement Erosion and Sediment Control BMPs, and obtain Construction General Permit coverage	Implement Development Planning Program at Permittee-owned construction projects
D.9 Public Agency Activities		Implement Development Construction Program at Permittee-owned construction projects
		Develop, if needed, and implement SWPPPs for field facilities
	Maintain inventory of Permittee owned facilities (including parks and recreation facilities,)	
	Update inventory	
	Develop retrofit opportunity inventory; evaluate and rank	
	"Cooperate with private land owners to encourage site specific retrofitting"; includes pilot projects and outreach	
	Obtain IGP coverage for public facilities where appropriate	
	Develop procedures to assess impact of flood mgt projects on water quality of receiving waters; evaluate to determine if retrofitting is feasible	
	Evaluate existing structural flood control facilities to determine if retrofitting facility to provide additional pollutant removal is feasible	
	Implement source control BMPs at Permittee owned facilities/activities	
	Require city-hired contractors to implement source control BMPs	
	Prevent vehicle/equipment washing discharges to the MS4, including fire fighting and emergency response vehicles	
	Ensure new/redeveloped/replaced wash facilities are plumbed to the sanitary sewer or self contained.	Equip wash areas with a clarifier, pre-treatment device, or be connected to sewer
	Implement IPM program	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Ordinances, policies, and procedures reflect IPM techniques and include commitments and schedules to reduce the use of pesticides that cause impairments	
	Annually update inventory of pesticides used by agency; quantify pesticides used by staff and contractors; demonstrate IPM alternatives to reduce pesticide use	
	Use SOPs for pesticide application	Store pesticides/herbicides/fertilizers indoors and apply only in accordance with label directions
	Ensure no application of pesticides or fertilizers when two or more days with a 50% chance of rain is predicted by NOAA; within 48 hrs of 1/2 inch of rain; or when water is flowing off the site	
	Ensure staff applying pesticides are certified or working under supervision of a certified applicator in the appropriate category	
	Update catch basin map add GPS locations and update priority	
	Inspect/Clean catch basin in areas not subject to Trash TMDL- Priority A: 3x during wet season, 1x during dry 1x; Priority B: 1x during wet 1x and 1x during dry; Priority C: 1x per yr. Maintain records.	Designate Catch Basins as priority A, B, or C
	Required trash management at public events	Ensure that Catch Basins (CBs) are cleaned appropriately
	Place and maintain trash receptacles/capture devices at newly identified high trash generating areas	Place temporary screens on CBs prior to special events or cleanout immediately afterwards
		Place and maintain trash receptacles at all transit stops with shelters
		Designate curbed streets as priority A, B, or C based on litter accumulation
	Label storm drains	(Required under PIPP in 2001)
	Inspect labels prior to each wet season	Inspect the legibility of CB stencils and re-label within 180 days if necessary
	Record and relabel illegible labels within 180 days of inspection	
	Post signs at access points to water bodies (open channels, creeks; lakes)	
	In areas not subject to the Trash TMDL, install trash excluders on catch basins or outfalls in areas defined as Priority A, or implement substantially equivalent BMPs	
	Inspect and Remove trash and debris from open channels and other drainage structures 1x/yr before rainy season.	Visually monitor and clean all open channels annually for debris
	Eliminate discharge of contaminants during MS4 maintenance	
	Implement controls to limit infiltration of seepage from sanitary sewers to the storm drains	Implement a sewer overflow prevention and response program
	Implement routine preventative maintenance for both systems, survey sanitary sewer and MS4. May use SSO General WDR to fulfill this requirement.	
	Implement inspection and maintenance program for Permittee owned BMPs	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Manage residual water in treatment control BMPs removed during maintenance	
	Street sweeping - Priority A: 2x/mo; B: 1x/mo; C: as needed, not less than 1x/yr	
	Implement road construction maintenance BMPs (e.g., restrict paving activity to exclude periods of rain)	
	Inspect and/or clean Permittee owned parking lots 2x/mo	Inspect and, if needed, clean Permittee owned parking lots twice per month, but at least once
	Train employees and contractors on stormwater requirements	Train targeted employees in permit requirements for Public Agency Activities
	Train employees and contractors on pesticide use	
		Recover saw cutting waste and dispose it offsite
D.10 Illicit Connections and Illicit Discharges Elimination		Conduct a dry weather diversion study and create a priority list of drains for diversion
	Continue IC/ID program	Develop an Implementation Program which specifies how revisions of the IC/ID SQMP are implemented
		Create a database for permitted storm drain connections and map IC/ID
		Field screen the storm drain system for illicit connections in open channels
		Field screen the storm drain system for illicit connections in underground storm drains in priority areas
		Field screen the storm drain system for illicit connections in underground s/d larger than 36 inch diameter
		Review all permitted connections to the storm drain system for compliance
	Written procedures for conducting investigations and eliminations	
	Initiate investigation within 72 hours from becoming aware of the discharge	Respond to illicit discharges within one business day of discovery
		Investigate illicit discharges as soon as practicable
	Implement solutions to eliminate discharge; conduct follow-up investigation to verify elimination; follow Progressive Enforcement Plan (see D.2)	
	When discharge originates upstream of jurisdiction, notify the upstream jurisdiction and Regional Board within 30 days	
	Initiate investigation within 21 days for illicit connection	Investigate illicit connections 21 days after discovery
	Permit or document illicit connection that only discharge stormwater or allowed non-stormwater	
	Eliminate illicit connection within 180 days of investigation	Terminate illicit connections 180 days after confirmation
	Facilitate public reporting via hotline	
	Signage adjacent to open channels provide info re: public reporting	
	Document calls and actions associated with hotline	

MCM	2012 Permit Requirement	2001 Permit Requirement
	Implement procedures on responding to complaints; evaluate and update procedures	
	Implement a spill response plan	
	Train staff and contractors on ID/IC	Train targeted employees in the permit requirements for IC/ID
	Create a list of positions and contractors that require ID/IC training	
		Perform IC/ID Trend Analysis

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Appendix 6.A

Model Calibration and Parameters

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Table 6A-14. Regional Board model parameter ranges

Parameter	Units	Range of Initial Values	Model Values
Hydrology Parameters			
Interception storage capacity	in.	0.01-0.40	0.05-0.2
Manning's n for overland flow	--	0.01-0.15	0.1-0.2
Upper zone nominal soil moisture storage	in.	0.05-2.0	0.5
Fraction of GW inflow to deep recharge	--	0.0-0.50	0.0
Fraction of remaining ET from baseflow	--	0.0-0.20	0.0
Fraction of remaining ET from active GW	--	0.0-0.20	0.0
Lower zone nominal soil moisture storage	in.	2.0-15.0	7.0
Interflow inflow parameter	--	1.0-10.0	1.0
Interflow recession parameter	--	0.3-0.85	0.6-0.7
Lower zone ET parameter	--	0.1-0.9	0.25-0.6
Water Quality Parameters			
Initial storage of water quality constituent on land surface	lbs	0.0-0.0005	0.0
Wash-off potency factor for sediment associated constituent	lbs/ton	0.0-10.0	0.03-2.57
Scour potency factor for sediment associated constituent	lbs/ton	NA	0.03-2.57
Accumulation rate of water quality constituent of land surface	lbs/ac/day	0.0-0.0005	n/a
Maximum storage of water quality constituent on land surface	lbs/ac/day	0.0-0.0005	n/a
Rate of surface runoff that removes 90% of stored mass	in/hr.	0.0-0.5	n/a
General first order in-stream loss rate of constituent	1/day	0.2-0.2	0.1-0.2
Sediment Parameters			
Coefficient in the soil detachment equation	--	0.05-0.75	0.1-0.35
Exponent in the soil detachment equation	--	1.0-3.0	1.81
Coefficient in the sediment wash-off equation	--	0.1-10.0	0.35-0.85
Exponent in the sediment wash-off equation	--	1.0-3.0	2.0
Coefficient in the sediment scour equation	--	0.0-10.0	0.0
Exponent in the sediment scour equation	--	1.0-5.0	2.0
Solids accumulation rate on the land surface	lbs/ac/day	0.0-30.0	0.003
Fraction of solids removed from land surface per day	--	0.01-1.0	0.025
Coefficient in the soil detachment equation	--	0.05-0.75	0.1-0.35

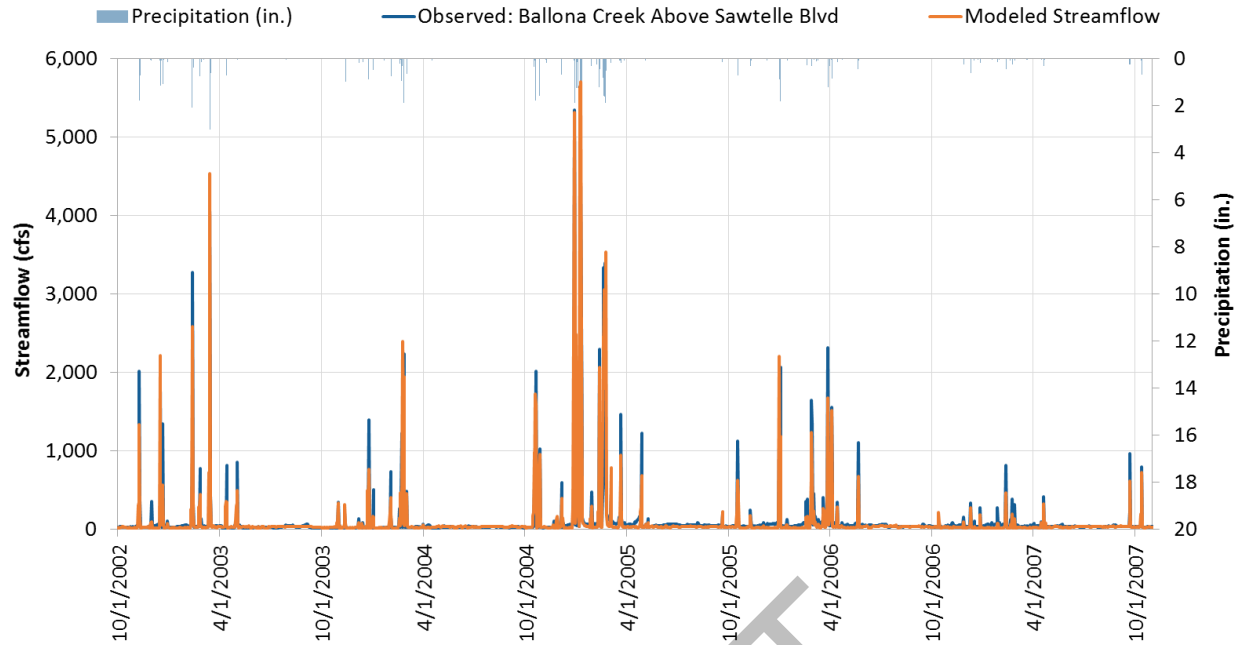


Figure 6A-14. Daily flow at Ballona Creek below Sawtelle Blvd. (Station ID: F-38C).

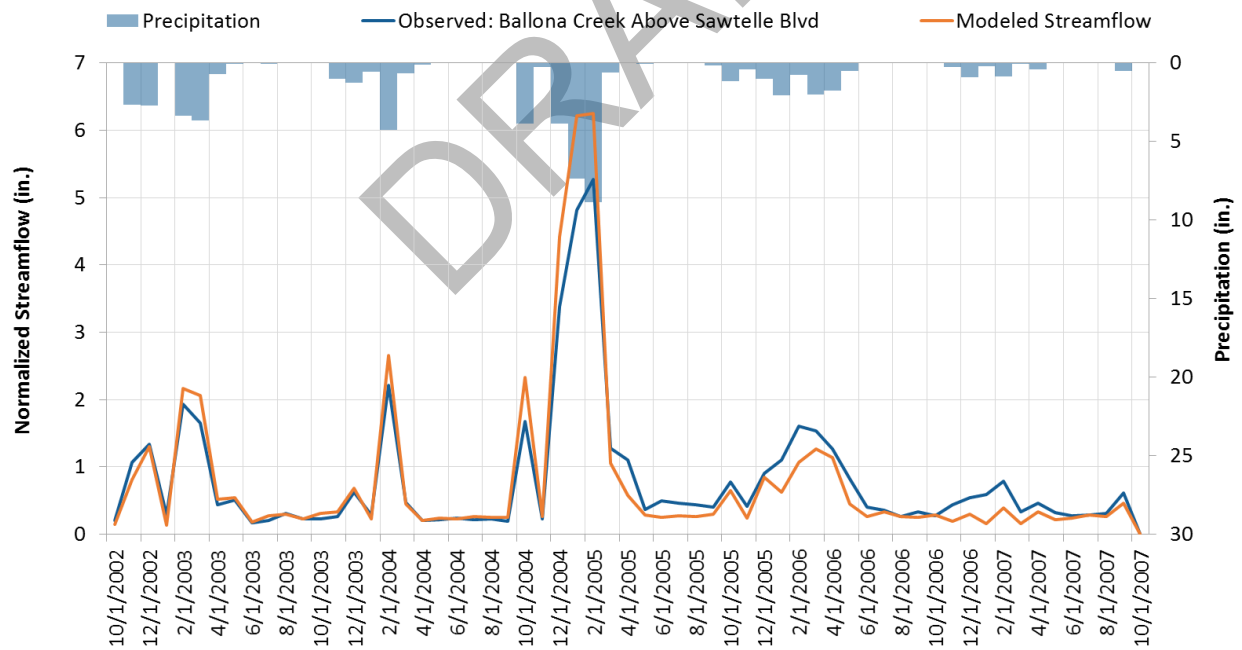


Figure 6A-15. Monthly flow at Ballona Creek below Sawtelle Blvd. (Station ID: F-38C).

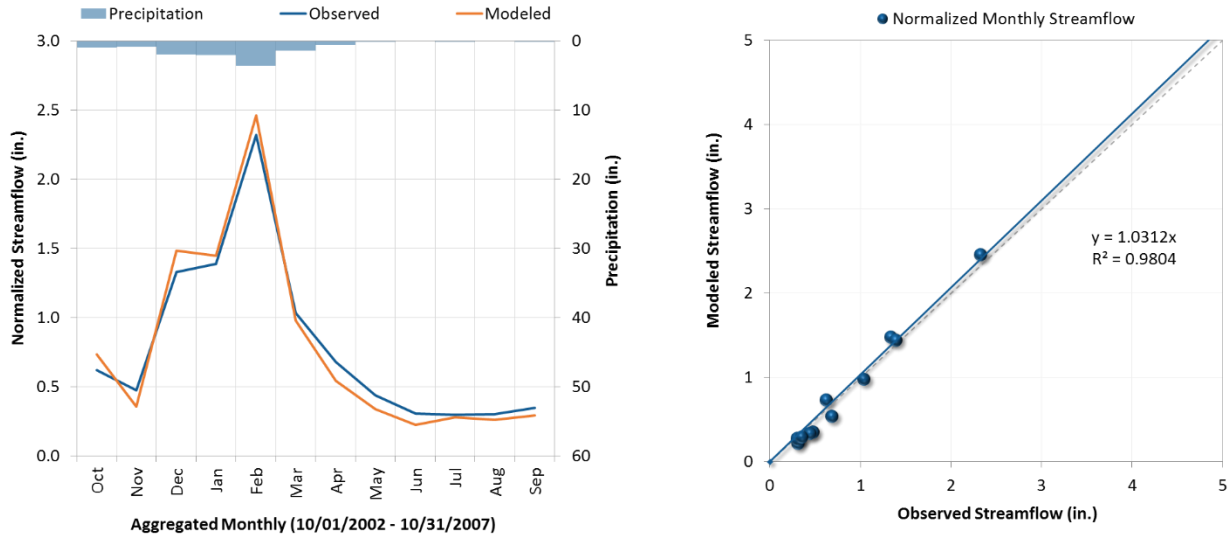


Figure 6A-16. Average monthly flow at Ballona Creek below Sawtelle Blvd. (Station ID: F-38C).

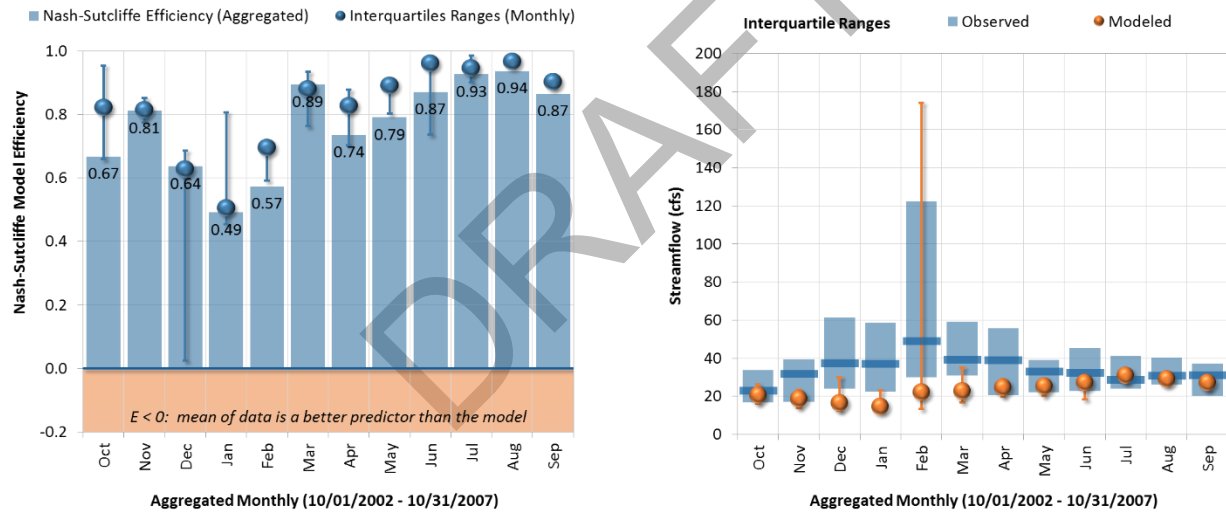


Figure 6A-17. Monthly flow interquartiles at Ballona Creek below Sawtelle Blvd. (Station ID: F-38C).

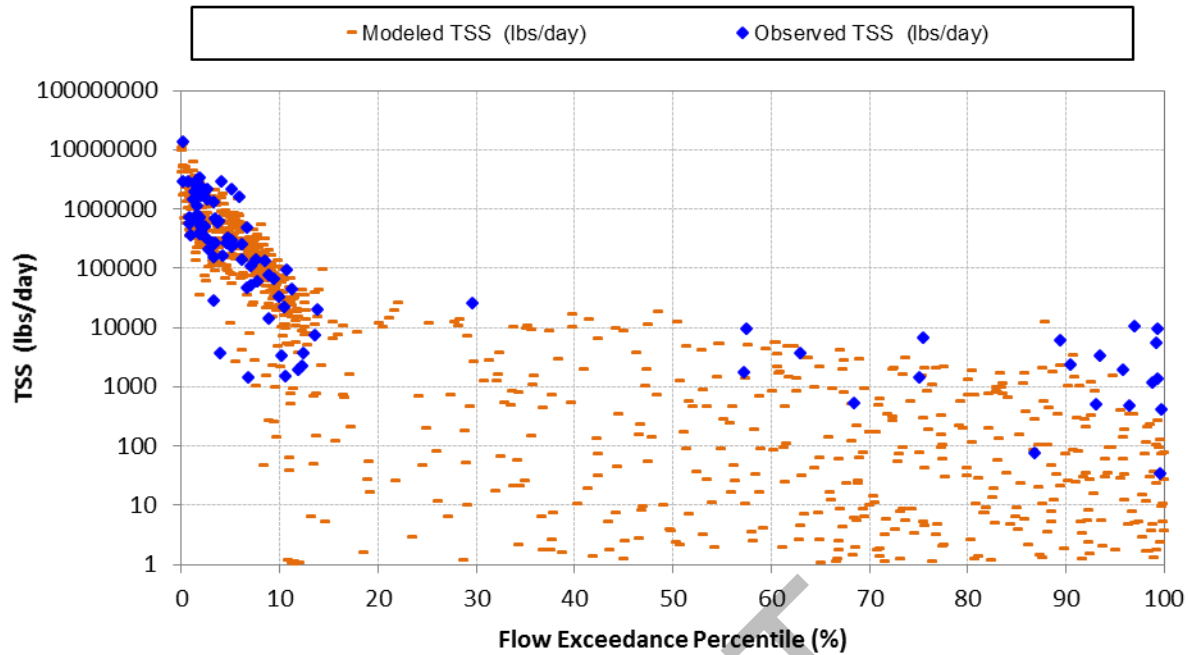


Figure 6A-18. Simulated vs. observed load duration plots for Total Sediment (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

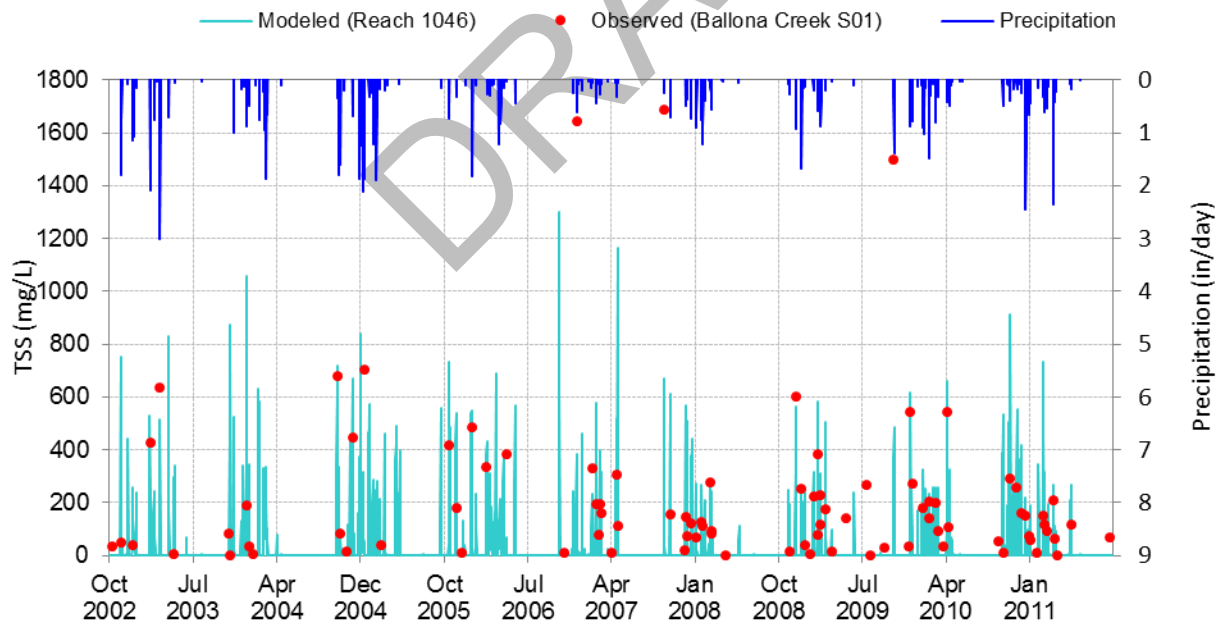


Figure 6A-19. Simulated vs. observed timeseries plots for Total Sediment (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

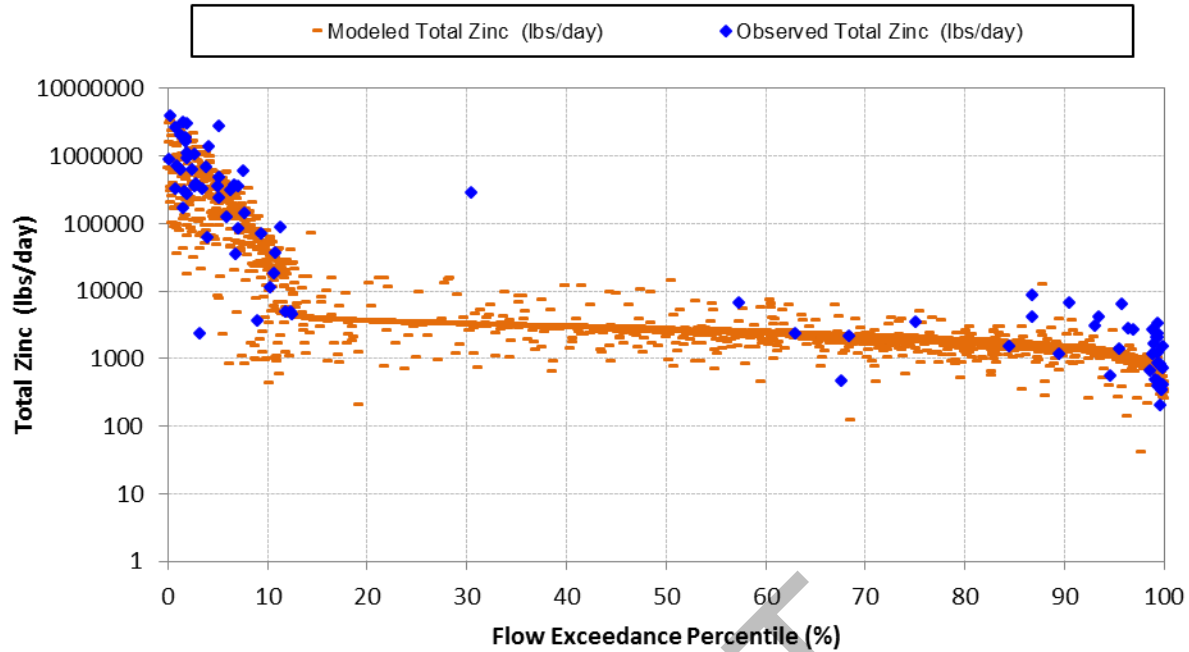


Figure 6A-20. Simulated vs. observed load duration plots for Total Zinc (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

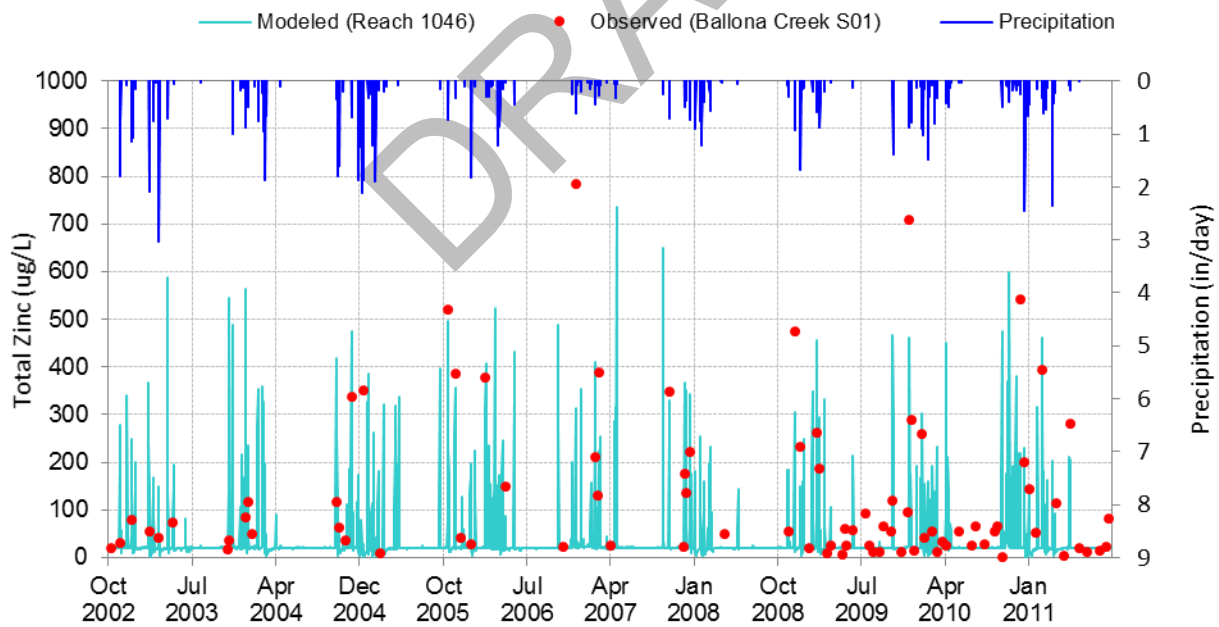


Figure 6A-21. Simulated vs. observed timeseries plots for Total Zinc (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

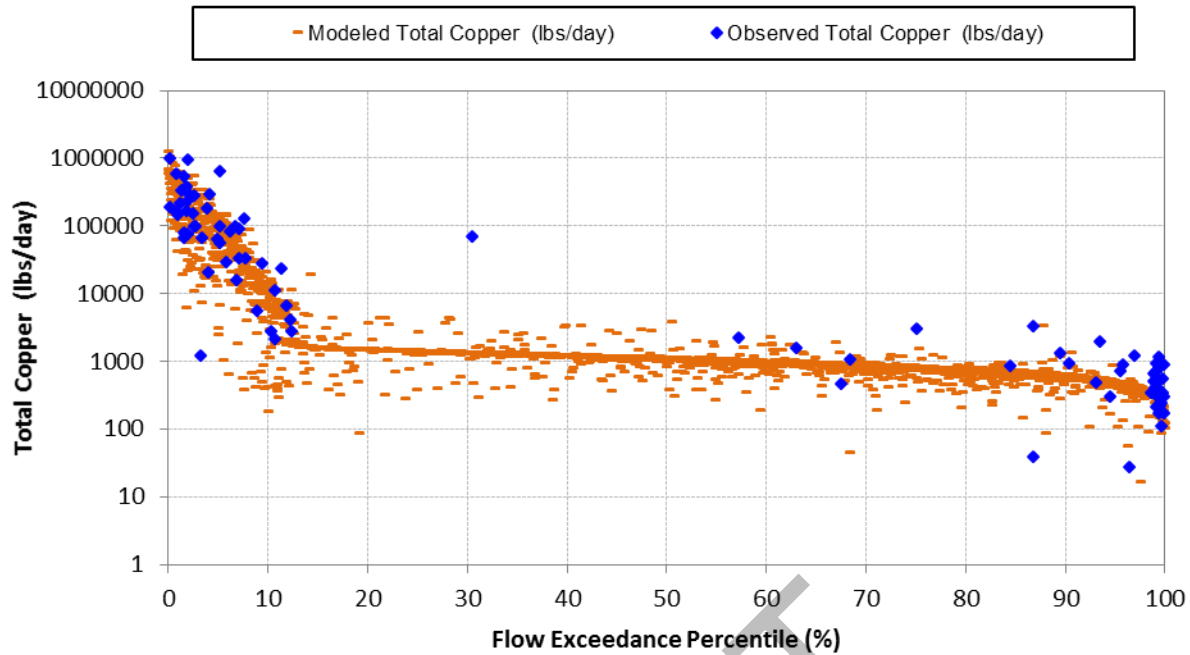


Figure 6A-22. Simulated vs. observed load duration plots for Total Copper (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

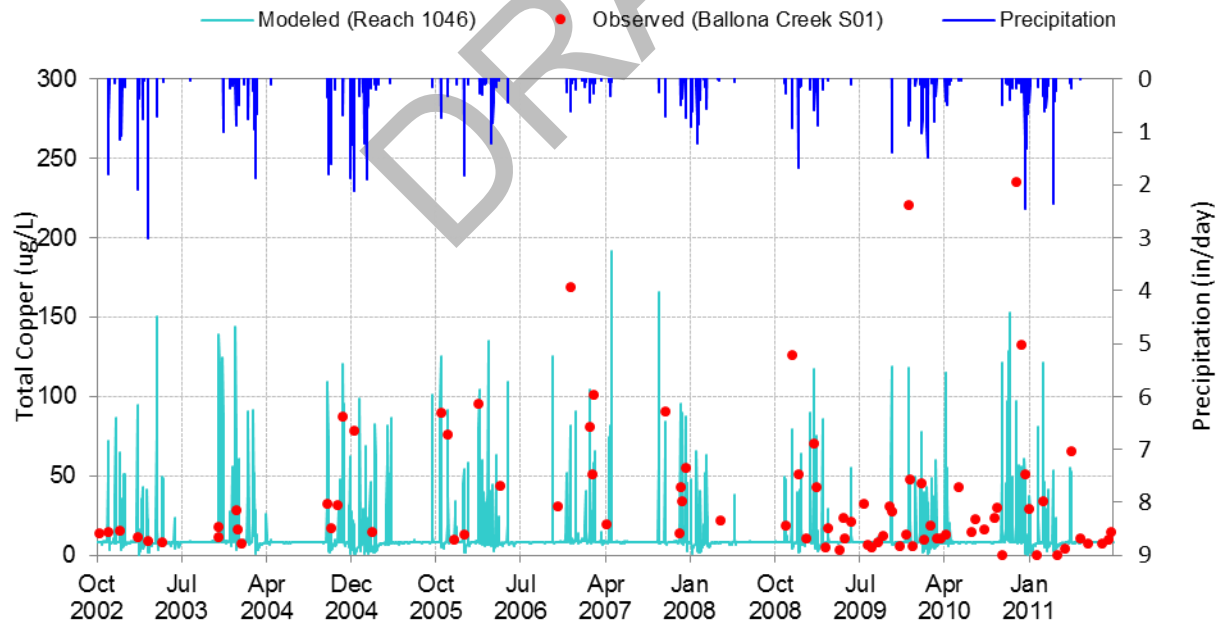


Figure 6A-23. Simulated vs. observed timeseries plots for Total Copper (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

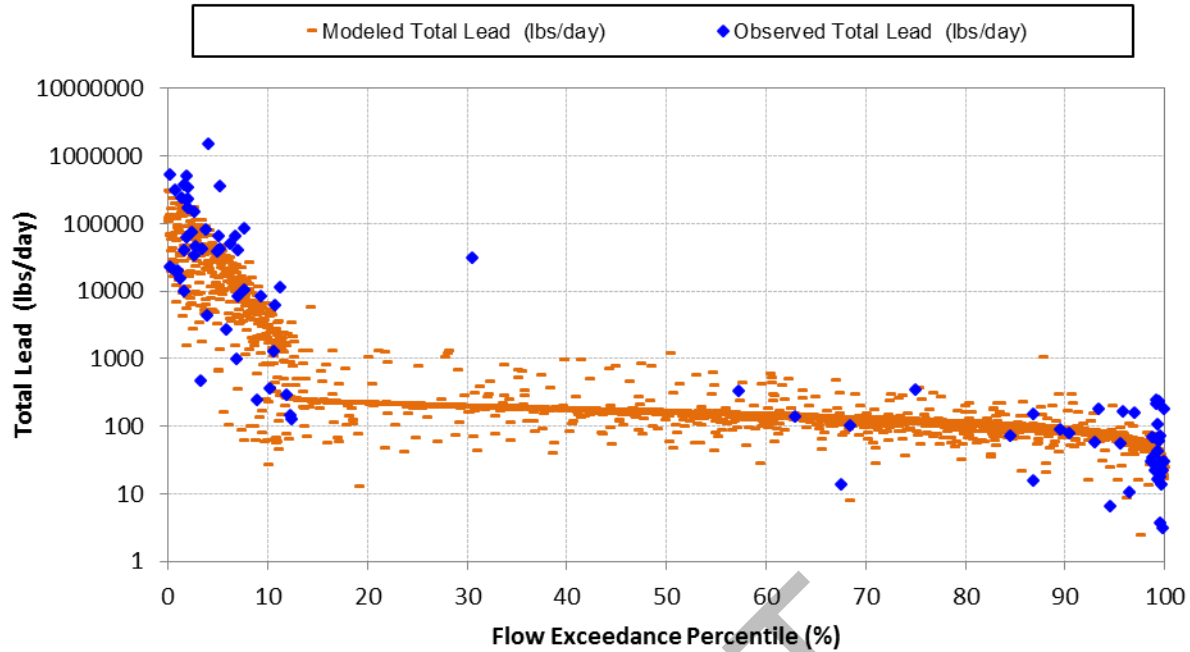


Figure 6A-24 Simulated vs. observed load duration plots for Total Lead (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

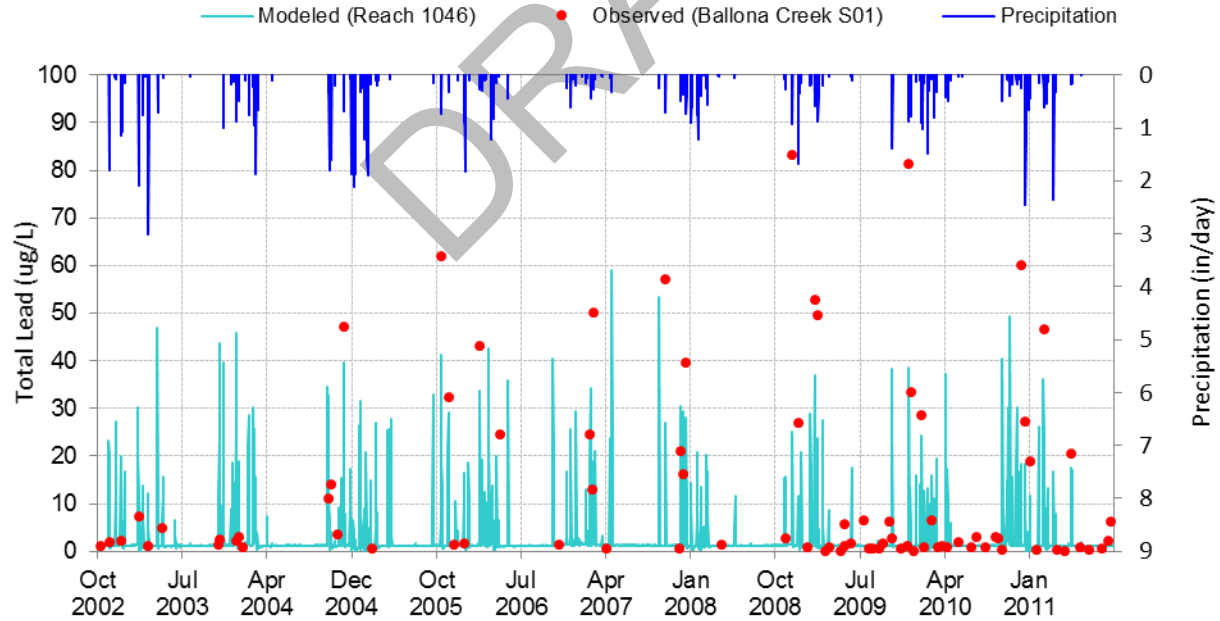


Figure 6A-25. Simulated vs. observed timeseries plots for Total Lead (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

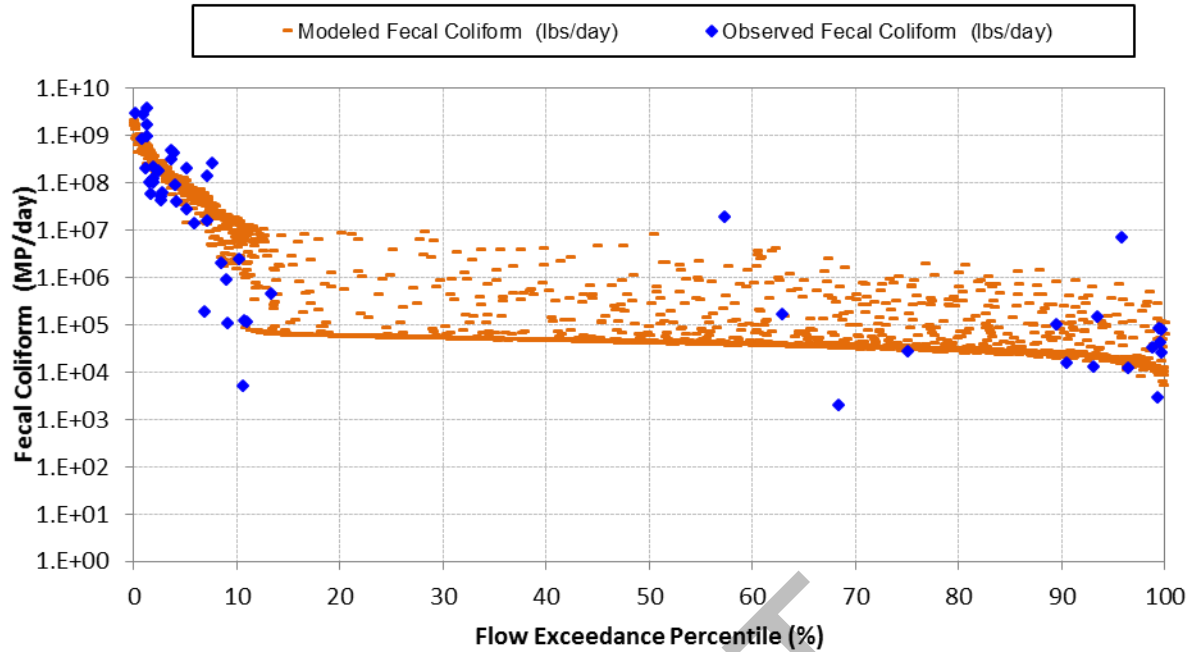


Figure 6A-26 Simulated vs. observed load duration plots for Total Lead (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

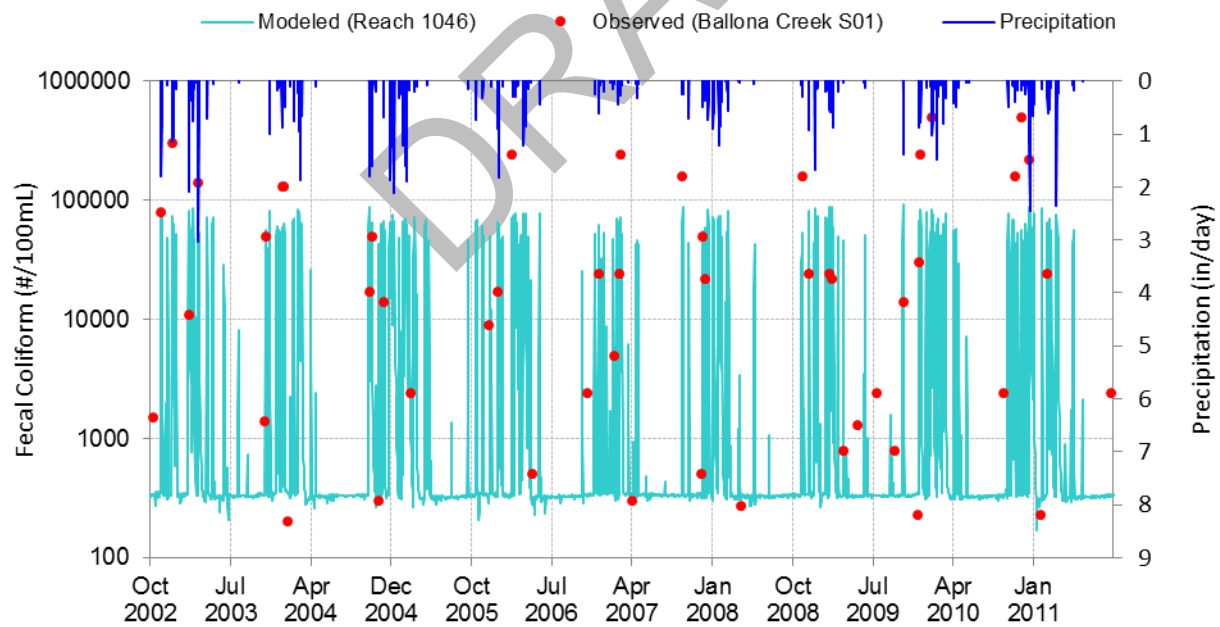


Figure 6A-27. Simulated vs. observed timeseries plots for Total Lead (10/1/2002 through 9/30/2011) at Ballona Creek Mass Emission Station (S01).

Appendix 6.B1

Dry Weather RAA for *E.coli* Control Measures

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Ballona Creek Water Quality Model Development

E. coli is the limiting pollutant for dry weather and thus the dry weather RAA focuses on demonstration that proposed dry weather BMPs will result in attainment of bacteria RWLs. The scenarios presented herein are very preliminary in terms of the actual design and operation of the North Outfall Treatment Facility (NOTF) – for example, the scenarios assume 100% treat and release of intercepted flows, but it is possible that flows will be diverted to Hyperion Treatment Plant for water re-use in order to provide additional benefits.

To simulate dry weather flow rates and bacteria concentrations in Ballona Creek, a QUAL2K model was applied. QUAL2K is a river and stream water quality model that is steady-state and one-dimensional (assumes complete mixing vertically and laterally)⁷. Originally developed in the late 1980s, the QUAL2K framework is supported by USEPA and has been applied to thousands of watersheds and TMDLs.

QUAL2K was developed to simulate a longitudinal profile of *E. coli* within Ballona Creek. *E. coli* was used as a surrogate for all other bacterial indicator objectives, because it is an objective in Ballona Creek Reach 2 and Sepulveda Channel, and because it has been assumed to be functionally equivalent to fecal coliform, the indicator used to evaluate compliance with REC-2 standards in Ballona Creek Reach 1 and Marine REC-1 standards in Ballona Estuary.

Boundary Conditions for Model Set-up

The boundary conditions for simulating Ballona Creek water quality were based on three sources of data:

1. July 2012 Recon, which measured flows and concentrations along the entire length of Ballona Creek during one “snapshot”
2. Ballona Creek Bacteria TMDL Coordinated Monitoring Plan
3. Ballona Creek “Flux Study” (Noble et al., 2006).

The applied boundary conditions and data sources are shown in Table 6B1-1. Note that dry weather discharges were grouped together into “diffuse inputs” along 4 segments of Ballona Creek. The diffuse flow rates for these segments were based on the total measured storm drain flow during the recon, and the applied concentrations were the flow-weighted averages.

The time for downstream travel is a key parameter for bacteria fate and transport. The in-stream travel times along the Ballona Creek mainstem were based on measurements collected during the Ballona Creek Flux Study (Noble et al., 2006). The study deployed open-channel flow meters in the Ballona Creek watershed to measure depth and velocity rates at one-minute intervals over a 6-hour period. The velocities measured with open channel flow meters during the Flux Study were a valuable resource, as velocities could be inserted directly into the model as boundary conditions (instead of relying on an empirical approach such as Manning’s equation). The median velocities measured in mainstem Ballona Creek were applied to the corresponding segments, as shown in Figure 6B1-1. Segment lengths were measured using ArcGIS software.

⁷ See <http://epa.gov/athens/wwqtsc/html/qual2k.html>

E. coli was simulated in the QUAL2K model as a non-conservative parameter with first-order, exponential decay. The applied decay rate was 0.09 per hour, which is the decay rate used in the LA River Bacteria TMDL (CREST, 2010). This decay rate was derived from SCCWRP decay studies that employed sunlight and temperature conditions specific to southern California (Noble et al., 2004).

Table 6B1-1 Boundary Conditions for the QUAL2K Model and Data Sources

Boundary Location	FLOW RATE		<i>E. coli</i> CONCENTRATION	
	Flow Rate (cfs)	Data Source	Concentration (MPN/100mL)	Data Source
Cochran Ave Daylight	7.1	2012 Recon	720	2012 Recon
Wed_07 Tunnel Daylight	5.9	2012 Recon	460	2012 Recon
Adams Drain	0.3	2012 Recon	1900	2012 Recon
Benedict Canyon Channel	3.54	2012 Recon	630	CMP and Status & Trends median
Sepulveda Channel	1.54	2012 Recon	1400	CMP and Status & Trends median
Diffuse inputs between Wed_07 and National Blvd	3.2	2012 Recon	2162	2012 Recon
Diffuse inputs between National Blvd and Tue_13	1.1	2012 Recon	1225	2012 Recon
Diffuse inputs between Tue_04 and Tue_11	0.5	2012 Recon	760	2012 Recon
Diffuse inputs between Tue_01 and Tue_02	0.2	2012 Recon	174	2012 Recon
Diffuse inputs to Sepulveda Channel	0.0	2012 Recon	N/A	2012 Recon

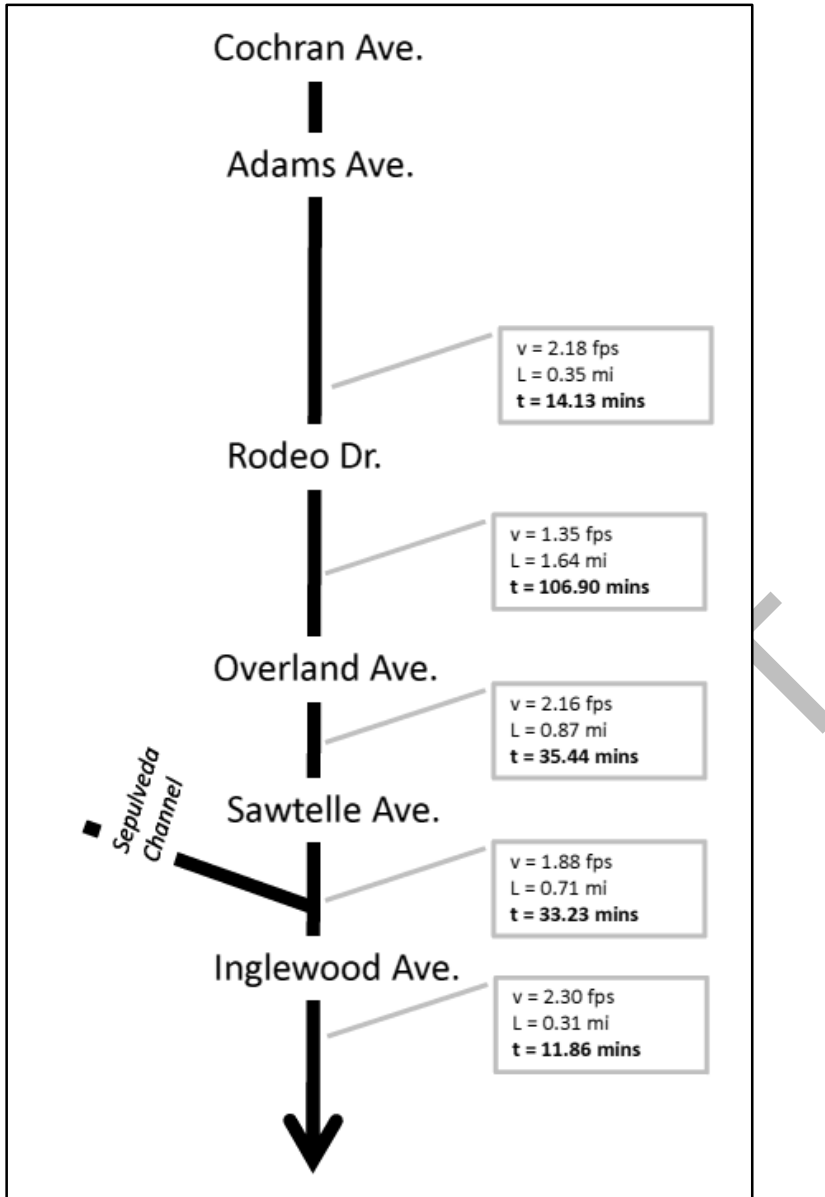


Figure 6B1-1 Travel Times used in QUAL2K based on Velocities Measured during the Flux Study

(*v* = median velocity, *L* = segment length, *t* = segment travel time during dry weather)

Model Verification for Baseline Conditions

Once the QUAL2K model was setup with the previously described boundary conditions, the predicted flow rates and *E. coli* concentrations were compared to observed data to verify the model's ability to predict current/baseline conditions, as follows:

- The simulated dry weather flow rates in Ballona Creek are shown in Figure 4-2. The simulated flow rate at Sawtelle Avenue, 16.3 cfs, is consistent with the observed median⁸ daily flow rate

⁸ Application of a median flow rate for the dry weather TMDL analysis is consistent with the LA River Bacteria TMDL (CREST, 2010).

from the 1978-2011 LA County DPW flow gage, 15.0 cfs. The difference in predicted and observed flow rate at Sawtelle Avenue was less than 8.7 percent.

- The simulated *E. coli* concentrations in Ballona Creek during dry weather are shown in Figure 6B1-2. The simulated *E. coli* concentration at Centinela Avenue, 613 MPN per 100 mL, is consistent with the observed median from the historic data at BCB-5, 630 MPN per 100 mL⁹. The difference in predicted and observed *E. coli* concentration at Centinela Avenue was less than 2.7 percent.

The results demonstrate the QUAL2K model is able to represent current water quality conditions in Ballona Creek, which will serve as the basis for evaluating potential EWMP implementation scenarios, as described in the next section.

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⁹ Based on 287 samples collected between 2004 and 2011 during the Status & Trends and CMP monitoring from Inglewood Avenue, which is approximately 1500 feet upstream of Centinela Avenue.

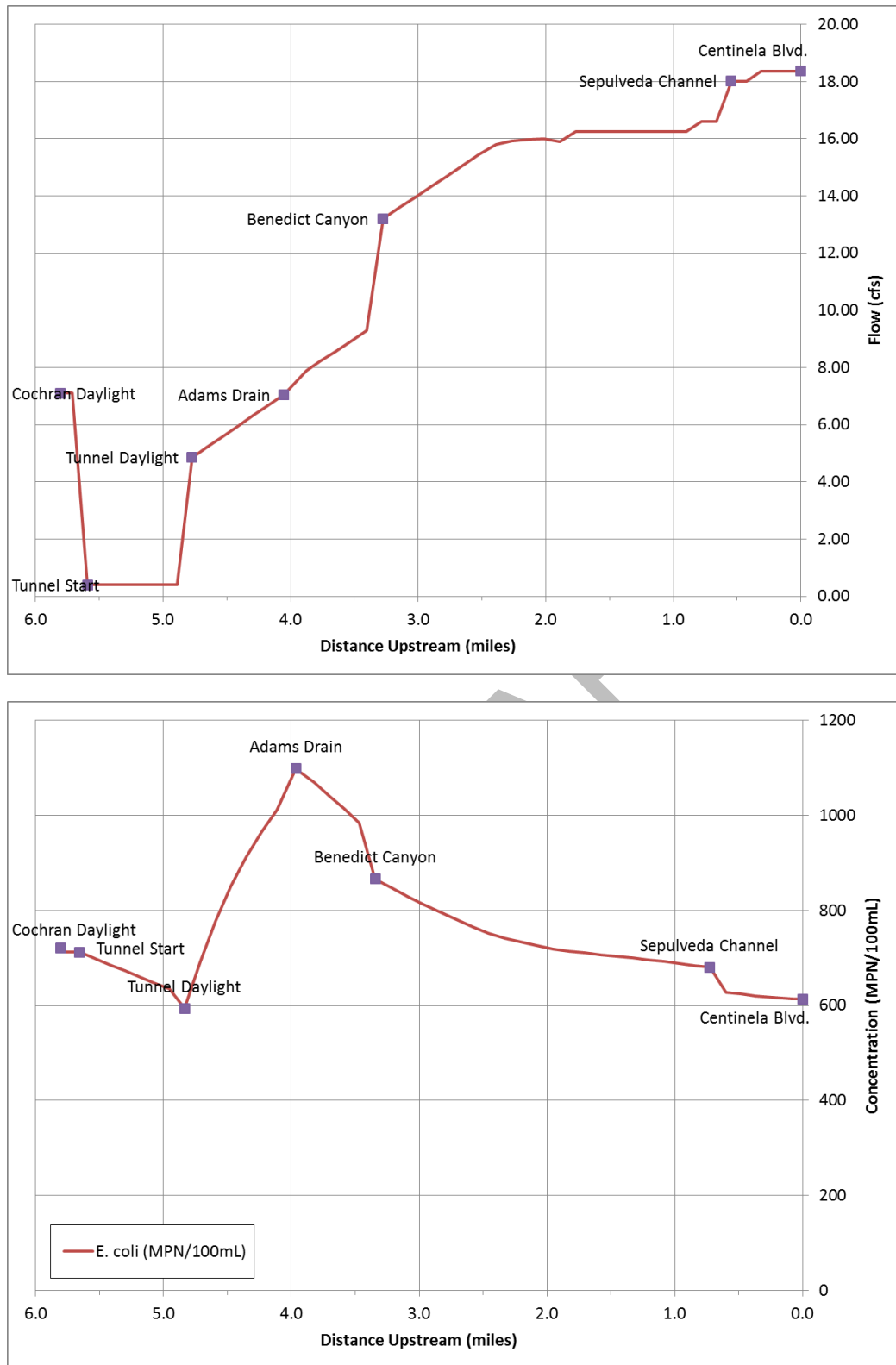


Figure 6B1 Modeled Baseline Conditions Flow Rate (top) and *E. coli* Concentrations (bottom)

Modeling of BMP Implementation Scenarios for Ballona Creek

The verified QUAL2K model provides the quantitative basis for evaluating potential BMP implementation scenarios and providing reasonable assurance that proposed BMPs will result in attainment of applicable *E. coli* RWLs. The considered scenarios and predicted water quality outcomes are described in the following sub-sections.

Considered BMP Implementation Scenarios

The effect of two BMPs was simulated for the EWMP Implementation Plan, as follows:

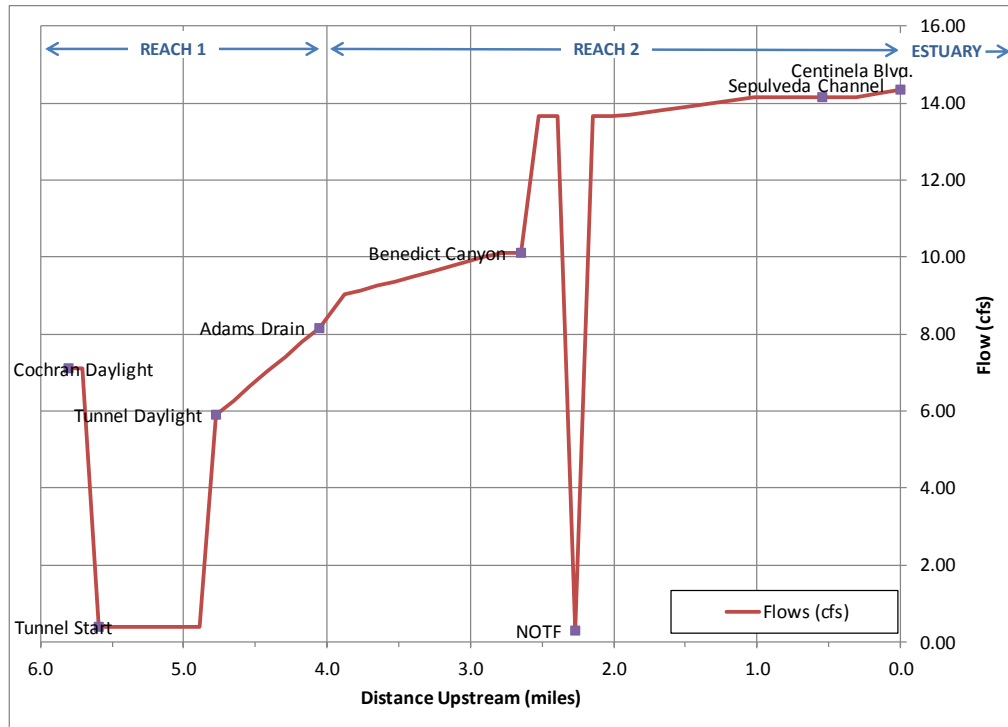
- **NOTF for Ballona Creek Reach 2:** the purpose of the North Outfall Treatment Facility would be to reduce *E. coli* concentrations in Reach 2 to levels below the Limited REC-1 WQOs and also reduce impacts of Reach 2 on the Estuary. The model assumed the NOTF will extract dry weather flow from Ballona Creek, disinfect to reduce levels to 20 MPN per 100mL, and return the flows to the channel. The scenario presented herein is very preliminary in terms of the actual design and operation of the North Outfall Treatment Facility (NOTF) – for example, the scenarios assume 100% treat and release of intercepted flows, but it is possible that flows will be diverted to Hyperion Treatment Plant for water re-use in order to provide additional benefits.
- **Treatment Facility for Sepulveda Channel prior to daylight:** Sepulveda Channel is designated as a REC-1 waterbody, even though it is a vertical walled box channel with limited access. The first purpose of the Sepulveda Channel low flow treatment facility (LFTF) prior to the daylight location would be to reduce *E. coli* concentrations to levels below REC-1 WQOs. The second purpose of the facility would be to prevent the Sepulveda Channel discharge from causing WQO exceedances in lower Reach 2 of Ballona Creek. The model assumed the Sepulveda Channel LFTF will remove all Sepulveda Channel flows prior to discharge to Ballona Creek. If treatment was utilized instead of the diversion, the conclusions of this dry weather RAA would not be affected.

Results of BMP Implementation Modeling

The combination of the NOTF and Sepulveda Channel LFTF has reasonable assurance of attaining *E. coli* RWLs in Ballona Creek prior to the freshwater confluence with the Estuary. As shown in **Figure 6B1-3**, the QUAL2K model predicts that concentrations of *E. coli* will be below the Limited REC-1 geometric mean WQO (126 MPN/100mL) downstream of NOTF for the entire extent of the non-tidally influenced channel. In Reach 1, the geometric mean fecal coliform concentration is less than the REC-2 geometric mean WQO of 2000 MPN per 100mL, and thus no BMPs are needed upstream of the Reach 1/Reach 2 break to achieve RWLs during dry weather (assuming a 1:1 translator between *E. coli* and fecal coliform).

Summary of BMP Implementation Modeling

The QUAL model outputs shown in Figure 6B1-3 constitute the reasonable assurance analysis to demonstrate that NOTF and Sepulveda Channel LFTF will achieve RWLs in Ballona Creek Reach 2. The concentrations of fecal coliform in Reach 1 are currently below the RWL, based on historic monitoring data. The QUAL model has provided a robust tool to conduct the dry weather RAA for the Ballona Creek EWMP.



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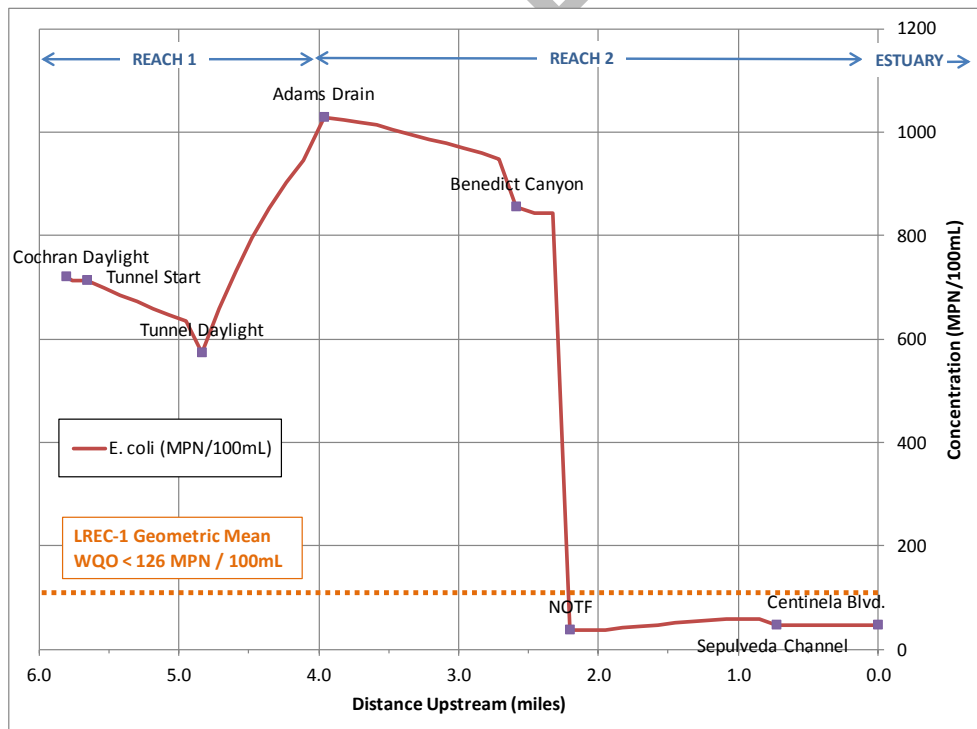


Figure 6B1-3 Predicted Flow Rates (top) and *E. coli* Concentrations (bottom) with Implementation of NOTF and Sepulveda Channel LFTF

(subject to change based on actual NOTF design)

Appendix 6.B2

Dry Weather RAA and Non-Stormwater Analysis

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This appendix presents the simulation of non-stormwater and dry weather reasonable assurance analysis (RAA) for the EWMP.

Introduction

The MS4 Permit effectively prohibits discharges of non-stormwater¹⁰ (dry weather runoff) and states that EWMPs shall “ensure that discharges...do not include non-stormwater discharges that are effectively prohibited.” In addition, the MS4 Permit includes dry weather water quality based effluent limitations (WQBELs) for some of the applicable total maximum daily loads (TMDLs) including the Los Angeles River metals TMDL. However, it is important that dry and wet weather conditions not be evaluated in separate silos – the EWMP includes a large network of wet weather BMPs that will eliminate a majority of non-stormwater discharges. As presented herein, the non-stormwater simulation quantifies the reduction of wet weather BMPs on non-stormwater discharges, and the remaining amount to be addressed will be achieved by non-stormwater abatement programs including source investigation/elimination and regional water use reduction efforts.

The non-stormwater analysis and dry weather RAA are presented as follows:

- Methodology and validation for non-stormwater simulation (Section 2)
- Results of non-stormwater simulation (Section 3)
- Dry weather RAA (Section 3)

Non-stormwater Simulation Approach

The primary source of non-stormwater is outdoor water use. As such, the non-stormwater analysis is based on a simulation of non-stormwater whose source is outdoor water use¹¹ in each of the subwatersheds within the EWMP area and whose sink is evapotranspiration and incidental infiltration. The modeling approach used for the non-stormwater analysis is distinctly different from the wet weather RAA – with the wet weather RAA being process-based (build-up wash off) and the dry weather RAA being a steady-state simulation based on empirical water use data from southern California. The non-stormwater analysis and wet weather RAA are linked by estimating the effectiveness of wet weather control measures on non-stormwater flows. The methodology and validation are presented in the subsections below.

Methodology

The methodology for the non-stormwater analysis is presented in the following subsections.

¹⁰ Non-stormwater does not include all dry weather runoff. For example, permitted dry weather discharges (e.g., dewatering) and groundwater baseflow are exempted/allowed by the Permit.

¹¹ Non-stormwater volumes are not necessarily equal to dry weather runoff volumes in the EWMP area. Non-stormwater is the portion of dry weather runoff that is effectively prohibited by the Permit. Dry weather runoff would also include groundwater that is discharged through the MS4 system (if any), which is allowed by the Permit. By focusing on the non-stormwater portion of dry weather runoff, the non-stormwater analysis and dry weather RAA are focused on the portion of dry weather runoff that is required to be controlled by MS4s.

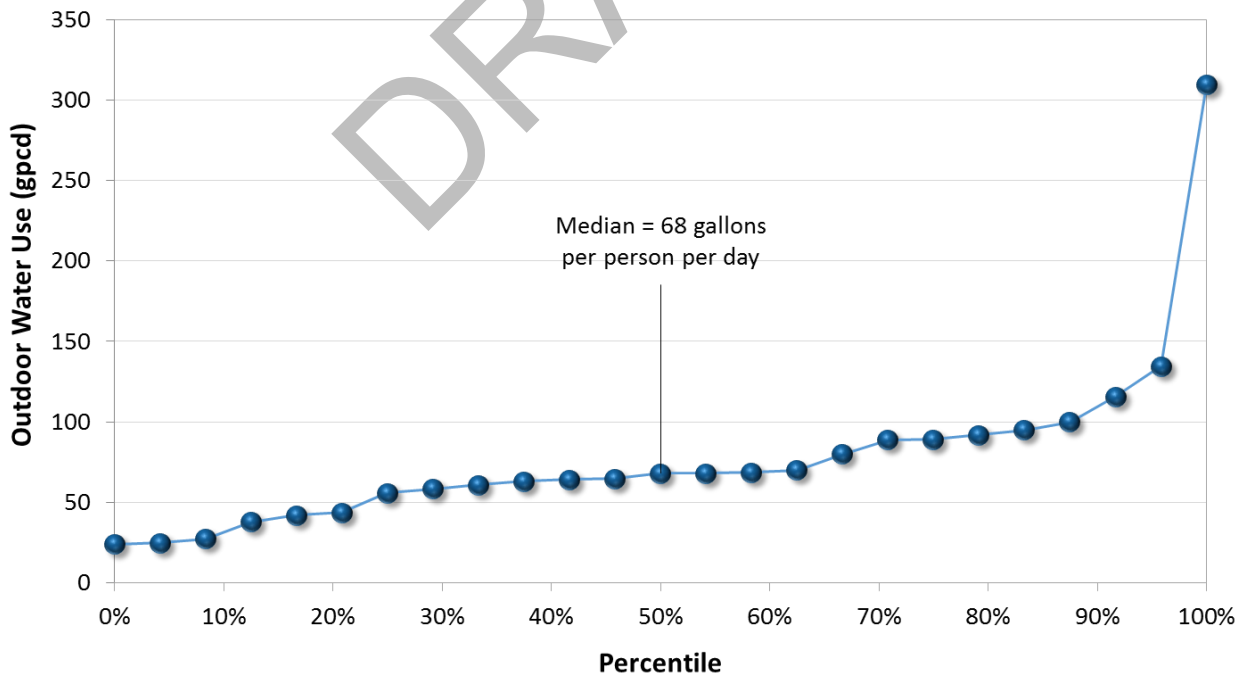
Non-stormwater Production Rates

The volumes of non-stormwater generated in the EWMP area were estimated by combining per capita outdoor water use rates with population estimates. For each subwatershed in the EWMP area, the daily generation of non-stormwater was the product of [1] the population in the subwatershed and [2] the estimated per capita water use. The basic parameters are the following:

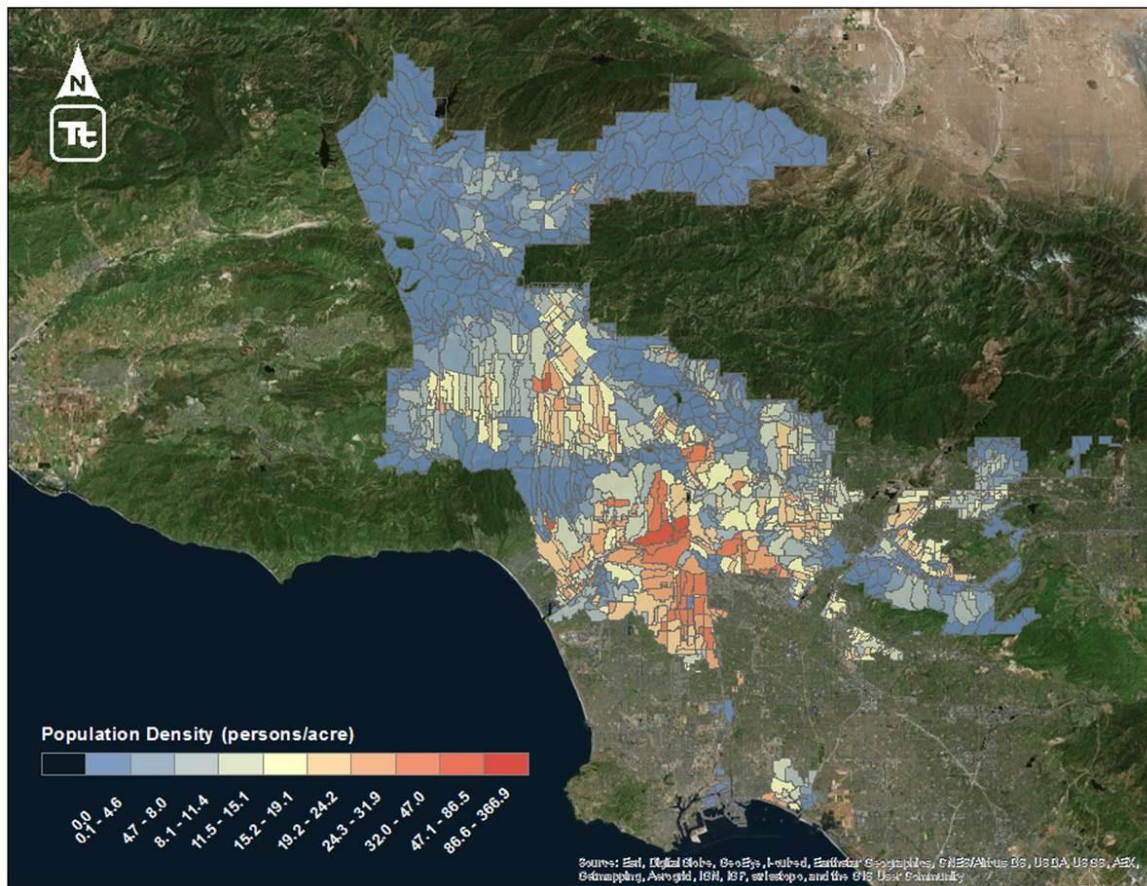
- U.S. census population at the subwatershed level, and
- A steady-state per capita outdoor water use rate derived from a literature review

Outdoor water use was characterized through a literature review compiling typical per capita outdoor water use in Southern California. Twenty-five (25) estimates of outdoor water use were compiled¹² as shown in **Figure 2-1**. A 50th percentile (median) outdoor water use value of 68 gallons per capita per day (gpcd) was selected as the representative outdoor water use condition.

Population estimates were then calculated using United States Census Bureau 2010 population and housing unit counts by block (US Census Bureau 2010). The block-scale population density data were spatially intersected with the BC EWMP subwatersheds (see Figure 2-2) and the total estimated population was then tabulated for each modeled area. The estimated population within each subwatershed was then proportionally distributed across the BMP drainage area. For outdoor water use estimates based on households, it was assumed that 2.97 persons are in each household (DeOreo et al., 2011). This per capita outdoor water use was used as a steady state input to the LSPC watershed model baseline to generate non-stormwater in the EWMP area.



¹² California Department of Water Resources, 2005, 2013; Christian-Smith et al., 2012; DeOreo et al., 2011; Gleick et al., 2003; LADPW 2010; Natural Resources Defense Council and Pacific Institute, 2014

Figure 0-1. Distribution of Outdoor Water Use Estimates Compiled in Literature Review**Figure 0-2. Population Estimates by Subwatershed in LA County****Antecedent Conditions**

Although clearly defined definitions exist for wet periods, definitions for dry periods are less clearly defined. Wet-weather periods are either defined in terms of rainfall or instream flow. For bacteria, a wet day is one with a rainfall total greater than 0.1 inches plus the three subsequent days, while metals criteria define wet days as those with instream flow above the 90th percentile. As such, a dry weather critical condition was defined for the non-stormwater analysis, as described below.

Antecedent conditions for the BC non-stormwater analysis was determined by counting the number of consecutive dry days by month, exactly as was done for the Gateway Watershed Management Programs (LSGWMP, 2015). **Figure 2-3** illustrates graphically the analysis to identify a representative dry period. Within the two selected years (Critical WY 2003 and Average WY 2008), the 45-day period between 8/17 and 9/30 was found to be the most representative of dry weather conditions because (1) no rainfall occurred at any of the gages throughout all three WMP areas, (2) it was during a time of the year that was historically shown to experience the least amount of spatially-weighted rainfall in a year, and (3) it was late in the summer following an extended period of no rainfall for both 2003 and 2008.

A 30-day period falling between 8/21 and 9/20 during the Average WY 2008 was used to generate the evapotranspiration boundary conditions for the BC non-stormwater analysis. The daily average volume over the 30-day period is used as the basis for reporting.

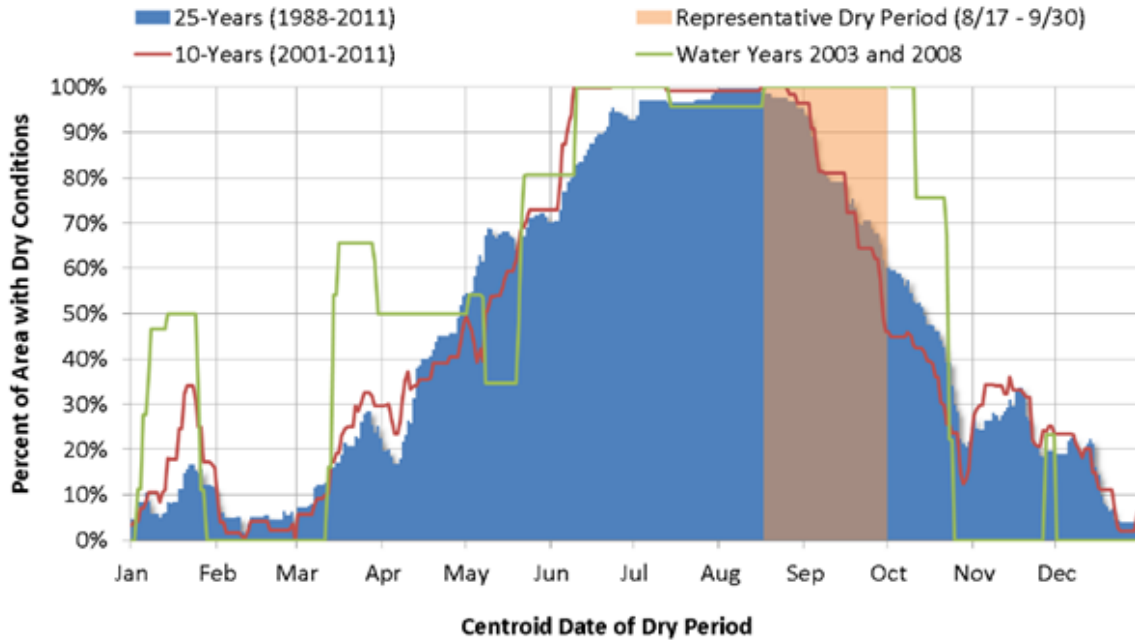


Figure 0-3. Summary of non-wet weather periods in the Lower San Gabriel River WMP (LSGRWG 2015).

Effect of Wet Weather Controls on Non-stormwater

The wet weather control measures in the EWMP (defined by the wet weather RAA) will provide significant benefits for eliminating non-stormwater. For BC, the dry weather runoff timeseries was routed through the interim (50% and 75%) and final (100%) metals wet-weather BMP networks to quantify the incidental non-stormwater reduction. In addition, the additional bacteria BMPs to be implemented by 2021 are known to be able to achieve all non-stormwater runoff. The comparison of baseline to remaining non-stormwater volume is used to calculate the percent reduction in non-stormwater flows in the EWMP area at each milestone through structural BMPs alone. Remaining runoff volume, if any, is the amount to be addressed by non-stormwater abatement programs including source investigation/elimination and regional water use reduction efforts.

Validation

Several studies in Southern California have produced a correlations between drainage area and dry weather flow for larger basins. A study by Ackerman and Stein (2005) was used to support the validation effort. The study included selection of four urbanized sites in Los Angeles County which had a historic flow record. The two largest basins included in the study were Ballona Creek and Coyote Creek. To allow anthropogenic dry weather flows to be isolated, each location was selected based on specific characteristics including heavily urbanized landscapes, concrete lined channels (to focus on areas with minimal groundwater baseflow), and lack of significant point source discharges. The study estimated dry weather runoff to be about 180 cubic meters per day per square kilometer of drainage area for large basins in Southern California (Ackerman and Stein, 2005).

Multiplying the daily flow estimate from Ackerman and Stein (2005) by the total MS4 drainage area of the BC EWMP results in an estimated flow of **96** acre-feet per day. Using the dry weather modeling methodology described above, the total dry weather runoff simulated for BC is approximately **123** acre-feet per day, a **difference of 28%**. Considering the high variability of non-stormwater runoff and

considering areas with lower population density in areas of BC (Figure 2-2), based on calculated percent difference, the non-stormwater analysis is validated to provide a reasonable estimate of non-stormwater generated in the EWMP area.

Results of Non-stormwater Simulation

The amount of non-stormwater to be addressed by the EWMP was determined by the non-stormwater simulation. For each jurisdiction in BC EWMP Group, the baseline non-stormwater volumes were estimated along with the non-stormwater volume remaining *after* implementation of wet weather control measures that correspond to each of the EWMP milestones (2016, 2019, and 2021). The corresponding non-stormwater volume reductions and percent reductions, as shown in **Figure 3-1** and **Figure 3-2**, respectively.

To consider the sensitivity of the analysis to the assumed outdoor water use, the simulation was also conducted using the 90th percentile water use estimate (109 gpcd), as shown in **Table 3-1**. The analysis of non-stormwater percent reduction was generally insensitive to a higher water use estimate, due to the fact that residual non-stormwater is due to areas where few control measures are implemented (rather than BMPs being “overtopped” by higher non-stormwater flow rates).

Table 0-1. Simulated Non-stormwater Reduction using Median versus 90th Percentile Water Use Estimates

Jurisdiction	Percent Reduction of Non-stormwater Volume with Final Metals & Bacteria BMPs Implemented (2021)	
	Median Outdoor Water Use Estimate (68 gpcd)	90 th Percentile Outdoor Water Use Estimate (109 gpcd)
Beverly Hills	100%	100%
Culver City	100%	100%
Inglewood	100%	100%
Los Angeles	100%	100%
Santa Monica	100%	100%
Uninc. LA County	100%	100%
West Hollywood	100%	100%

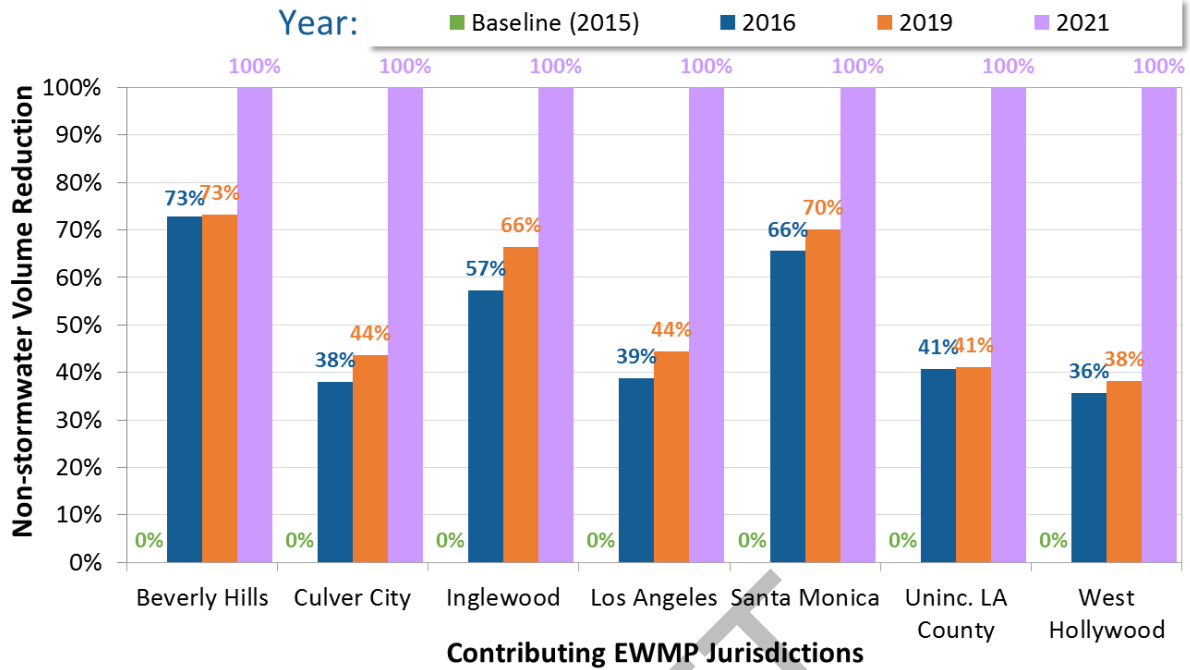


Figure 0-4. Schedule for Non-stormwater Reductions via Implementation of Structural BMPs

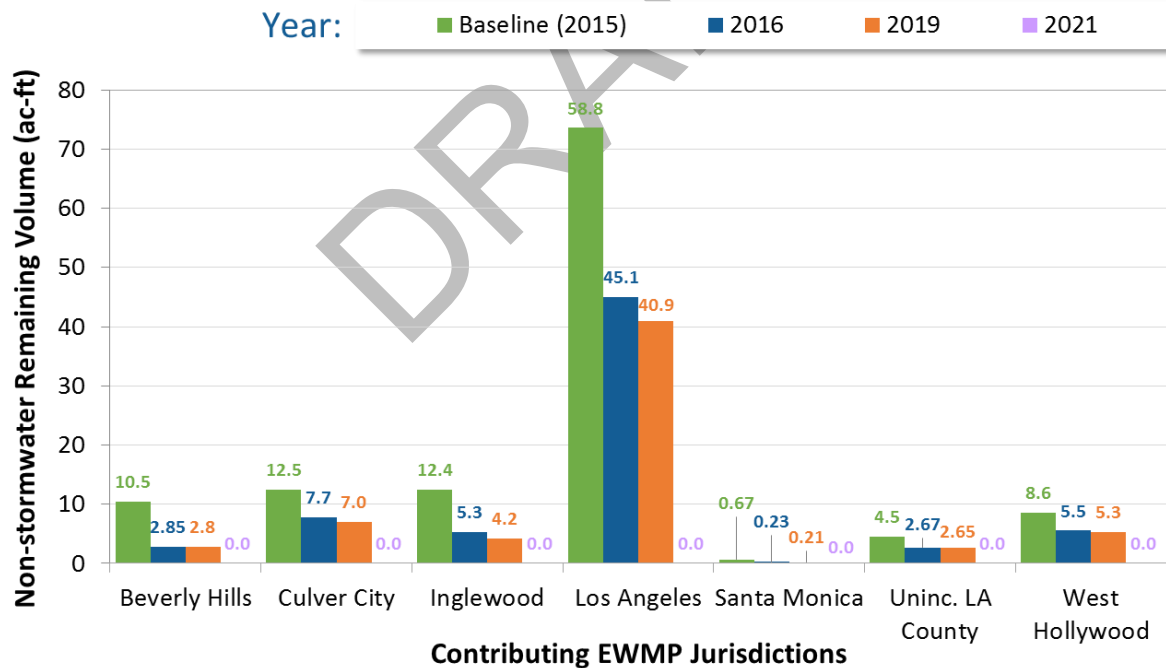


Figure 0-5. Schedule for Remaining Non-stormwater Volume after Implementation of EWMP Structural BMPs

Conclusions

The non-stormwater simulation has supported the dry weather RAA for BC, which demonstrates that non-stormwater will be effectively prohibited and provides reasonable assurance of achievement of dry weather RWLs by certain milestones. Existing MCMs appear to be addressing metals RWLs, whose 90th percentile concentrations during dry weather are less than applicable WQOs. Reasonable assurance for attaining E. coli RWLs is provided by the dry weather RAA in Appendix 6B1.

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Appendix 6.C

Control Measure Opportunity Assessment

DRAFT

This appendix summarizes the methods for identifying existing, planned, and potential control measure opportunities in the Ballona Creek EWMP area. The identified control measures (herein called best management practices, or BMPs, interchangeably) served as the “pool” of opportunities considered in the RAA, and ultimately determined the suite of strategies prescribed in the EWMP.

Methods and results are presented per the following sections:

- **Section 6.C.1 – Existing and Planned Control Measures:** summarizes the methods for identifying existing and planned BMP opportunities in the Ballona Creek EWMP area.
- **Section 6.C.2 – Potential Control Measure Opportunity Assessment:** identifies new BMP opportunities for each category described in [Section 4 and](#) estimates the relevant subwatershed-scale infiltration rates.

Existing and Potential Control Measures

Existing watershed planning documents and Total Maximum Daily Load (TMDL) Implementation Plans were reviewed and information on existing and planned regional BMPs was compiled.

Documents reviewed included:

- Ballona Creek Watershed Management Plan (2004)
- Ballona Creek Greenway Plan (2011)
- Santa Monica Bay Restoration Plan (2008)
- Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek (2012)
- Request for Time Schedule Order (TSO) Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacterial TMDL (2013)
- TMDLs for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, & Sepulveda Channel (2006, 2012) and its implementation plan (2009)
- Reconsideration of Certain Technical Matters of the TMDL for Bacteria Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel (2012)
- TMDLs for Metals in Ballona Creek (2005,2007) and its implementation plan (2010)
- TMDLs for Toxics in Ballona Creek Estuary (2005) and its implementation plan (2011)
- Trash TMDLs in Ballona Creek and Wetland (2001, 2004)
- Ballona Creek Wetland TMDL for Sediment and Invasive Exotic Vegetation (2012)
- Draft TMDLs for [dichloro diphenyl trichloroethane] DDTs and [polychlorinated biphenyls] PCBs in Santa Monica Bay (2011)
- Greater Los Angeles Integrated Regional Water Management Plan (LA IRWMP), 2006
- LA IRWMP, 2013

- City of Los Angeles Proposition O Monthly Report, October 2013
- Water Quality Compliance Master Plan for Urban Runoff (May 2009)
- Existing project databases (such as the 2013 LAIRWMP OPTI Database and Stormwater Capture Project Database developed by the Southern California Stormwater Committee [SCSC]) were reviewed, and information on existing and planned regional BMPs was compiled.

The identified BMPs are listed in [Appendix 6.F](#).

Potential Control Measure Opportunity Assessment

Additional control measures were identified to meet the numeric water quality objectives of the EWMP. This section discusses the methods used to assess *new* control measure opportunities for each category discussed in [Section 4 of the EWMP¹³](#). Analysis of soil infiltration rates was also performed to evaluate the prominence of systems where poor infiltration necessitates underdrains (e.g. biofiltration systems) and to aid with project prioritization.

Data used for the desktop assessment are listed in Table 6.C-1.

Table 6.C-1. Data inventory for street screening

Data Set	Format	Description	Source
Parcels	GIS Shapefile	Outlines property boundaries, sizes, and ownership	Los Angeles County (LAC) Assessor
Roads	GIS Shapefile	Shows street centerline network & classification by Topologically Integrated Geographic Encoding and Reference (TIGER)	LAC GIS Portal
Land Use	GIS Shapefile	Subdivides the region into predefined land use categories with similar runoff properties. Each individual land use feature identifies the associated percent impervious coverage.	LAC WMMS Model
Soils	GIS Shapefile	Outlines spatial extents of dominant soil types	LAC GIS Portal
Subwatersheds	GIS Shapefile	Defines drainage areas to selected outlet points	LAC WMMS Model
Groundwater Contours	GIS Shapefile	Illustrates groundwater depth as measured from the surface	Los Angeles Bureau of Sanitation
Slopes	GIS Shapefile	Classifies regions by the slope category	LAC WMMS Model
Jurisdictions	GIS Shapefile	Establishes city and county boundaries	LAC GIS Portal
Aerial Orthoimagery	Image	Shows high resolution (30-cm) satellite imagery	ESRI Basemap
Soil Contamination Hazards	Table	Coordinates of active soil contamination and cleanup sites	State of California Water Resources Control Board GeoTracker

¹³ Note that for the purposes of the RAA, total drainage area must be conserved. In other words, overlapping drainage areas were consolidated to avoid double-counting the same treated drainage area. The reported opportunities in this section are therefore smaller than the actual available spatial opportunities in the EWMP area – this was reconciled in the RAA by incorporating routing between BMPs so that the cumulative upstream drainage area to each BMP is represented.

Soil Infiltration Rate Assessment

Soil infiltration rates are one of the key drivers of infiltration BMP performance (as discussed in [Section 6](#) of the EWMP), and determine whether an underdrain is necessary to facilitate drainage. This section describes the methodology used to estimate subwatershed-scale soil infiltration rates for BMP modeling.

The RAA model implicitly includes soil infiltration parameters that were arrived at through calibration efforts; however, to explicitly model control measures, infiltration rates were defined by subwatershed using available geospatial data. Soil data coverage provided through the LACDPW Hydrology Manual categorized soil unit areas into soil types. Runoff coefficient curves reported in the Hydrology Manual were developed by LACDPW for each soil type using double ring infiltrometer tests performed on areas of homogeneous runoff characteristics (LACDPW 2006). LADPW employed a sprinkling-type infiltrometer to perform the tests in each homogeneous area.

Runoff coefficient curves represent the response of the runoff coefficient (defined as the ratio of runoff to rainfall from a land area) to varying rainfall intensities. Each curve displays an inflection point representing the rainfall intensity at which substantial runoff initiates. According to LADPW (2006), each curve was assigned a minimum runoff coefficient of 0.1, “indicating that there is some runoff even at the smallest rainfall intensities.” The infiltration rate for each soil curve can therefore be calculated as the difference between the rainfall intensity at the point of inflection and the minimum runoff rate, as demonstrated conceptually in Figure 6.C-1.

The inflection point, and subsequently calculated infiltration rate, for each unique soil type in the EWMP area were identified using the runoff coefficient curves in Appendix C of the *Hydrology Manual* (LADPW 2006). Subwatershed areas were then intersected with the soil type coverage to calculate an area-weighted infiltration rate. Figure 6.C-2 shows the distribution of the infiltration rates.

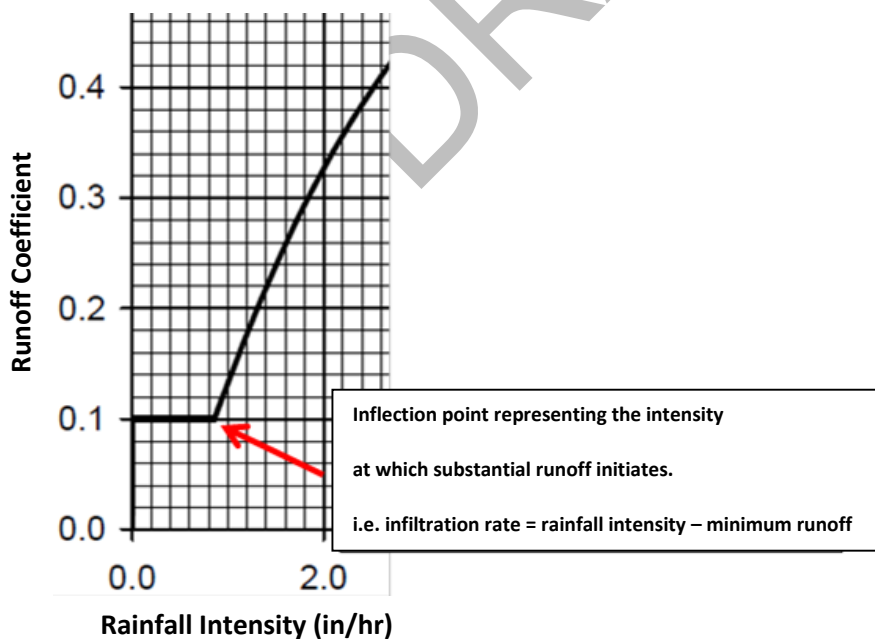


Figure 6.C-1. Example Determination of Runoff Coefficient Inflection Point for an Arbitrary Soil Type in Appendix C of LACDPW (2006).

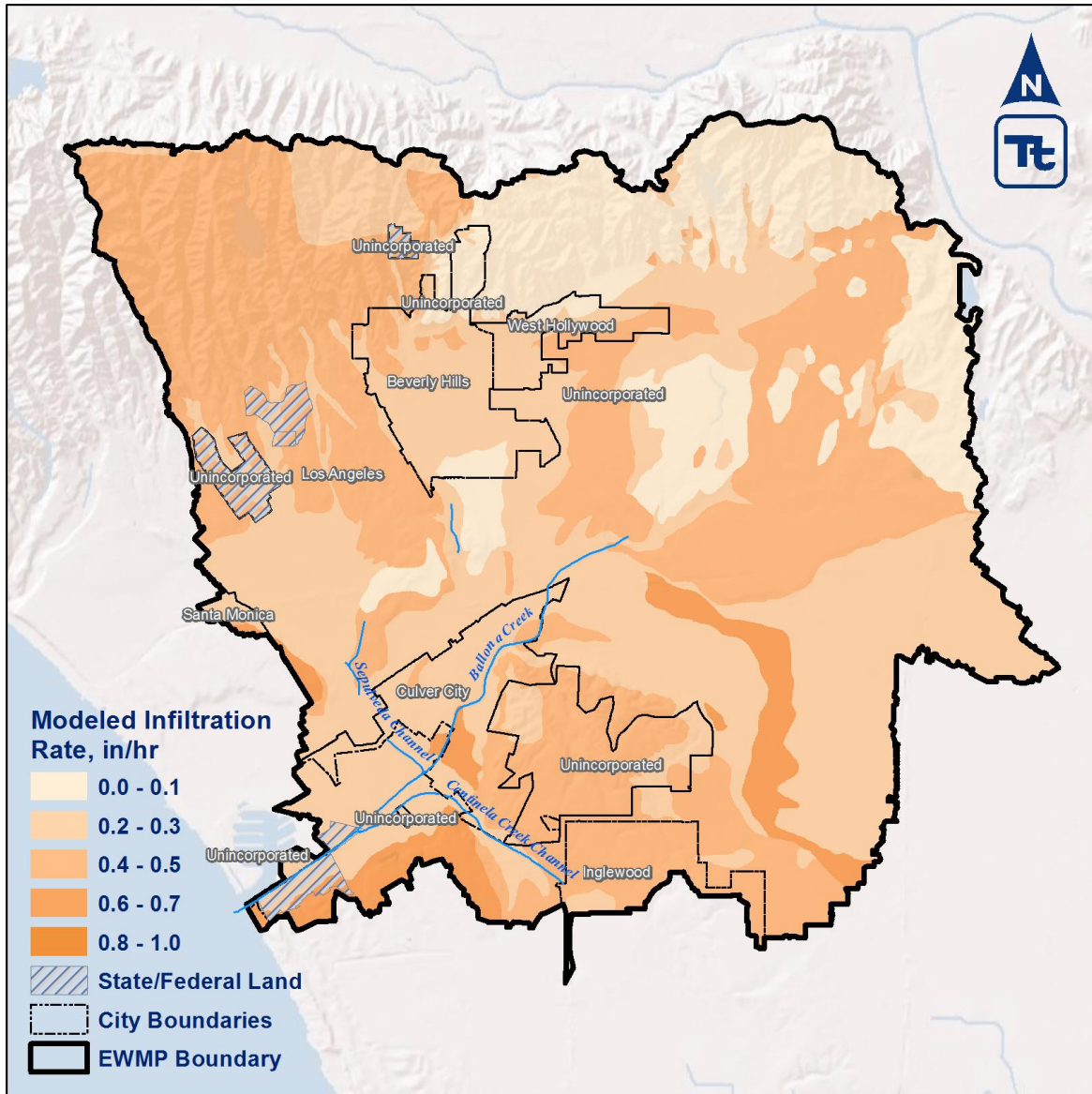


Figure 6.C-2. Map Showing Modeled Soil Infiltration Rates Throughout the Ballona Creek EWMP Area.

Appendix H of the Permit mandates underdrains (biofiltration systems) when subsoil infiltration rates are below 0.3 in/hr. Figure C-10 shows areas where green infrastructure and LID BMPs will likely require underdrains.

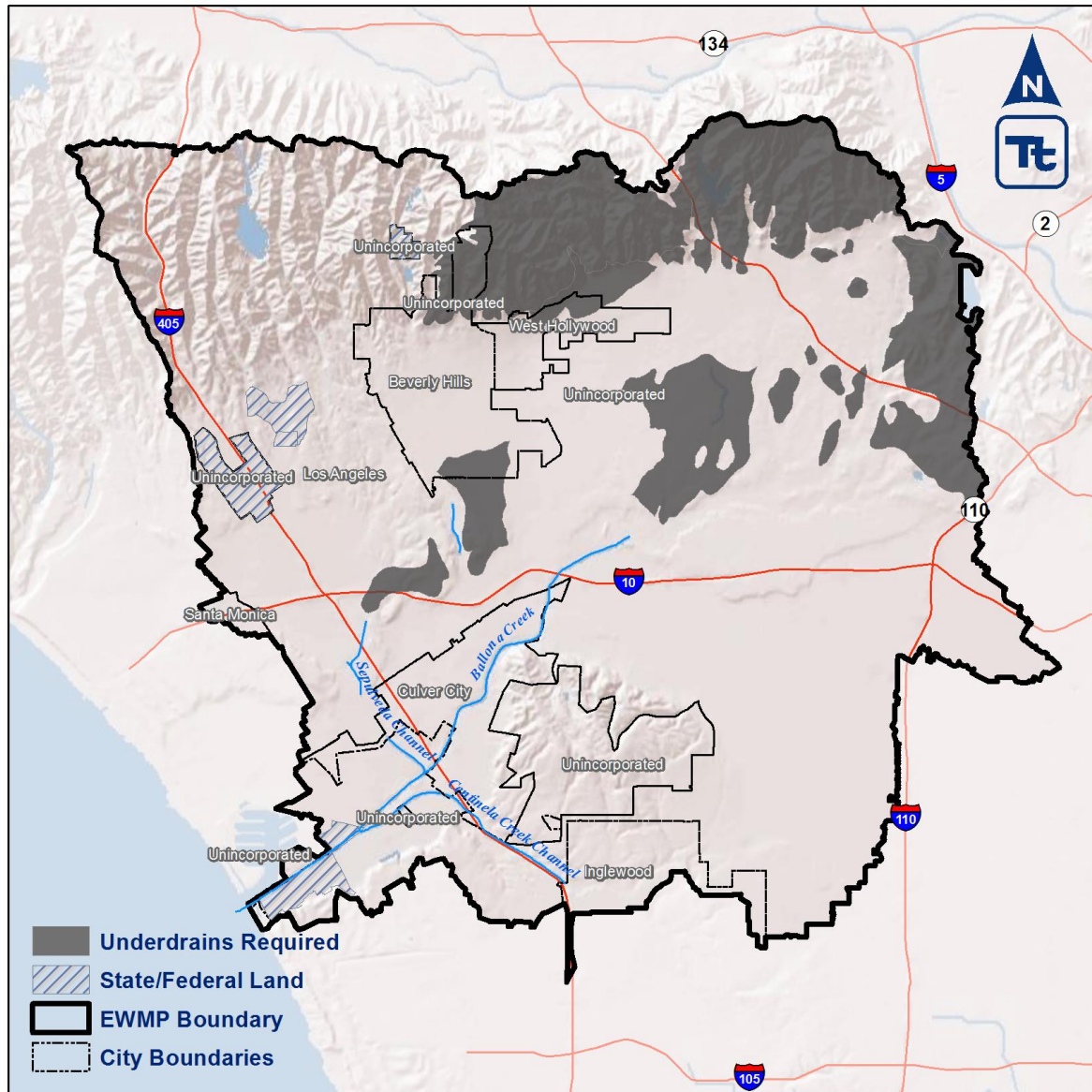


Figure 6.C-3. Areas where underdrains would likely be required (e.g. where subsoil infiltration rates are estimated less than 0.3 in/hr)

Parcel Screening Methods

Some parcels are unsuitable for control measures due to physical site constraints and/or institutional barriers. All parcels within the EWMP area were therefore screened for suitability, and the remaining candidate parcels were ranked using quantitative prioritization metrics. The following subsections describe these methods.

Public Parcel Screening Criteria (LID on Public Parcels)

Retrofitting public parcels with BMPs can be an efficient strategy for reducing stormwater runoff. This method allows municipalities the flexibility to prioritize and schedule stormwater projects to coincide with improvements that are already on the books (such as scheduled parking lot resurfacing,

utility work, and public park improvements). Implementing LID on public parcels also allows municipalities the freedom to construct, inspect, and maintain BMPs without the need to purchase private property or to create stormwater easements.

A detailed discussion of regional project screening criteria was provided in [Appendix 5.X](#) (for sites that capture and treat offsite runoff). Additionally, a reconnaissance of aerial imagery was performed for all High and Medium Tier candidate parcels to assess the engineering suitability of each parcel for regional BMPs. Sites deemed unsuitable based on best professional judgment (i.e. sites located at the base of steep canyons or on hilltops, sites built out with extensive building footprints, etc.) were eliminated from the pool of opportunities.

The following criteria were used to screen potential sites for LID BMPs (to treat onsite runoff):

- **Ownership:** Public parcels in the EWMP area were first identified using their assessor's identification number. Private parcels are discussed in [the next subsection](#).
- **Slopes:** The identified list of public parcels underwent screening for slope because high slope areas tend to preclude efficient BMP retrofits. Areas with slopes greater than 10% were clipped out of the candidate parcels, while low slope parcel areas were retained as potential opportunities.
- **Soil contamination:** Infiltrating runoff near historical spills and cleanup sites can present a risk of mobilizing pollutants into the groundwater. To avoid potential problems, sites that were identified as open contamination cases (per the State of California GeoTracker database) were eliminated as unsuitable BMP retrofit opportunities. Sites that have been remediated or have closed cases were still considered as opportunities to provide BMP retrofits.
- **Receiving waters:** Sites located within the extents of open channels and receiving waters were screened out because compliance must be achieved at the point of discharge (e.g. runoff must be treated *before* it reaches the stream)

The results of desktop screening for LID BMPs on public parcels is tabulated in Table 6.C-2 and displayed in Figure 6.C-4. [Appendix 5.X](#) summarizes the available opportunity for regional BMPs. Note that the RAA assumed LID BMPs could be implemented on the identified public parcels to treat the *direct* runoff from the parcel proper, whereas regional BMPs could be co-located on the same parcel to treat *offsite* runoff.

Table 6.C-2. Screened public parcel LID retrofit opportunities¹⁴

Jurisdiction	Total Public Parcel Area Identified for LID Opportunity (acres)
Beverly Hills	96
City of Los Angeles	1,373
Culver City	81
Inglewood	58
Santa Monica	11
Unincorporated LA County	48
West Hollywood	39

¹⁴ Reported areas represent total parcel areas – the actual *BMP footprints* to be implemented on the screened parcels was identified in the RAA based on the design assumptions detailed in [Appendix 6.D](#).

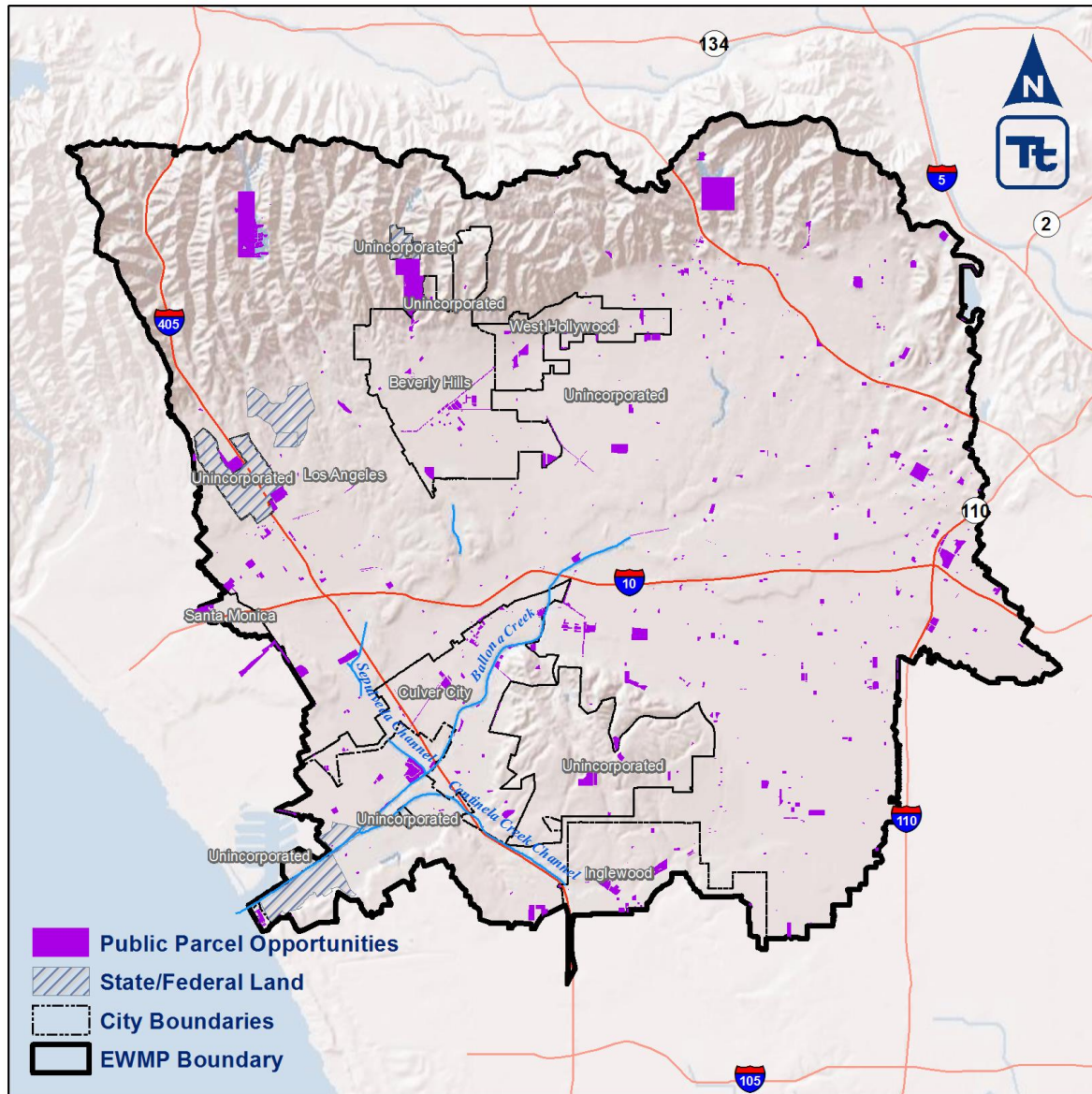


Figure 6.C-4. Screened Opportunities for LID on Public Parcels.

Notes: Regional and LID BMPs can be co-located on the same parcel, although their respective drainage areas do not overlap (LID treats the parcel, while regional BMPs treat the upstream area).

Private Parcel Screening (Residential LID and Redevelopment)

Distributed LID on private parcels was applied based on the relevant land use areas. High-density residential land areas were considered for residential LID opportunities at a predicted rate of 1% per year (starting in 2017); in other words, the RAA assumed that 1% of residences would implement LID measures to treat their parcels each year.

To represent LID due to redevelopment in the EWMP area, all developed land uses were considered. The land area redeveloped (and treated) was approximated using redevelopment forecasts for the

City of Los Angeles (Table 6.C-3; Los Angeles River Upper Reach 2 Watershed Management Area Cities, 2014). These area-weighted redevelopment rates were also applied to the developed land uses in other Group Member jurisdictions.

LID on private parcels represented in the EWMP is tabulated in Table 6.C-4 and shown visually in Figure 6.C-5.

Table 6.C-3. Forecasted redevelopment rates by land use

Modeled Land Use	Redevelopment Rate (2017-2021)
High-Density Residential	1.1%
Low-Density Residential	1.1%
Multi-Family Residential	1.1%
Commercial	1.0%
Institutional	1.0%
Industrial	2.2%

Table 6.C-4. Predicted areas treated by LID on private parcels

Jurisdiction	Total Acres Assumed Treated by Residential LID (2017-2021)	Total Acres Assumed Treated by LID due to Redevelopment (2017-2021)
Beverly Hills	45	29
City of Los Angeles	632	472
Culver City	30	30
Inglewood	19	17
Santa Monica	3	2
Unincorporated LA County	41	30
West Hollywood	3	10

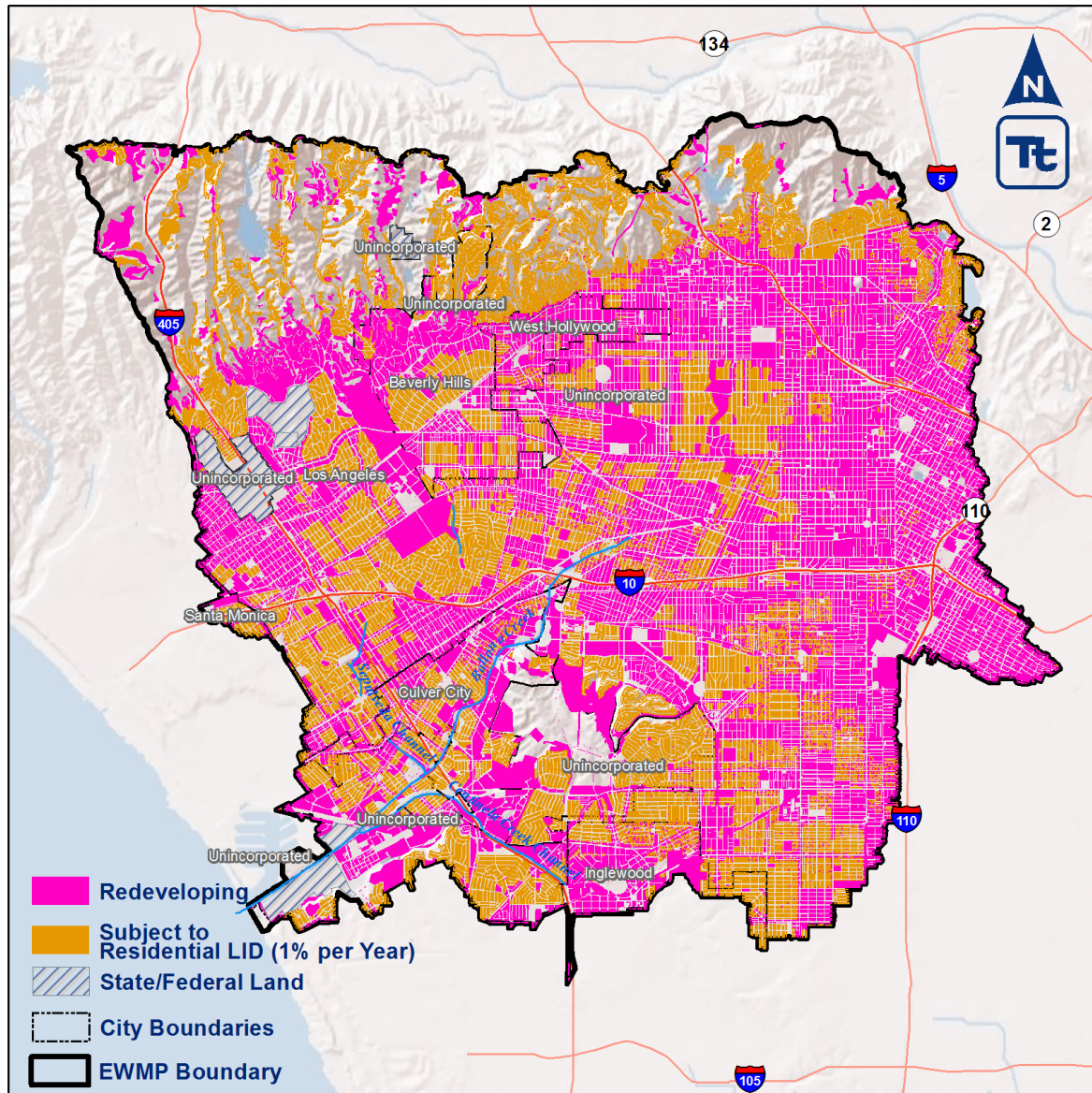


Figure 6.C-5. LID on Private Parcels Represented in the EWMP.

Notes: Displayed opportunities are distributed proportionally by land use throughout the EWMP area at the rates specified in Table 6.C-4.

Street Screening Methods

Stormwater BMPs in the right-of-way are treatment systems arranged linearly within the street corridor and are designed to reduce runoff volumes and improve runoff water quality from the roadway and adjacent parcels. Implementing BMPs in the right-of-way provides an opportunity to meet water quality goals by locating BMPs in areas owned or controlled by a municipality to avoid the cost of land acquisition or establishing an easement. Implementing street retrofit opportunities allows for direct control of construction, maintenance, and monitoring activities by the responsible jurisdiction.

Not all roads are suited for right-of-way BMP retrofits; therefore, screening is required to eliminate roads where green street retrofits are impractical or infeasible due to physical constraints. While right-of-way BMP retrofits can be implemented in a variety of settings, the physical characteristics of the road itself such as the road type, local topography, and depth to groundwater can significantly influence the practicality of designing and constructing these features. A screening protocol was established to identify realistic opportunities for retrofits based on the best available GIS data, as listed in Table 6.C-1, and supplemented with the Topologically Integrated Geographic Encoding and Reference (TIGER) Census roads data.

Streets were screened based on the following criteria:

- **Road Functional Class:** High traffic volumes, speed limits, and slopes impact the feasibility of green infrastructure implementation along street corridors. Road classification data contains information typically useful for determining if the street is subject to high traffic volumes and speeds, and Census TIGER road data provides the best available road classification information for the study area. Table 6.C-5 shows the Master Address File (MAF)/TIGER Feature Classification Codes (MTFCC) deemed appropriate for street retrofit opportunities. Only roads with the MTFCCs listed in Table 6.C-5 were considered for street retrofits in this screening analysis. All other roads were screened out.
- **Slopes:** In addition to the screening of road types, opportunities were further screened to remove segments that have steep slopes. BMP implementation on streets with grades greater than 10 percent present engineering challenges that substantially reduce the cost effectiveness of the retrofit opportunity. From the available WMMS slope information, roads were considered as retrofit opportunities if the slope was less than 10 percent.

The results of the street screening are presented in Table 6.C-6 and shown in Figure 6.C-6. Note that the analysis screened many roads out of the Ballona Creek EWMP area due to high slopes.

Table 6.C-5. Green Street BMP Assumed Suitable MTFCC

MTFCC	Description
S1400	Local neighborhood road, rural road, city street
S1730	Alley
S1780	Parking lot road

Table 6.C-6. Screened potential green street opportunities

Jurisdiction	Total Green Street Volume Considered in Model (acre-ft)	Total Approximate Direct ¹⁵ Drainage Area to Screened Street Opportunities (acres)	Approximate Length of Screened Green Street Opportunity (miles of frontage length) ¹⁶
Beverly Hills	93.1	2,459	214
City of Los Angeles	1,732.1	36,492	2,821
Culver City	75.6	1,978	149

¹⁵ Recall that upstream BMPs such as LID on parcels, and their associated drainage areas, are also ultimately routed to green streets.

¹⁶ Note that this is total screened *frontage* length (not *road* length or *BMP* length). The road length is approximately one half of the reported frontage, and the required green street BMP lengths were determined in the RAA based on the assumptions in [Appendix 6.D](#). Reported lengths are conceptual and will vary depending up on BMP configuration.

Inglewood	42.1	1,347	97
Santa Monica	4.3	121	10
Unincorporated LA County	46.5	1,595	101
West Hollywood	33.9	781	59

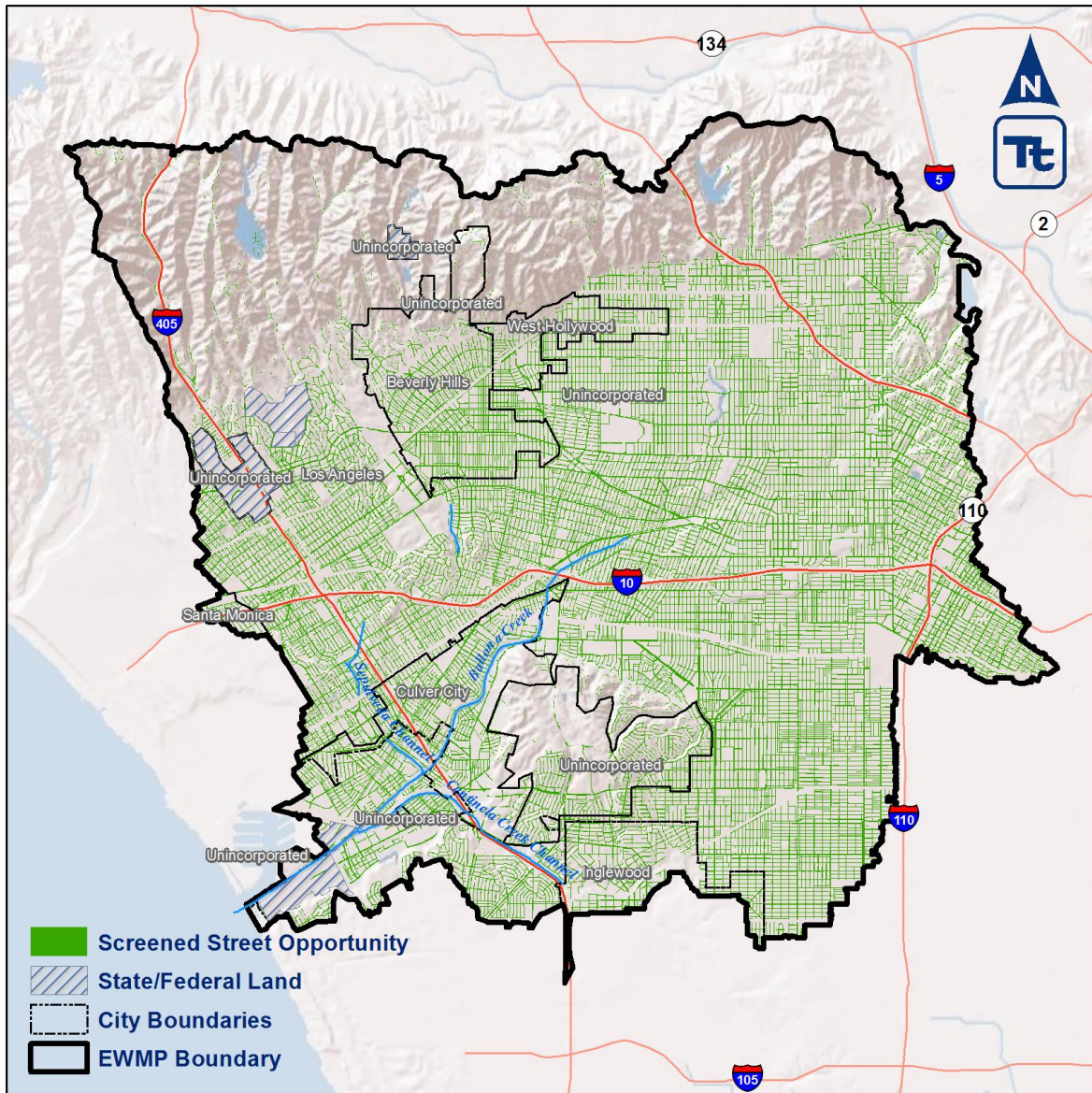


Figure 6.C-6. Screened Potential Green Street Locations.

References

Los Angeles River Upper Reach 2 Watershed Management Area Cities (City of Bell, City of Bell Gardens, City of Cudahy, City of Maywood, Los Angeles Flood Control District). 2014. Los Angeles

River Upper Reach 2 Watershed Management Area Watershed Management Program (WMP) Plan
DRAFT. Prepared for the Los Angeles Gateway Region Integrated Regional Water Management
Authority.

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Appendix 6.D

Control Measure Design and Representation

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This appendix presents details on BMP design assumptions. These assumptions were generated using best available data to represent the opportunities and limitations within the BC EWMP area. For the EWMP to meet its full potential as a planning document, it is essential that the control measure assumptions provide a definitive link between the RAA and actual implementation efforts that are aligned with Group Member preferences. Group Members were therefore surveyed and the resulting preferences used to inform the RAA are listed in Table 6D-7.

The routing schematic used for BMP routing in the RAA model (SUSTAIN) is shown in **Figure 6D-1**. Note that hydrologic response units (HRU) are analogous with land uses for many purposes. Discrete land uses are routed to different types of BMPs. For example, residential HRUs/land uses are routed to residential LID. The allocations and available BMP opportunities vary by jurisdiction and watershed. Runoff from non-EWMP and non-MS4 permittees – including non-traditional Phase 2 MS4 areas, parcels with industrial stormwater permits, the extent of the Caltrans right-of-way, and federal and state lands – was not routed to BMPs and was excluded from compliance target calculations.

Recall that cost functions were presented in Section 6 of the EWMP.

Table 6D-7. Jurisdictional BMP Preferences

Jurisdiction	Institutional	LID Ordinance	Residential LID	LID on Municipal Parcels	Permeable Pavement	Very High/High Regional	Regional/LID on Schools
Beverly Hills	5%	Yes	Yes	Yes	Yes	Yes	No
City of Los Angeles	5%	Yes	Yes	Yes	Yes	Yes	No
Culver City	5%	Yes	Yes	Yes	Yes	Yes	No
Inglewood	5%	Yes	Yes	Yes	Yes	Yes	No
Santa Monica	5%	Yes	Yes	Yes	Yes	Yes	Yes
Unincorporated LA County	5%	Yes	Yes	Yes	Yes	n/a	Yes
West Hollywood	5%	Yes	Yes	Yes	Yes	Yes	Yes ¹⁷

¹⁷ Also prefer to include non-WMG-owned parcels, such as Metro Transit Authority parcels.

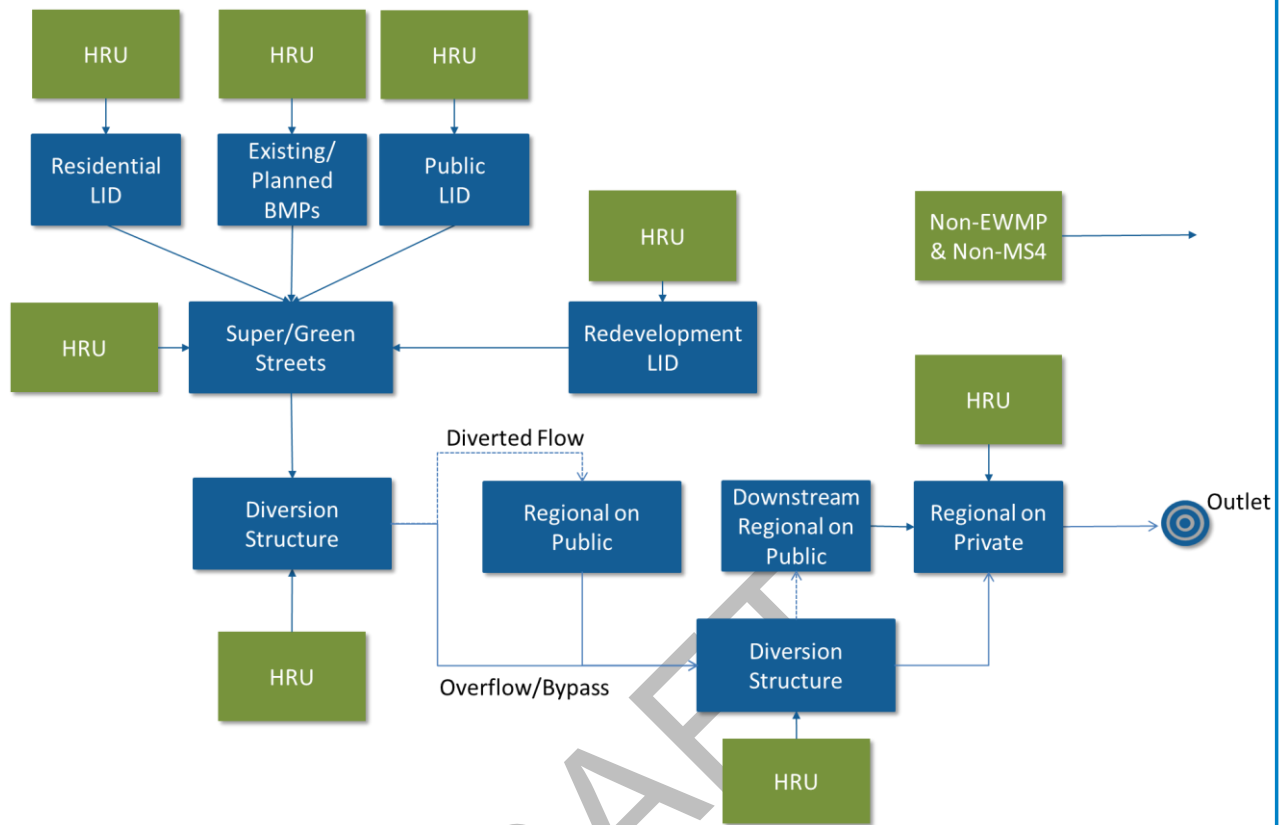


Figure 6D-7. Conceptual schematic illustrating BMP routing for the RAA

Institutional BMPs

It was assumed institutional BMPs will reduce 5% of the target load, and this reduction was assumed implicitly, e.g., no modeling was performed.

Existing/Planned Distributed BMPs, LID on Public Parcels, Redevelopment

Table 6.D-8 provides the modeled sizing criteria for existing/planned distributed BMPs, LID on public parcels, and redevelopment LID. The public parcels considered for LID included screened parcels owned by the Group members; schools and parcels owned by other entities were also considered if directed by Group members. The rate of redevelopment was presented in [Appendix 6.C](#).

Table 6.D-8. Existing/Planned Infiltration/Filtration BMP design criteria

Parameter		Value	Units
Surface	Design Drainage Area	Sized to capture 85 th percentile volume	
	BMP Footprint		
	Ponding Depth	9	in.
Soil	Depth	2	ft.
	Media Porosity	0.35	n/a
	Media Infiltration Rate	2	in/hr

Underdrain	Use underdrain if underlying soils are less than	0.3	<i>In/hr</i>
	Depth	1.5	<i>ft.</i>
	Media Porosity	0.4	<i>n/a</i>
	Subsoil Infiltration Rate	<i>Match underlying soils</i>	
Cost	<i>Use bioretention cost functions</i>		

Regional BMPs on Public Parcels

The assumptions for modeling the High and Medium Tier regional facilities are listed below in Table 6.D-9. High Tier facilities included only the screened, municipally owned public parcels, while Medium Tier facilities included schools and parcels owned by other entities (if included upon the direction of the Group members). Assumptions governing Very High tier facilities were specified on a site-by-site basis per aerial investigations and planning-level site layouts. A total of 20 Very High tier facilities were included in the RAA per Group member input.

Table 6.D-9. High Tier regional facility on public parcels design criteria

Parameter		Value	Units	Notes
Surface	Design Drainage Area	<i>Specified explicitly for each BMP</i>		
	BMP Footprint			
	Ponding Depth	3	<i>ft</i>	<i>Assumed</i>
	Overflow Weir Length	100	<i>ft</i>	<i>Assumed to allow free overflow</i>
	Extended Detention via Outlet Structure Required if Underlying Soil Infiltration Rate less than	0.3	<i>In/hr</i>	<i>Allows Dewatering within 5 Days</i>
	Assumed Dewatering Time if Extended Detention is Required	3-5	<i>days</i>	
	Assumed Permanent Pool Depth	0	<i>ft</i>	<i>All Volume Dewatered</i>
Diversion Type	<i>Assumed pumped if major storm drain greater than 100 ft from BMP (maximum 20 cfs pump capacity). Used optimum diversion rate of 0.09 cfs per contributing acreage if BMP less than 100 ft from major storm drain</i>			
Cost	<i>Use regional project cost functions</i>			

Green Streets

Green street design criteria and drainage areas are provided in **Table 6.D-10** below, and permeable pavement is included to simulate “additional storage”, which would be in the form of permeable pavements, suspended pavements, or other subsurface storage. Certain high-efficiency BMPs (green street opportunities undersized relative to their contributing drainage area) are inherently acknowledged in the subwatershed-scale model inputs, but such opportunities must be identified with street-scale analyses.

Table 6.D-10. Green Street BMP design criteria

Parameter	Value	Units
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Bioretention Assumptions			
Surface	Design Drainage Area	Specified for each jurisdiction, subwatershed and land use combination based on available opportunities	
	BMP Footprint		
	Ponding Depth	7	in.
Soil	Depth	2	ft.
	Media Porosity	0.35	n/a
	Media Infiltration Rate	2	in/hr
Underdrain	Use underdrain if underlying soils are less than	0.3	In/hr
	Depth	1.5	ft.
	Media Porosity	0.4	n/a
	Subsoil infiltration Rate	Match underlying soils	
Cost	Use bioretention cost functions		
Permeable Pavement Assumptions			
Surface	Design Drainage Area	Specified for each jurisdiction, subwatershed and land use combination based on available opportunities	
	BMP Footprint		
	Ponding Depth	0.12	in.
Aggregate	Depth	2	ft.
	Media Porosity	0.4	n/a
	Media Infiltration Rate	2	in/hr
Underdrain	Use underdrain if underlying soils are less than	0.3	In/hr
	Depth	1.5	ft.
	Media Porosity	0.4	n/a
	Subsoil Infiltration Rate	Match underlying soils	
Cost	Use permeable pavement cost functions		

LID on Private Residential Parcels

Model inputs assumed that 1% of homeowners per year (starting in 2017) would participate in residential LID programs. Assumptions for LID on private residential parcels are presented in Table 6.D-11.

Table 6.D-11. Residential LID design criteria

Parameter		Value	Units
Surface	Design Drainage Area	1% of WMMS high-density residential land use within each jurisdiction per year	
	BMP Footprint	4	% of drainage area (e.g., footprint as percentage of each retrofitted parcel)
	Ponding Depth	9	in.
Soil	Depth	2	ft.
	Media Porosity	0.35	n/a
	Media Infiltration Rate	Match underlying soils	
Cost	Use LID on Residential cost functions		

Regional Projects on Acquired Private Parcels

Remaining untreated areas and effluent from upstream BMPs are assumed to drain to private parcels that have the potential to provide regional BMP opportunities. For the purposes of the RAA, these BMP opportunities are assumed to be infiltration basins. Table 6.D-12 provides a summary of the design criteria for these BMPs.

Table 6.D-12. Design criteria for regional BMPs on private parcels

Parameter		Value	Units
Infiltration Basin			
Surface	Design Drainage Area	All areas not routed to upstream BMPs	
	Maximum BMP Footprint	5	% of directly contributing drainage area
	Ponding Depth	36	in.
	Dewatering Mechanism	No Dewatering – Assume fully infiltrating.	
Diversion Type	Assume 100% flow routed to facility		
Cost	Use Regional Project on Private Parcel cost functions		

BMP Performance Analysis

This section presents the results of a statistical analysis of available BMP performance data relevant to southern California. The goal was to review and summarize data regarding performance of BMPs for reducing constituents of concern from stormwater and non-stormwater flows. The scope of work specified the analysis should be based on data provided by the BCWMG, specific to southern California, and analyzed in consideration of applicable MS4 Permit limitations. Few BMP performance data were available from the BCWMGs, and thus external data were compiled as described below. The compiled dataset is extensive and appendices are presented through web links (to avoid complications with printing).

The following sections provide an overview of the data sources, description of statistical methods, and summary of the results of the statistical analysis.

Data Sources for BMP Performance Data

Data for the BMP performance analysis were derived from the IBD, the most extensive effort to collect and distribute BMP performance data in the US. The IBD is sponsored by USEPA, WERF, the American Society of Civil Engineers (ASCE)/Environmental and Water Resources Institute (EWRI), the American Public Works Association (APWA), and the Federal Highway Administration (FHWA). The stated purpose of the project is “to provide scientifically sound information to improve the design, selection and performance of BMPs.”

The currently (Nov 2013) available sites with monitoring data in Southern California are displayed in **Figure 6.D-15**. There are 44 sites that have data within the mapped area and the sites have a total of 58 BMPs that were sampled. Each of these BMPs in the IBD was mapped to the categories and subcategories established in Section 2 (see Table 2-3). Many of the BMPs, particularly bioswales, are owned and operated by Caltrans and therefore implemented on roadways, maintenance stations, and park and ride facilities.

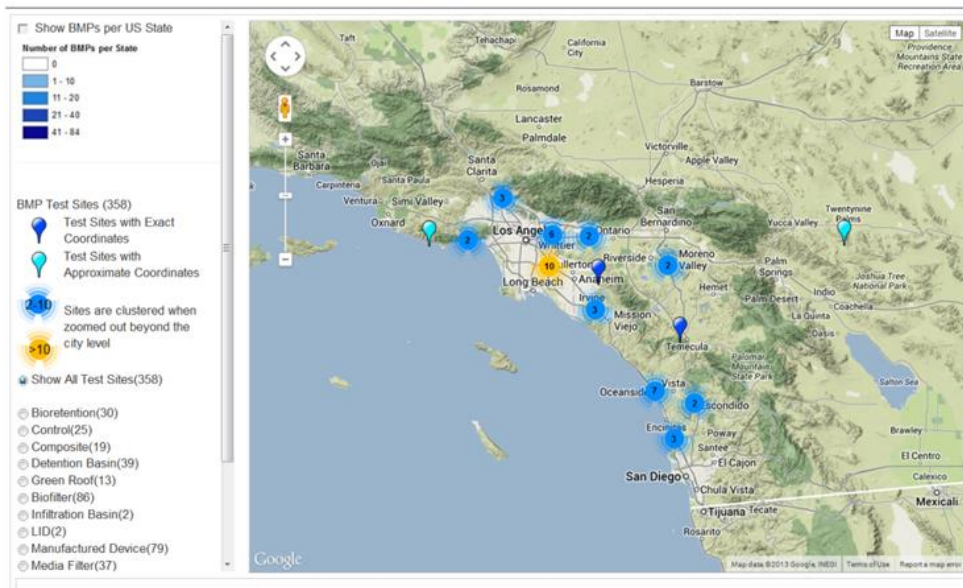


Figure 6.D-15 Southern California BMPs from the International BMP Database

(www.bmpdatabase.org)

Description of Analyzed Data

Analysis of BMP data in the International BMP database collected from Southern California provides a cross-section of structural BMP results and constituents. The following provides an overview of the data characteristics:

- **BMP types:** The BMPs in the IBD were categorized according to those defined in **Appendix 4**, after review of the BMP design details. Five of the BMP subcategories were represented in the IBD for the Southern California region, including the following:
 - Constructed wetlands
 - Site-scale detention

- Bioswales
- Flow through Treatment BMPs
- Catch basin inserts
- **Constituents:** The IBD contains sample data for hundreds of constituents ranging from metals to pesticides. This analysis herein emphasized a subset of constituents referred to herein as “common constituents of concern”, as follows:
 - Total suspended solids (TSS)
 - Fecal coliform
 - Total copper
 - Total lead, and
 - Total zinc

Beyond these five constituents, the database was screened for additional constituents with sufficient data to perform analysis and results. Based on this screening, an additional 18 constituents were identified, for a total of 23 constituents. To assist with organization and presentation of the results, each of the 23 constituents was categorized into four groups as follows (shown in [Table 6.D-4](#)):

- Metals
- Bacteria
- Solids, and
- Nutrients.
- **Land uses:** A majority of the BMPs are located primarily for transportation related sites. Other major land use categories such as residential, commercial, and industrial are not heavily represented in the analysis herein. However, the effluent concentrations and performance metrics are still generally considered applicable to non-transportation land uses. Many bioswales were included in the analysis, which allowed for grouping of bioswales into three categories: “all”, “Caltrans”, and “Non-Caltrans.”
- **Monitoring methods:** The majority of the data from the IBD are based on flow-weighted composite (FWC) samples which is the generally preferred practice. FWC samples provide a better measurement of the total load from a storm event and most accurately portray the removal efficiency of BMPs. These types of samples can be used to generate good event mean concentrations (EMCs) that can be used to calibrate water quality models. The analysis herein emphasizes reduction in concentrations of constituents. Flow reduction is heavily site- and storm-specific (depended on rainfall intensity, soil types, antecedent conditions, etc.) and can be predicted through other means (e.g., modeling during the RAA).

Statistical Analysis

The statistical analysis herein is primary based on three metrics:

- Tabular summary statistics of inflow and outflow from BMPs (mean, median, percentiles, etc.)
- Graphical presentation of the inflow and outflow using box plots
- Tabular presentation of constituent reductions and tests for statistical significance of differences between inflow and outflow

It is acknowledged that “percent reduction” is a BMP performance metric that deserves caveats (see the article “Voodoo Hydrology” in the July 2006 article of Stormwater Magazine, http://www.stormh2o.com/SW/Articles/Voodoo_Hydrology_37.aspx). Percent reduction is a readily-understandable BMP performance metric, and it is also convenient for reporting a compact form (as shown in Table 6.D-4). However, BMP performance is ultimately characterized by both the reduction of pollutants from inflow to outflow and the concentration of constituents in the outflow. For this analysis, percent reduction is presented as a simple metric to compare different BMPs across different storm and land use conditions. In addition, inflow and outflow datasets were analyzed separately, in order to characterize the quality of BMP outfalls and allow for future comparison to permit limitations.

An emphasis of the analysis herein was handling of non-detected samples. The approach to handling non-detects can greatly affect estimated summary statistics. For the BMP performance analysis herein, statistical analyses of measured concentrations were based on regression-on-order statistics (ROS). The primary advantage/purpose of the ROS approach is to account for sample limits of detection (SLODs) in samples that were non-detect (referred to as “censored”). An Excel add-in developed by Caltrans was used to generate ROS, for which the primary references for the statistical procedures are Shumway and Azari (2000) and Helsel (1990).

Table 6.D-4 Mean and Median Percent Removal from Inflow to Outflow for All Pollutants and BMP Categories

Constituent Group	Pollutant	BioSwale (All)		BioSwale (Caltrans)		BioSwale (Non-Caltrans)		Constructed Wetland		Flow Through Treatment BMP		Site Scale Detention	
		% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median
Metals	Total Arsenic	-51.14%	-21.85%	21.19%	29.33%	-70.90%	-44.19%	-64.23%	-65.00%	-11.57%	-18.52%	-19.56%	-24.00%
	Total Cadmium	-51.15%	-58.47%	-15.99%	-49.52%	-68.14%	-66.32%	-74.50%	-62.40%	1.22%	-48.00%	-53.72%	-49.44%
	Total Chromium	-24.85%	-42.03%	-21.11%	-28.38%	-27.37%	-61.06%	-81.54%	-88.30%	-35.10%	-37.04%	-60.67%	-50.00%
	Total Copper	-69.02%	-68.29%	-59.24%	-60.98%	-70.39%	-60.32%	-98.02%	-85.81%	-55.03%	-38.89%	-51.83%	-48.04%
	Total Iron	-57.30%	-61.20%	-48.56%	-47.57%	---	---	---	---	---	---	---	---
	Total Lead	-75.46%	-77.05%	-69.92%	-75.02%	-76.11%	-67.68%	-98.11%	-97.41%	-63.71%	-76.15%	-66.23%	-59.26%
	Total Nickel	-59.02%	-64.38%	-41.24%	-46.58%	-69.50%	-72.97%	-48.11%	-36.78%	-21.04%	-28.57%	-62.53%	-45.21%
	Total Zinc	-74.08%	-75.66%	-71.53%	-76.14%	-71.42%	-68.65%	-84.48%	-85.56%	-62.40%	-74.89%	-68.98%	-64.64%
Bacteria	Fecal Coliform	-13.70%	-82.00%	---	---	-13.70%	-82.00%	-94.54%	-92.69%	-26.36%	-91.43%	99.1%	41.7%
	Total Coliform	---	---	---	---	---	---	-0.18%	-62.97%	-99.91%	-99.90%	---	---
Solids	Total Suspended Solids	-50.46%	-59.21%	-24.21%	-51.28%	-61.37%	-58.33%	-94.55%	-95.22%	-65.0%	-82.28%	-62.82%	-62.00%
	Total Dissolved Solids	-3.72%	7.32%	17.58%	12.36%	-17.36%	-2.50%	+1169%	1739%	12.12%	16.67%	-0.29%	0.00%
	Turbidity	-62.65%	-50.67%	-62.65%	-50.67%	---	---	---	---	---	---	---	---
Nutrients	Kjeldahl nitrogen (TKN)	-18.52%	-15.00%	29.02%	16.67%	-31.74%	-25.24%	-22.91%	8.33%	-24.22%	-30.97%	-14.86%	-20.21%
	Nitrogen, ammonia as N	15.93%	-25.50%	40.91%	-9.04%	---	---	-61.86%	-57.14%	28.35%	50.00%	---	---
	Nitrogen, Nitrate (NO3) as N	-12.14%	-21.25%	13.77%	-1.31%	-22.54%	-23.29%	-66.90%	-87.87%	24.13%	41.41%	-13.89%	-10.59%
	Nitrogen, Nitrite (NO2) as N	89.01%	31.91%	89.01%	31.91%	---	---	-100%	-100%	---	---	---	---
	Nitrogen, unionized ammonia (NH3) as N	---	---	---	---	---	---	---	---	-56.11%	-62.50%	---	---
	Organic carbon, Dissolved	-10.96%	7.50%	17.74%	34.02%	-28.27%	-14.14%	-32.54%	-40.91%	-1.43%	-7.14%	6.92%	9.09%
	Organic carbon, Total	-13.17%	0.00%	15.30%	18.18%	-29.70%	-5.56%	-23.90%	-6.67%	-4.78%	-12.79%	0.68%	6.06%
	Phosphorus as P, Dissolved	+263%	+250%	---	---	+263.42%	+250.00%	+186.92%	90.18%	-7.14%	-11.11%	-3.15%	22.22%
	Phosphorus as P, Total	+125%	+100%	+219%	+269%	92.89%	68.18%	-19.33%	-14.29%	-34.10%	-25.00%	-35.61%	-19.44%
	Phosphorus, orthophosphate as P	+369%	+553%	+531%	+795%	59.09%	31.91%	---	---	---	---	---	---

Notes

1: Bolded, orange values indicate statistically different inflow and outflow concentrations based on 95% confidence intervals.

2: If insufficient data were available to calculate the % removal, then --- is shown.

3: Catch basin inserts are not shown because effluent data were insufficient.

Results

The analysis performed under this task produced thousands of statistical measures that can be used to evaluate BMPs. These results will support the RAA, by supporting assumptions regarding effluent concentrations from some BMPs. The results are presented in formats that are designed to allow readers to focus on both absolute (inflow and outflow concentrations) and relative performance of BMPs (percent reductions) for individual constituents and groups of constituents. As mentioned previously, extensive appendices were generated and are available for web download. The results of the analysis are presented as follows:

- **Percent removal:** the results in Table 2-4 provide mean and median removal percentages for the BMPs and for each of the 22 POCs analyzed. The table can be used to evaluate relative performance across constituent and BMP categories.
- **Inflow and outfall concentrations for common POCs:** Shown in Table 6.C-5 thru Table 6.C-9 are comparisons of standard statistics for the five available BMP categories across each of the common POCs. The corresponding box plots in Figures 6.C-16 thru Figure 6.C-20 graphically represent the range of inflow versus outflow performance for the BMP categories.
- **Inflow and outflow concentrations for all 22 constituents:** Standard statistics, including significance testing of percent reductions, for all constituents are included in Section 0.
- **Performance statistics and box plots for all constituents:** Extensive summary statistics and box plots of BMP performance across the BMP categories are included in Section 0.

The presented box plots include whiskers that span from the 10th to 90th percentiles and display outliers, defined as values that are more than 1.5 times the inner quartile range beyond the median. These outliers are included in all the generated summary statistics. This approach is consistent with technical memorandums on the IBD website.

Table 6.D-5 Inflow/Outflow Summary Statistics for TSS (mg/l)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	69	75	23	100	38	169	59
Bioswales	31	31	159	103	45.0	18.0	76.0	31.0	130	54
Catch Basin Inserts	0	6	---	88	---	20	---	37.5	---	71
Flow Through Treatment BMPs	13	13	230	218	8.875	2.875	39.5	7.00	89.25	22.25
Constructed Wetlands	1	1	13	14	140	3.50	230	11.0	255	13.5

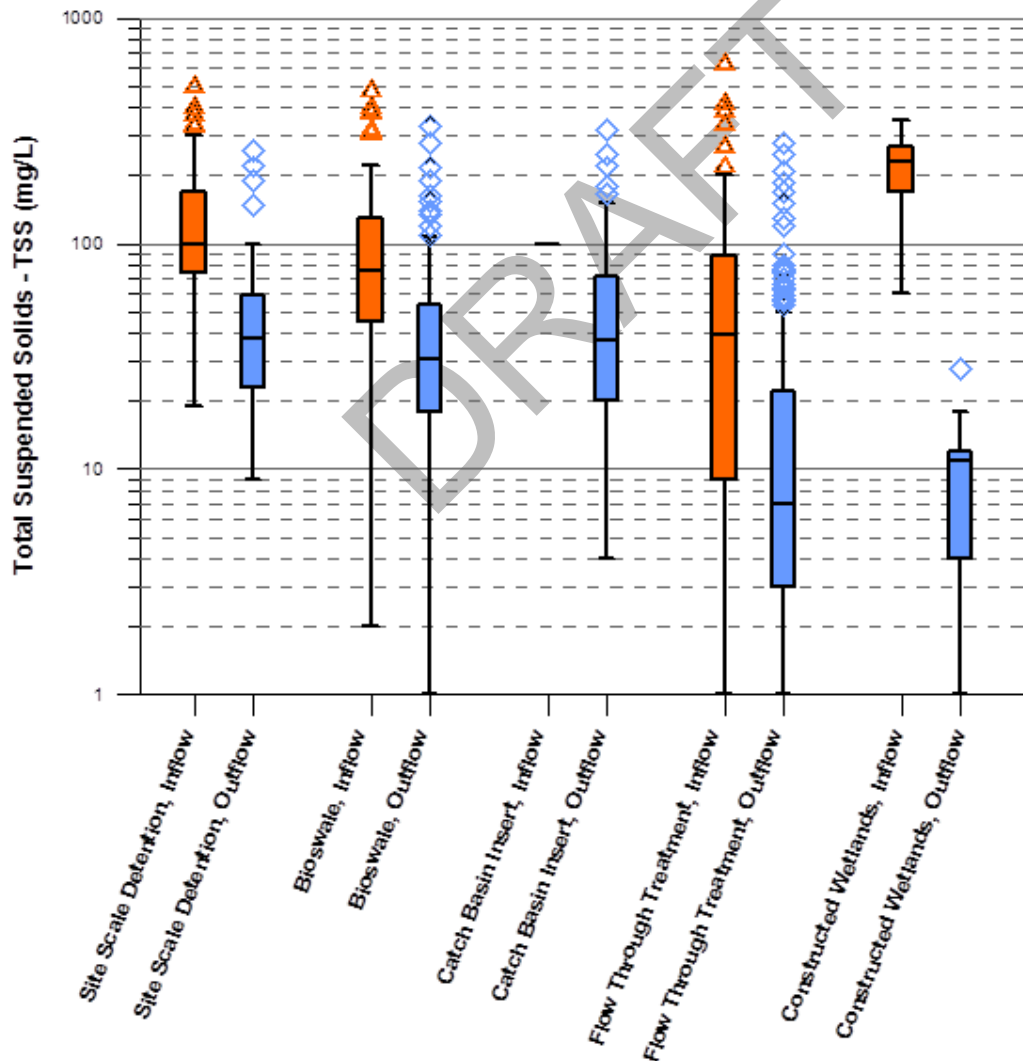


Figure 6.D-16 Box Plots of Inflow/Outflow TSS Concentrations in Southern California

Table 6.D-6 Inflow/Outflow Summary Statistics for Fecal Coliform (#/100mL)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	9	9	34	30	300	475	600	850	1700	3075
Bioswales	8	8	33	19	500	130	5000	900	16500	5000
Catch Basin Inserts	0	6	---	---	---	---	---	---	---	---
Flow Through Treatment BMPs	11	11	172	152	300	7.47	900	77.1	3000	797
Constructed Wetlands	2	2	13	14	230	20.0	1300	95.0	3800	255

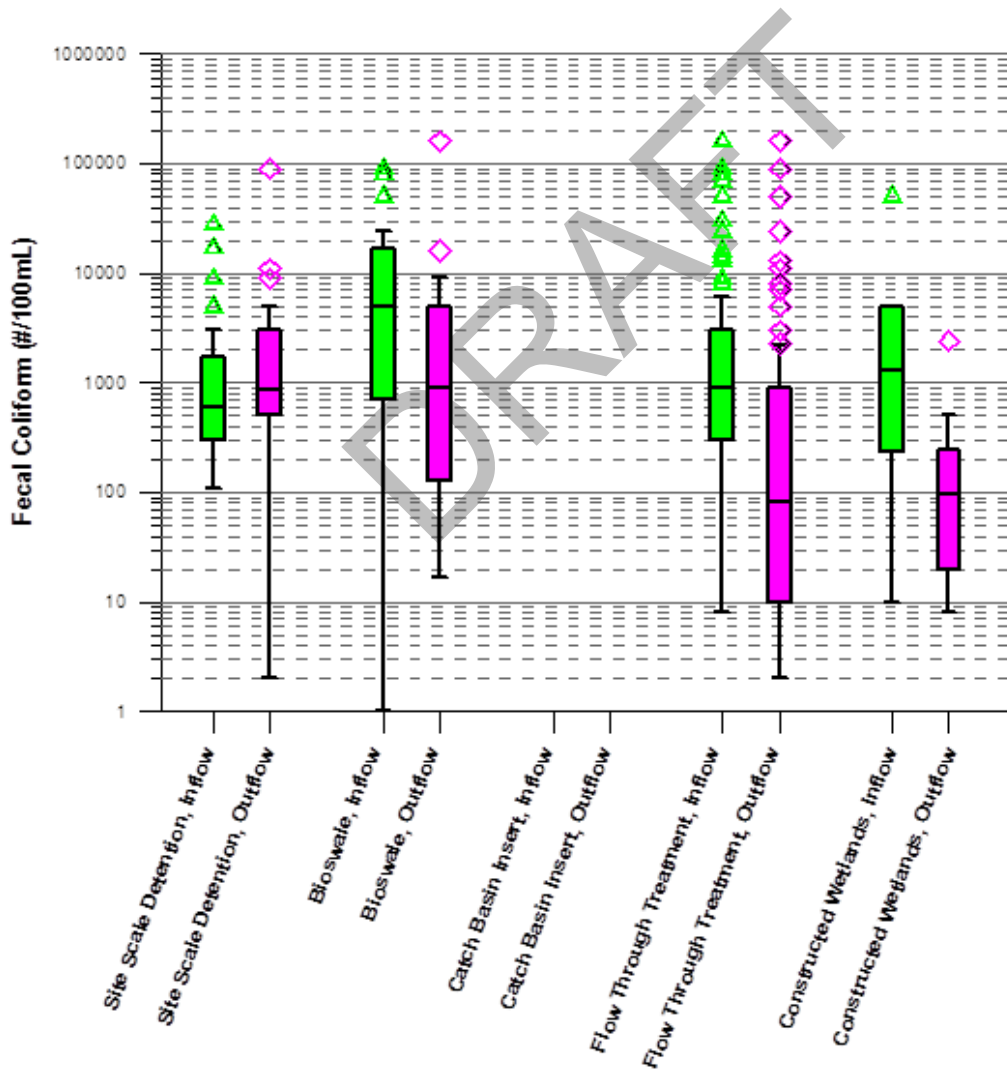


Figure 6.D-17 Box Plots of Inflow/Outflow Fecal Coliform Concentrations in Southern California

Table 6.D-7 Inflow/Outflow Summary Statistics for Copper ($\mu\text{g/l}$)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	68	26.25	15.00	39.45	20.50	63.75	28.00
Bioswales	31	31	150	100	22.00	8.23	41.00	13.00	70.50	19.90
Catch Basin Inserts	0	6	---	88	---	5.95	---	13	---	22
Flow Through Treatment BMPs	11	11	150	146	11.98	6.20	18.00	11.00	33.00	21.25
Constructed Wetlands	2	2	21	22	11.15	5.55	62.00	8.80	110.00	14.75

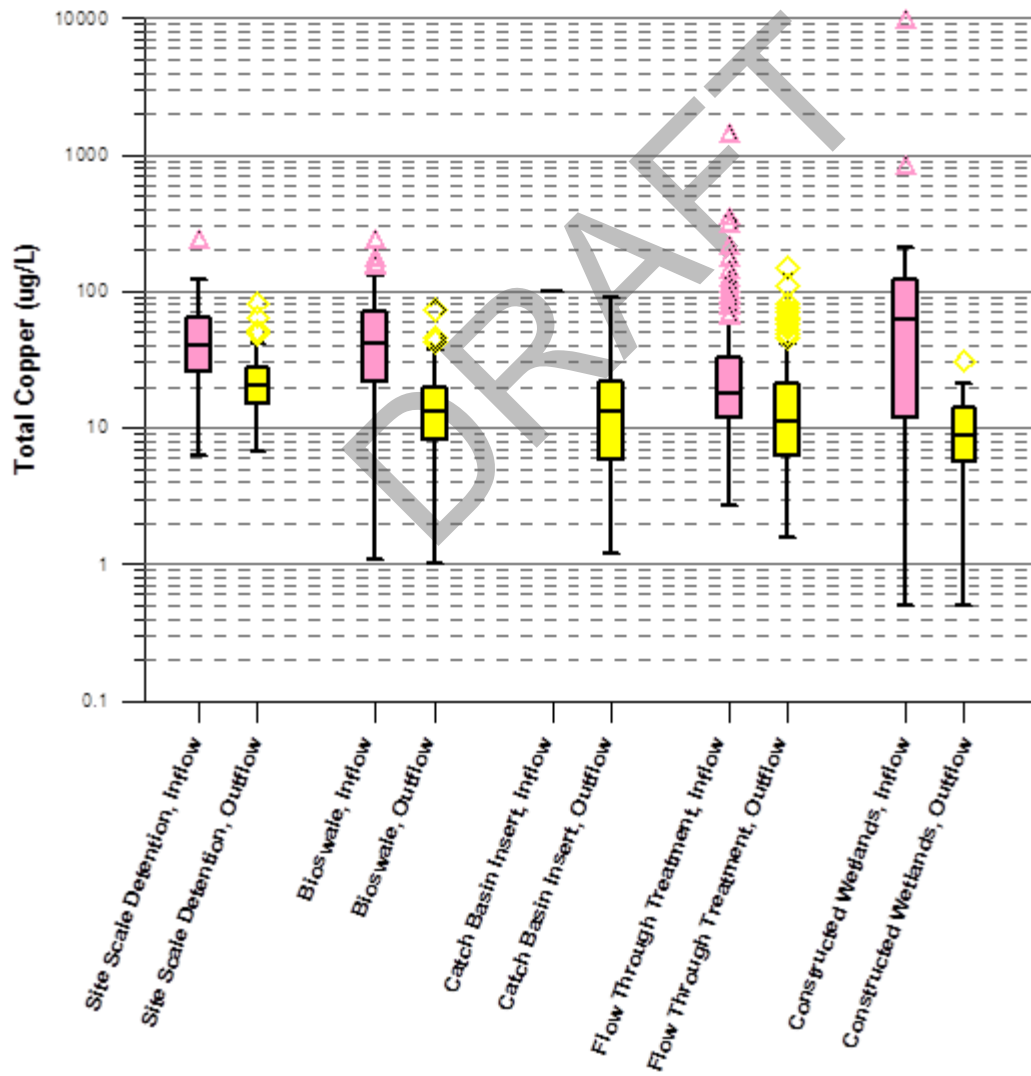


Figure 6.D-18 Box Plots of Inflow/Outflow Copper Concentrations in Southern California

Table 6.D-8 Inflow/Outflow Summary Statistics for Lead ($\mu\text{g/l}$)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	69	34.40	13.00	54.00	22.00	108.25	36.50
Bioswales	31	31	150	100	13.92	3.53	32.89	7.55	77.75	21.50
Catch Basin Inserts	0	6	---	88	---	2.3	---	6	---	12.45
Flow Through Treatment BMPs	11	11	149	146	6.50	1.00	13.00	3.10	25.50	7.10
Constructed Wetlands	2	2	21	22	3.32	2.70	170.00	4.40	315.00	8.32

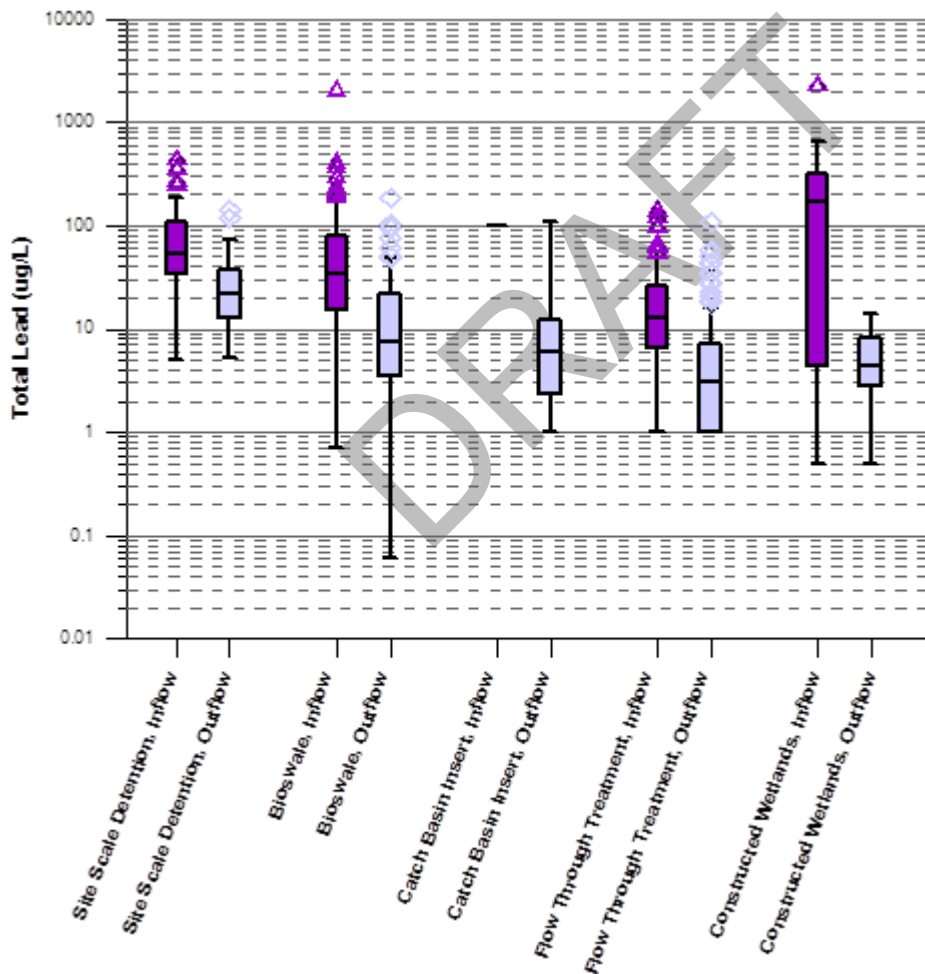


Figure 6.D-19 Box Plots of Inflow/Outflow Lead Concentrations in Southern California

Table 6.D-9 Inflow/Outflow Summary Statistics for Zinc ($\mu\text{g/l}$)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	68	152.75	68.25	280.00	99.00	504.75	150.00
Bioswales	31	31	150	100	110	29.5	228	55.5	360	82.5
Catch Basin Inserts	0	6	---	88	---	50.5	---	107	---	220
Flow Through Treatment BMPs	11	11	150	146	110	23.00	221	55.5	400	131
Constructed Wetlands	2	2	21	22	109.00	28.53	270.00	39.00	450.00	84.35

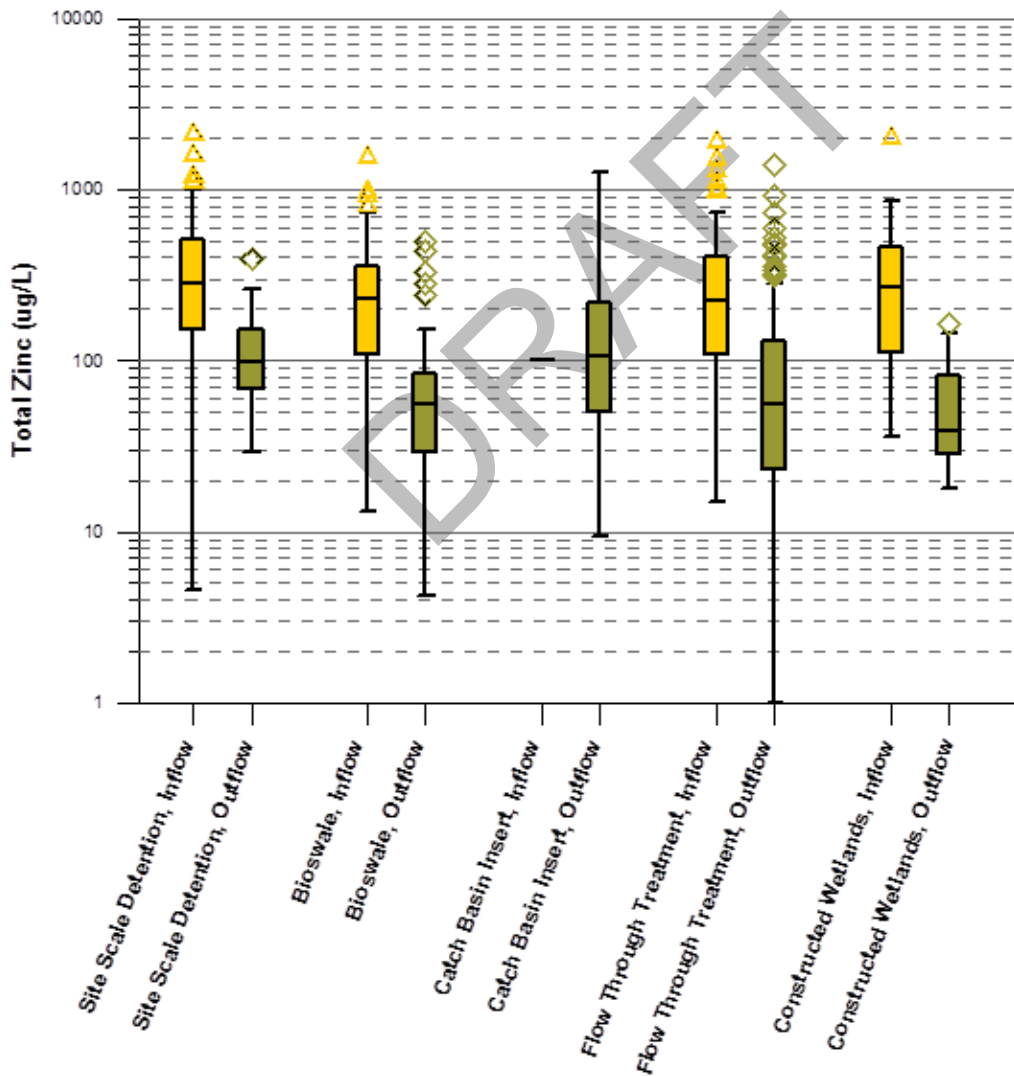


Figure 6.D-20 Box Plots of Inflow/Outflow Lead Concentrations in Southern California

Discussion and Observations regarding BMP Performance

The statistical analysis presented herein has many applications, including supporting the RAA for the EWMP. As future applications are undertaken, the results can be analyzed in more detail. For this Work Plan, several general observations are highlighted, as follows:

- **Comparison of outflow quality among BMPs:** the constructed wetland (n = 2) and flow through treatment BMPs (n = 31) generally exhibited the highest quality effluent. Reductions of TSS were generally higher compared to other BMPs and concentrations of TSS in outflows were generally lower (see Table 6.D-5 and Figure 6.D-16). Elevated performance is also apparent for other constituents. The constructed wetlands exhibited exceptional reductions (>84 percent) of total copper, lead, and zinc. Constituents were likely reduced in the constructed wetlands by means of sedimentation, chemical and biological conversions, and uptake. The flow through treatment BMPs in the dataset were mostly Caltrans BMPs including media filters and proprietary cartridge filters with a range of sand/peat and sand/gravel mixes.
- **BMP performance for individual constituents:** among the constituents analyzed, the percent removals were often the highest for total metals, especially lead and zinc (Tables 6.D-8 and 6.D-9). The poorest performance was often for nutrients, with phosphorous concentrations increasing in some cases (likely due to leaching). For bacteria, only the constructed wetlands and flow through treatment BMPs were able to generate outflows with median fecal coliform concentrations less than 235 most probable number (MPN) per 100mL (which is an applicable Permit limitation if fecal coliform is assumed equivalent to *Escherichia coli* [*E. coli*]) (see Table 6.D-6 and Figure 6.D-17).
- **Application of the data herein for the RAA effort:** in general, the majority of pollutant removal associated with potential stormwater BMPs in the RAA will be due to volume reduction (infiltration). SUSTAIN, which will be used for the RAA, is process-based and thus is able to estimate volume reduction and the proportion of inflow that is infiltrated, treated, and overflowed. Because the model is dynamic, these proportions change from storm to storm (i.e., overflows are less frequent during small storms than large storms). SUSTAIN also simulated first order decay of pollutants per the parameters listed in the Guidelines for Conducting Reasonable Assurance Analysis in a Watershed Management Program, Including an Enhanced Watershed Management Program (Nguyen et al., 2014).

For the subset of BMPs with a treatment component, some assumptions were needed regarding the quality of treated and discharged outflow (e.g., biofiltration BMPs, which have an underdrain). The analysis herein support those assumptions. It is noted that SUSTAIN does not provide a mechanism to apply effluent concentrations, so the median concentration reduction rates reported in [Table 6.D-3](#) were applied to underdrain effluent (acknowledging the limitations of this metric discussed in Section 0).

Detailed Results

A detailed summary of BMP influent and effluent statistics for all 23 analyzed constituents, as well as detailed performance metrics for all BMP categories can be found in the *Summary of Existing and Potential Control Measures for the Ballona Creek Watershed* (Black & Veatch Team 2013).

References

Black & Veatch Team (December 2014). Technical Memorandum: RAA Memo #3: Initial Scenario of BMP Capacities for Each Jurisdiction to Achieve Final Wet Weather Permit Limitations. Submitted to Ballona Creek EWMP Group.

Black & Veatch Team (December 2013). Technical Memorandum: Summary of Existing and Potential Control Measures for the Ballona Creek Watershed. Submitted to Ballona Creek Watershed Management Group.

Los Angeles River Upper Reach 2 Watershed Management Area Cities (City of Bell, City of Bell Gardens, City of Cudahy, City of Maywood, Los Angeles Flood Control District). 2014. Los Angeles River Upper Reach 2 Watershed Management Area Watershed Management Program (WMP) Plan DRAFT. Prepared for the Los Angeles Gateway Region Integrated Regional Water Management Authority.

DRAFT

Appendix 6.E

Green Streets Results Synthesis and List of Opportunities

DRAFT

This appendix discusses the RAA results relevant to green infrastructure (specifically green streets), which comprises a substantial portion of the prescribed control measure capacity and cost in the EWMP.

Table 6.E-13 tabulates the average green street retrofit rates per jurisdiction that are prescribed by the EWMP, as informed by the RAA.

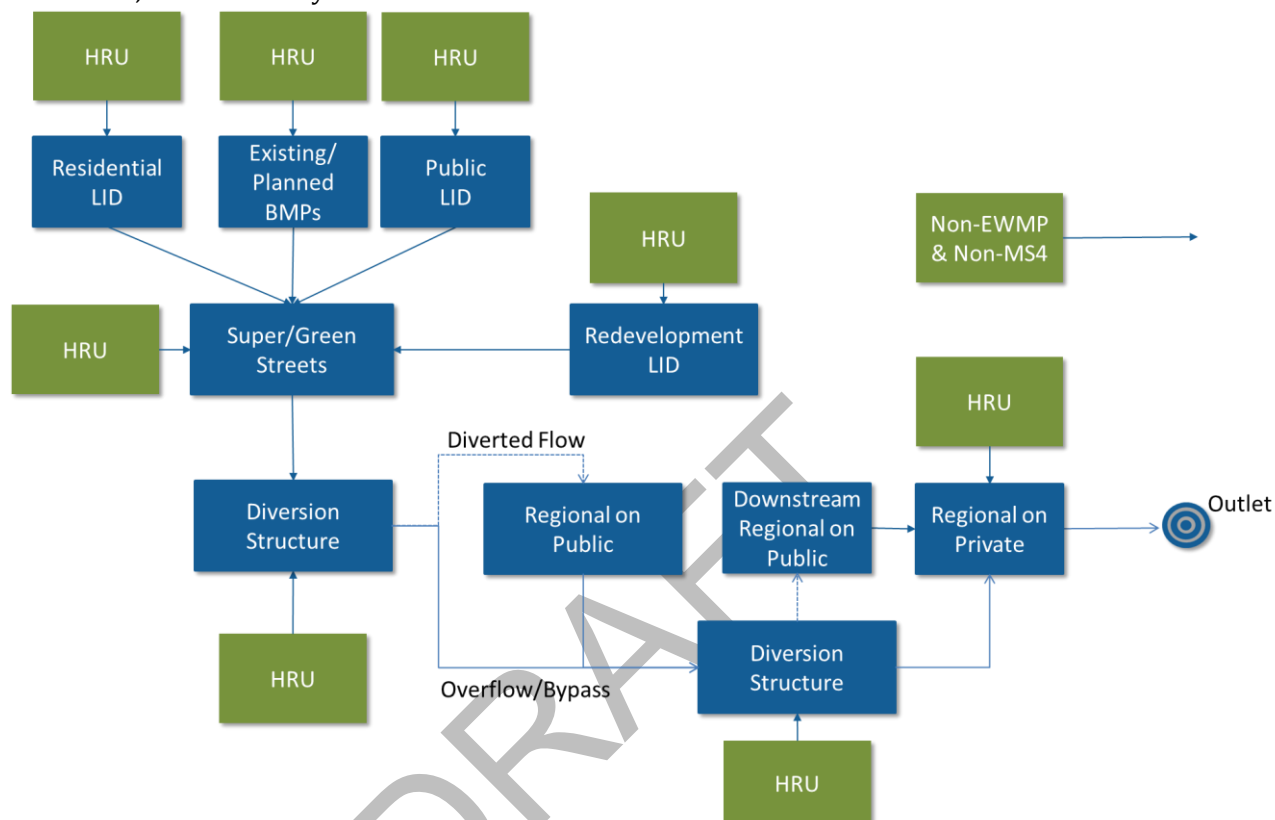


Figure 6D-7 and Figure 6.E-9 provide further resolution by showing the spatial distribution of retrofit rates (e.g. green street density relative to the available opportunities).

Table 6.E-13. Green Street Retrofit Rates by Jurisdiction

Jurisdiction	Total Acre-Feet of Green Street BMPs (% of volume opportunity utilized)	Approximate Miles of Green Street BMPs (% of suitable frontage retrofitted) ¹⁸
Beverly Hills	39.1 (42%)	63 (29%)
City of Los Angeles	277.8 (16%)	417 (15%)
Culver City	19.5 (26%)	31 (21%)
Inglewood	7.3 (17%)	12 (12%)
Santa Monica	1.7 (40%)	3 (28%)
Unincorporated LA County	7.3 (16%)	12 (12%)
West Hollywood	5.3 (16%)	9 (15%)

¹⁸ Tabulated values are conceptual based on BMP lengths (not retrofitted street lengths) and assume bioretention and permeable pavement lengths are installed in tandem per the assumptions in [Appendix 6.D](#). Note that EWMP compliance is based on the volumes reported in Appendix 7.A, not the conceptual length approximations.

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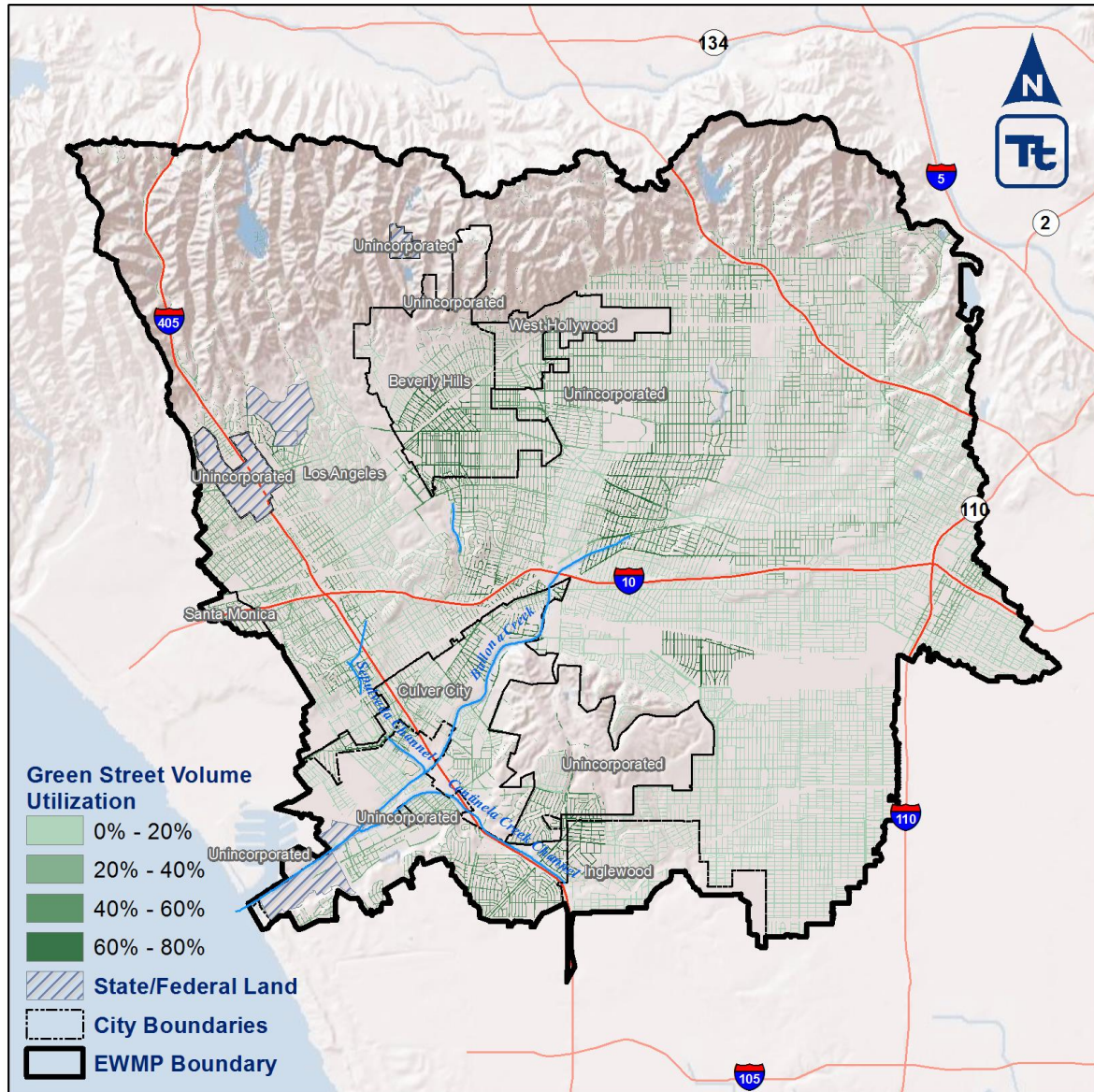


Figure 6.E-9. Model Output Green Street Utilization Per Subwatershed (Overlain on Screened Streets), Relative to Modeled Available Capacities

Table 6.E-14 tabulates the data in

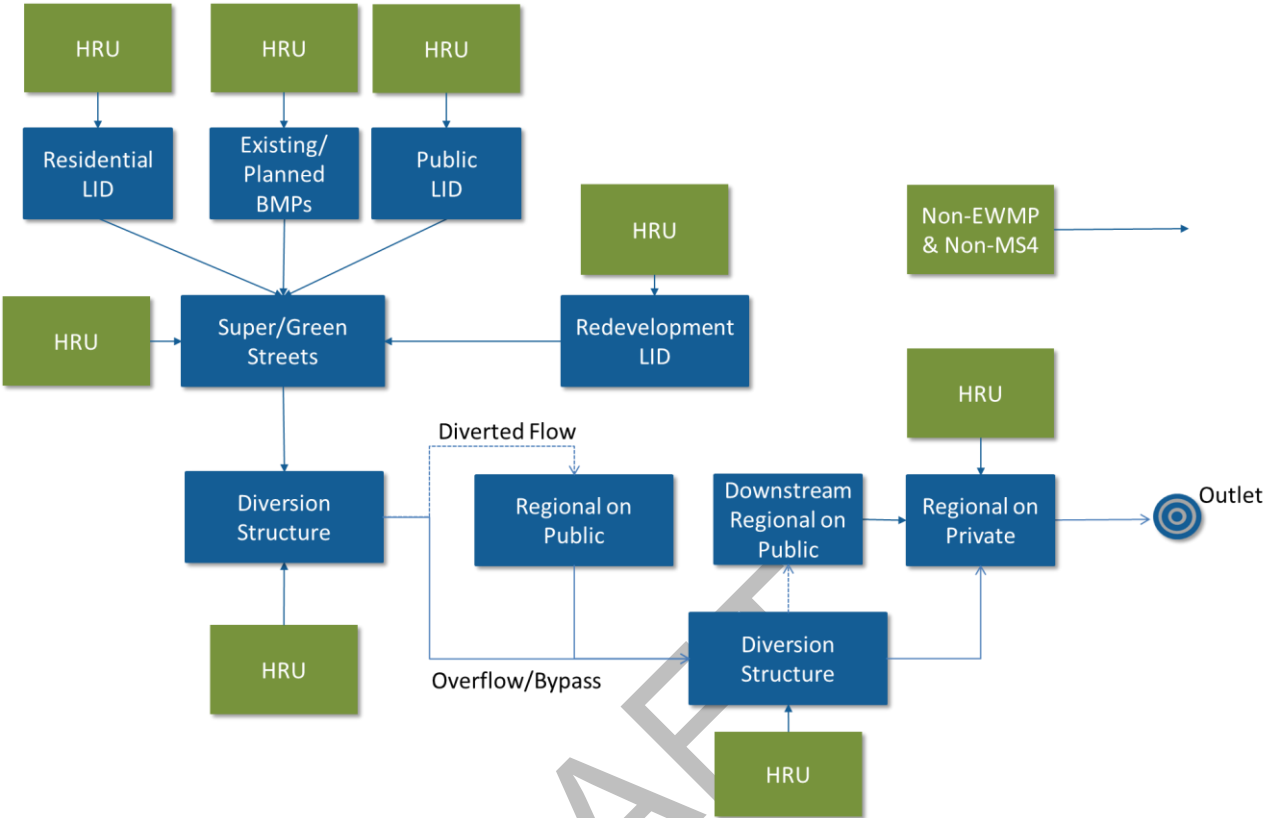


Figure 6D-7, and **Error! Reference source not found.** lists all screened street opportunities that were considered in the RAA.

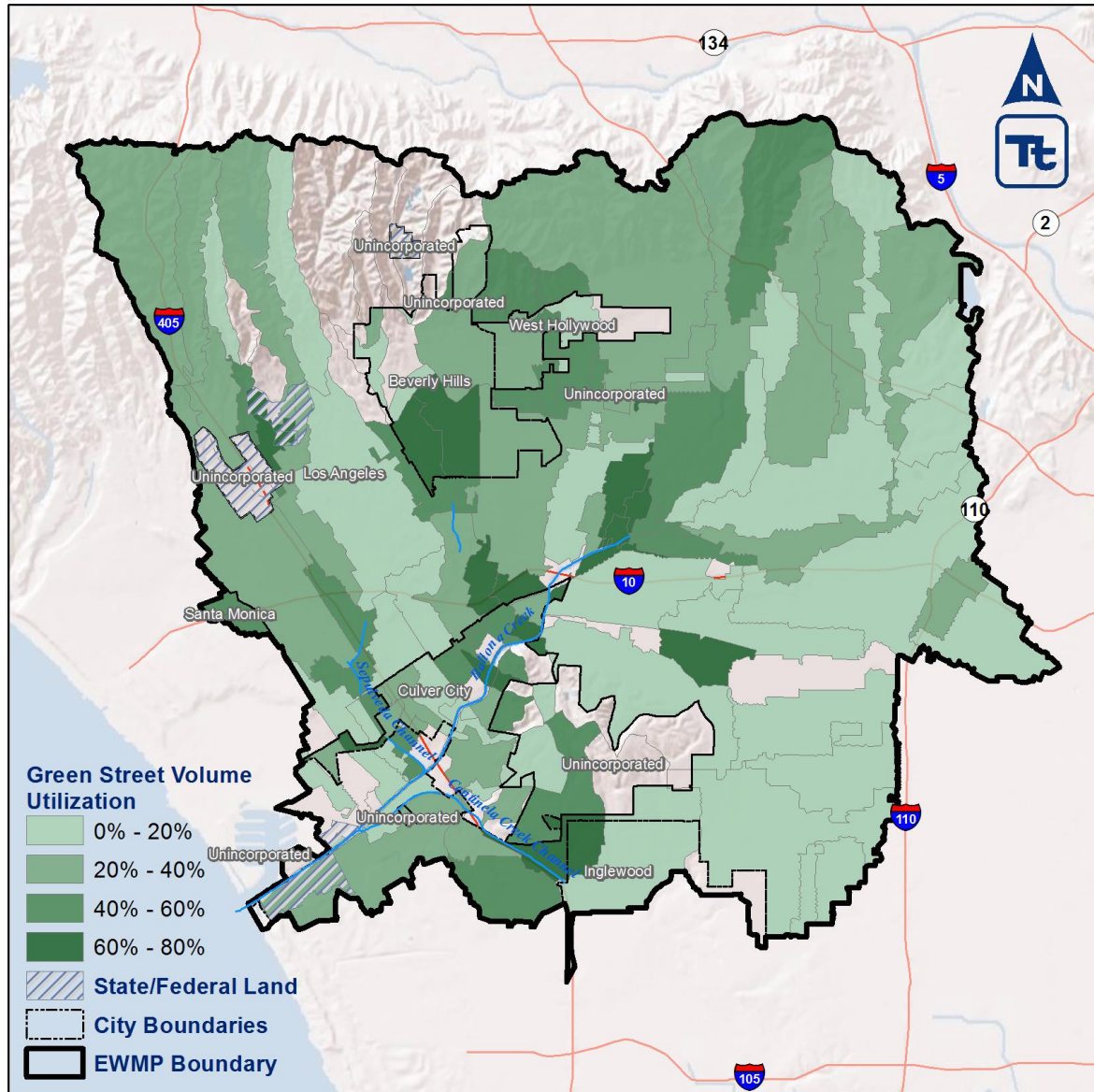


Figure 6.E-41. Model Output Green Street Utilization Per Subwatershed, Relative to Modeled Available Capacities

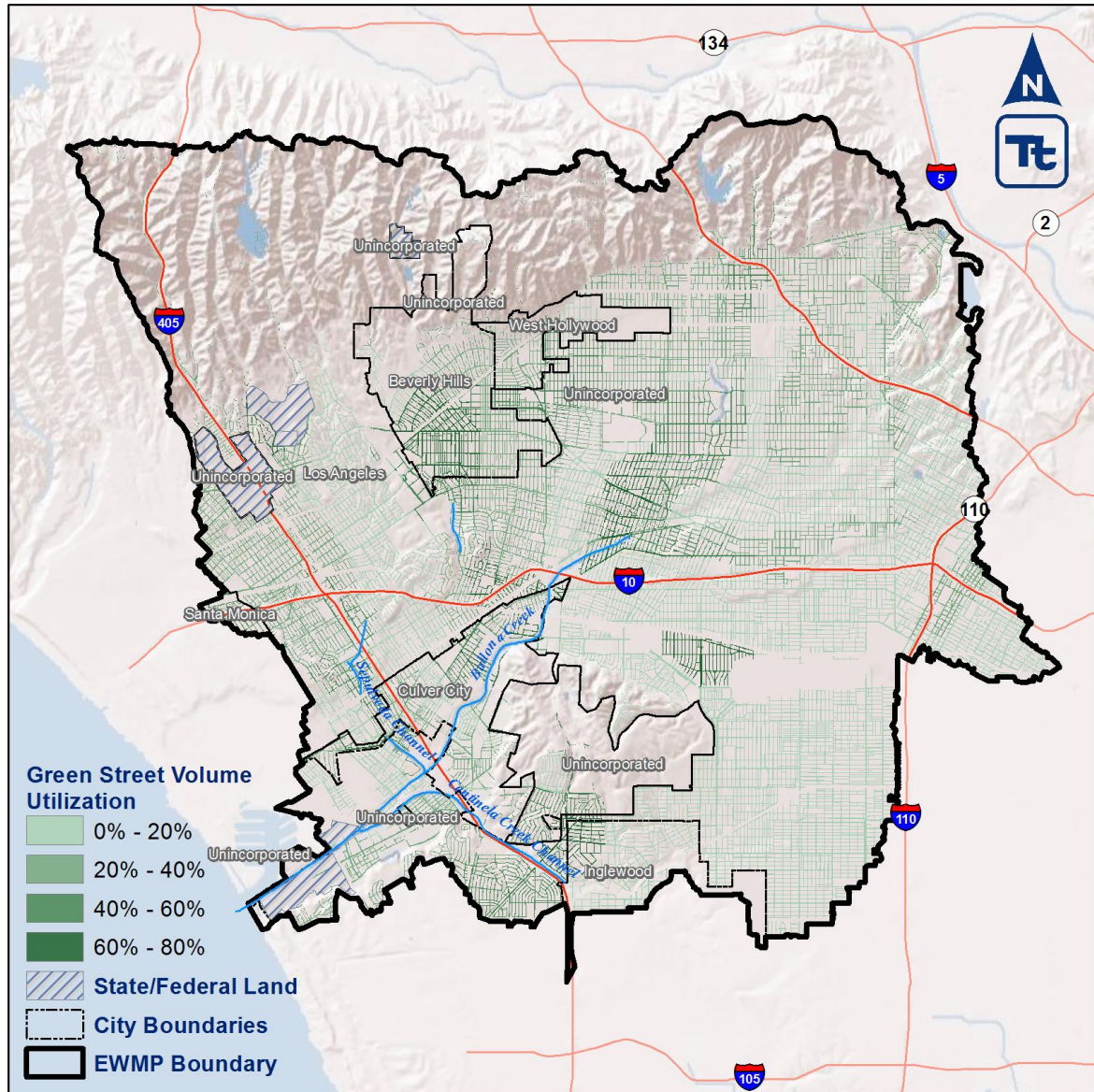


Figure 6.E-9. Model Output Green Street Utilization Per Subwatershed (Overlain on Screened Streets), Relative to Modeled Available Capacities

Table 6.E-14. Green Street Retrofit Rates by Subwatershed, Relative to Modeled Available Capacities

Jurisdiction	Subwatershed	EWMP Green Street Utilization (Percentage of Total Volume Prescribed)
Beverly Hills	111050	68%
Beverly Hills	111051	61%
Beverly Hills	111052	0%
Beverly Hills	111053	19%
Beverly Hills	111054	14%
Beverly Hills	111055	0%
Beverly Hills	111056	32%
Beverly Hills	111057	0%
Beverly Hills	111058	4%
Beverly Hills	111059	0%
Beverly Hills	111060	0%
Beverly Hills	111084	36%
Beverly Hills	111088	53%
Beverly Hills	111090	31%
Beverly Hills	111091	26%
Culver City	221004	61%
Culver City	221007	0%
Culver City	221009	1%
Culver City	221010	0%
Culver City	221011	6%
Culver City	221012	25%
Culver City	221013	66%
Culver City	221014	19%
Culver City	221015	31%
Culver City	221016	0%
Culver City	221017	60%
Culver City	221018	68%
Culver City	221019	5%
Culver City	221020	22%
Culver City	221021	10%
Culver City	221022	44%
Culver City	221023	0%
Culver City	221024	25%
Culver City	221025	1%
Culver City	221026	0%
Culver City	221027	29%
Culver City	221028	0%
Culver City	221031	28%
Culver City	221046	64%
Culver City	221047	0%

Jurisdiction	Subwatershed	EWMP Green Street Utilization (Percentage of Total Volume Prescribed)
Culver City	221048	50%
Culver City	221049	46%
Culver City	221061	71%
Culver City	221062	52%
Culver City	221063	0%
Culver City	221064	37%
Culver City	221065	60%
Culver City	221067	17%
Culver City	221068	0%
Culver City	221069	0%
Culver City	221083	36%
Culver City	221093	0%
Culver City	221175	0%
Inglewood	371028	68%
Inglewood	371029	0%
Inglewood	371030	10%
Inglewood	371080	0%
Los Angeles	491001	0%
Los Angeles	491004	6%
Los Angeles	491005	1%
Los Angeles	491006	0%
Los Angeles	491007	0%
Los Angeles	491008	0%
Los Angeles	491009	0%
Los Angeles	491010	0%
Los Angeles	491012	0%
Los Angeles	491013	19%
Los Angeles	491014	0%
Los Angeles	491018	19%
Los Angeles	491019	0%
Los Angeles	491020	9%
Los Angeles	491021	0%
Los Angeles	491022	14%
Los Angeles	491023	0%
Los Angeles	491024	0%
Los Angeles	491026	31%
Los Angeles	491028	71%
Los Angeles	491029	52%
Los Angeles	491030	3%
Los Angeles	491031	56%
Los Angeles	491032	24%

Jurisdiction	Subwatershed	EWMP Green Street Utilization (Percentage of Total Volume Prescribed)
Los Angeles	491033	40%
Los Angeles	491034	0%
Los Angeles	491035	0%
Los Angeles	491036	31%
Los Angeles	491037	33%
Los Angeles	491038	39%
Los Angeles	491039	39%
Los Angeles	491040	42%
Los Angeles	491041	11%
Los Angeles	491042	0%
Los Angeles	491043	71%
Los Angeles	491044	26%
Los Angeles	491045	0%
Los Angeles	491049	31%
Los Angeles	491050	55%
Los Angeles	491051	56%
Los Angeles	491052	0%
Los Angeles	491053	0%
Los Angeles	491054	0%
Los Angeles	491055	0%
Los Angeles	491056	0%
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Los Angeles	491062	69%
Los Angeles	491063	68%
Los Angeles	491064	0%
Los Angeles	491066	0%
Los Angeles	491067	0%
Los Angeles	491069	67%
Los Angeles	491070	0%
Los Angeles	491071	9%
Los Angeles	491072	0%
Los Angeles	491073	2%
Los Angeles	491074	22%
Los Angeles	491075	9%
Los Angeles	491076	66%
Los Angeles	491077	0%
Los Angeles	491078	0%

Jurisdiction	Subwatershed	EWMP Green Street Utilization (Percentage of Total Volume Prescribed)
Los Angeles	491079	0%
Los Angeles	491080	0%
Los Angeles	491081	11%
Los Angeles	491082	15%
Los Angeles	491083	70%
Los Angeles	491084	39%
Los Angeles	491085	56%
Los Angeles	491086	3%
Los Angeles	491087	62%
Los Angeles	491088	26%
Los Angeles	491089	11%
Los Angeles	491090	50%
Los Angeles	491091	49%
Los Angeles	491092	53%
Los Angeles	491093	0%
Los Angeles	491094	0%
Los Angeles	491095	65%
Los Angeles	491096	34%
Los Angeles	491097	62%
Los Angeles	491098	66%
Los Angeles	491099	47%
Los Angeles	491100	56%
Los Angeles	491101	12%
Los Angeles	491102	57%
Los Angeles	491103	28%
Los Angeles	491104	50%
Los Angeles	491105	38%
Los Angeles	491106	9%
Los Angeles	491107	21%
Los Angeles	491108	24%
Los Angeles	491109	10%
Los Angeles	491110	0%
Los Angeles	491111	0%
Los Angeles	491112	24%
Los Angeles	491113	21%
Los Angeles	491114	18%
Los Angeles	491175	36%
Santa Monica	751018	0%
Santa Monica	751032	40%
Unincorporated	831001	0%
Unincorporated	831003	0%

Jurisdiction	Subwatershed	EWMP Green Street Utilization (Percentage of Total Volume Prescribed)
Unincorporated	831005	0%
Unincorporated	831006	1%
Unincorporated	831014	0%
Unincorporated	831015	59%
Unincorporated	831017	0%
Unincorporated	831023	28%
Unincorporated	831025	4%
Unincorporated	831027	4%
Unincorporated	831028	54%
Unincorporated	831030	0%
Unincorporated	831032	0%
Unincorporated	831036	0%
Unincorporated	831037	0%
Unincorporated	831040	0%
Unincorporated	831043	0%
Unincorporated	831058	0%
Unincorporated	831060	0%
Unincorporated	831067	0%
Unincorporated	831069	1%
Unincorporated	831080	0%
Unincorporated	831081	0%
Unincorporated	831088	0%
Unincorporated	831091	0%
Unincorporated	831175	24%
West Hollywood	871088	0%
West Hollywood	871090	7%
West Hollywood	871091	20%
West Hollywood	871092	45%

Table 6.E-3 Screened Green Street Opportunities Considered in the EWMP

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111050	Beverly Hills	(unknown)	Bioretention (No Underdrain)	50,609
111050	Beverly Hills	Alden Dr	Bioretention (No Underdrain)	686
111050	Beverly Hills	Alpine Dr	Bioretention (No Underdrain)	1,086
111050	Beverly Hills	Beverly Blvd	Bioretention (No Underdrain)	338
111050	Beverly Hills	Beverwil Dr	Bioretention (No Underdrain)	949
111050	Beverly Hills	Brighton Way	Bioretention (No Underdrain)	2,294
111050	Beverly Hills	Burton Way	Bioretention (No Underdrain)	3,077
111050	Beverly Hills	Carmelita Ave	Bioretention (No Underdrain)	1,894
111050	Beverly Hills	Charleville Blvd	Bioretention (No Underdrain)	2,995
111050	Beverly Hills	Civic Center Dr	Bioretention (No Underdrain)	819
111050	Beverly Hills	Clifton Way	Bioretention (No Underdrain)	1,558
111050	Beverly Hills	Commercial Center St	Bioretention (No Underdrain)	169
111050	Beverly Hills	Dayton Way	Bioretention (No Underdrain)	3,205

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111050	Beverly Hills	Edris Dr	Bioretention (No Underdrain)	0
111050	Beverly Hills	el Camino Dr	Bioretention (No Underdrain)	3,643
111050	Beverly Hills	Elevado Ave	Bioretention (No Underdrain)	2,263
111050	Beverly Hills	Foothill Rd	Bioretention (No Underdrain)	2,462
111050	Beverly Hills	Gregory Way	Bioretention (No Underdrain)	2,979
111050	Beverly Hills	N Alpine Dr	Bioretention (No Underdrain)	467
111050	Beverly Hills	N Bedford Dr	Bioretention (No Underdrain)	1,934
111050	Beverly Hills	N Beverly Dr	Bioretention (No Underdrain)	4,565
111050	Beverly Hills	N Camden Dr	Bioretention (No Underdrain)	2,492
111050	Beverly Hills	N Canon Dr	Bioretention (No Underdrain)	4,974
111050	Beverly Hills	N Crescent Dr	Bioretention (No Underdrain)	5,283
111050	Beverly Hills	N Elm Dr	Bioretention (No Underdrain)	1,471
111050	Beverly Hills	N Foothill Rd	Bioretention (No Underdrain)	2,462
111050	Beverly Hills	N Maple Dr	Bioretention (No Underdrain)	6
111050	Beverly Hills	N Rexford Dr	Bioretention (No Underdrain)	3,098
111050	Beverly Hills	N Rodeo Dr	Bioretention (No Underdrain)	3,827
111050	Beverly Hills	N Roxbury Dr	Bioretention (No Underdrain)	3
111050	Beverly Hills	Park Way	Bioretention (No Underdrain)	1,203
111050	Beverly Hills	Peck Dr	Bioretention (No Underdrain)	3,022
111050	Beverly Hills	Reeves Dr	Bioretention (No Underdrain)	2,754
111050	Beverly Hills	S Beverly Dr	Bioretention (No Underdrain)	4,132
111050	Beverly Hills	S Beverwil Dr	Bioretention (No Underdrain)	926
111050	Beverly Hills	S Camden Dr	Bioretention (No Underdrain)	3,671
111050	Beverly Hills	S Canon Dr	Bioretention (No Underdrain)	3,452
111050	Beverly Hills	S Crescent Dr	Bioretention (No Underdrain)	3,633
111050	Beverly Hills	S el Camino Dr	Bioretention (No Underdrain)	3,643
111050	Beverly Hills	S Elm Dr	Bioretention (No Underdrain)	3,624
111050	Beverly Hills	S Peck Dr	Bioretention (No Underdrain)	3,022
111050	Beverly Hills	S Reeves Dr	Bioretention (No Underdrain)	2,754
111050	Beverly Hills	S Rexford Dr	Bioretention (No Underdrain)	3,625
111050	Beverly Hills	S Rodeo Dr	Bioretention (No Underdrain)	3,716
111050	Beverly Hills	Santa Monica Blvd	Bioretention (No Underdrain)	2,971
111050	Beverly Hills	Smithwood Dr	Bioretention (No Underdrain)	568
111050	Beverly Hills	Un-Named St	Bioretention (No Underdrain)	314
111050	Beverly Hills	Via Rodeo Dr	Bioretention (No Underdrain)	310
111050	Beverly Hills	Virginia Pl	Bioretention (No Underdrain)	497
111050	Beverly Hills	W 3rd St	Bioretention (No Underdrain)	1,444
111050	Beverly Hills	W Olympic Blvd	Bioretention (No Underdrain)	2,991
111050	Beverly Hills	Whitworth Dr	Bioretention (No Underdrain)	334
111050	Beverly Hills	Wilshire Blvd	Bioretention (No Underdrain)	3,054
111051	Beverly Hills	(unknown)	Bioretention (No Underdrain)	30,005
111051	Beverly Hills	Beverly Green Dr	Bioretention (No Underdrain)	123
111051	Beverly Hills	Brighton Way	Bioretention (No Underdrain)	124
111051	Beverly Hills	Carmelita Ave	Bioretention (No Underdrain)	2,595
111051	Beverly Hills	Charleville Blvd	Bioretention (No Underdrain)	2,550
111051	Beverly Hills	Daniels Dr	Bioretention (No Underdrain)	185
111051	Beverly Hills	Durant Dr	Bioretention (No Underdrain)	1,356
111051	Beverly Hills	Elevado Ave	Bioretention (No Underdrain)	2,733
111051	Beverly Hills	Gregory Way	Bioretention (No Underdrain)	1,643
111051	Beverly Hills	Heath Ave	Bioretention (No Underdrain)	2,339
111051	Beverly Hills	Hillgreen Dr	Bioretention (No Underdrain)	1,475
111051	Beverly Hills	Hillgreen Pl	Bioretention (No Underdrain)	402
111051	Beverly Hills	Lasky Dr	Bioretention (No Underdrain)	1,779
111051	Beverly Hills	McCarty Dr	Bioretention (No Underdrain)	2,680
111051	Beverly Hills	Moreno Dr	Bioretention (No Underdrain)	1,861

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111051	Beverly Hills	N Bedford Dr	Bioretention (No Underdrain)	1,334
111051	Beverly Hills	N Camden Dr	Bioretention (No Underdrain)	1,165
111051	Beverly Hills	N Linden Dr	Bioretention (No Underdrain)	2,296
111051	Beverly Hills	N Roxbury Dr	Bioretention (No Underdrain)	2,759
111051	Beverly Hills	N Whittier Dr	Bioretention (No Underdrain)	964
111051	Beverly Hills	Peck Dr	Bioretention (No Underdrain)	659
111051	Beverly Hills	Robbins Dr	Bioretention (No Underdrain)	827
111051	Beverly Hills	S Bedford Dr	Bioretention (No Underdrain)	3,625
111051	Beverly Hills	S Lasky Dr	Bioretention (No Underdrain)	1,779
111051	Beverly Hills	S Linden Dr	Bioretention (No Underdrain)	2,683
111051	Beverly Hills	S McCarty Dr	Bioretention (No Underdrain)	2,680
111051	Beverly Hills	S Moreno Dr	Bioretention (No Underdrain)	1,861
111051	Beverly Hills	S Peck Dr	Bioretention (No Underdrain)	598
111051	Beverly Hills	S Roxbury Dr	Bioretention (No Underdrain)	3,627
111051	Beverly Hills	S Spalding Dr	Bioretention (No Underdrain)	4,361
111051	Beverly Hills	Santa Monica Blvd	Bioretention (No Underdrain)	2,631
111051	Beverly Hills	Shirley Pl	Bioretention (No Underdrain)	353
111051	Beverly Hills	Spalding Drive	Bioretention (No Underdrain)	4,361
111051	Beverly Hills	Trenton Dr	Bioretention (No Underdrain)	1,342
111051	Beverly Hills	Virginia Pl	Bioretention (No Underdrain)	217
111051	Beverly Hills	W Olympic Blvd	Bioretention (No Underdrain)	2,817
111051	Beverly Hills	Walden Dr	Bioretention (No Underdrain)	1,738
111051	Beverly Hills	Whittier Dr	Bioretention (No Underdrain)	964
111051	Beverly Hills	Wilshire Blvd	Bioretention (No Underdrain)	3,474
111051	Beverly Hills	Young Dr	Bioretention (No Underdrain)	423
111052	Beverly Hills	Copley Pl	Bioretention (No Underdrain)	350
111053	Beverly Hills	(unknown)	Bioretention (No Underdrain)	11,539
111053	Beverly Hills	Benedict Canon	Bioretention (No Underdrain)	101
111053	Beverly Hills	Benedict Canyon Dr	Bioretention (No Underdrain)	101
111053	Beverly Hills	Elevado Ave	Bioretention (No Underdrain)	261
111053	Beverly Hills	Lomitas Ave	Bioretention (No Underdrain)	4,933
111053	Beverly Hills	N Bedford Dr	Bioretention (No Underdrain)	1,336
111053	Beverly Hills	N Beverly Dr	Bioretention (No Underdrain)	1,288
111053	Beverly Hills	N Camden Dr	Bioretention (No Underdrain)	1,464
111053	Beverly Hills	N Canon Dr	Bioretention (No Underdrain)	1,168
111053	Beverly Hills	N Crescent Dr	Bioretention (No Underdrain)	1,108
111053	Beverly Hills	N Linden Dr	Bioretention (No Underdrain)	1,149
111053	Beverly Hills	N Rexford Dr	Bioretention (No Underdrain)	1,063
111053	Beverly Hills	N Rodeo Dr	Bioretention (No Underdrain)	1,376
111053	Beverly Hills	N Roxbury Dr	Bioretention (No Underdrain)	1,277
111053	Beverly Hills	N Whittier Dr	Bioretention (No Underdrain)	1,001
111053	Beverly Hills	Trenton Dr	Bioretention (No Underdrain)	174
111053	Beverly Hills	Walden Dr	Bioretention (No Underdrain)	1,062
111053	Beverly Hills	Whittier Dr	Bioretention (No Underdrain)	1,001
111054	Beverly Hills	(unknown)	Bioretention (No Underdrain)	3,590
111054	Beverly Hills	Angelo Dr	Bioretention (No Underdrain)	1,272
111054	Beverly Hills	Benedict Canon	Bioretention (No Underdrain)	1,268
111054	Beverly Hills	Benedict Canon Dr	Bioretention (No Underdrain)	285
111054	Beverly Hills	Benedict Canyon Dr	Bioretention (No Underdrain)	1,553
111054	Beverly Hills	Bridle Ln	Bioretention (No Underdrain)	539
111054	Beverly Hills	Chevy Chase Dr	Bioretention (No Underdrain)	1,216
111054	Beverly Hills	Copley Dr	Bioretention (No Underdrain)	79
111054	Beverly Hills	Copley Pl	Bioretention (No Underdrain)	152
111054	Beverly Hills	Cove Way	Bioretention (No Underdrain)	1,258
111054	Beverly Hills	Della Dr	Bioretention (No Underdrain)	72

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111054	Beverly Hills	Green Acres Dr	Bioretention (No Underdrain)	115
111054	Beverly Hills	Greenacres Dr	Bioretention (No Underdrain)	115
111054	Beverly Hills	Greenway Dr	Bioretention (No Underdrain)	1,452
111054	Beverly Hills	Hanover Dr	Bioretention (No Underdrain)	358
111054	Beverly Hills	Hartford Way	Bioretention (No Underdrain)	1,902
111054	Beverly Hills	Ladera Dr	Bioretention (No Underdrain)	74
111054	Beverly Hills	Lexington Rd	Bioretention (No Underdrain)	297
111054	Beverly Hills	N Angelo Dr	Bioretention (No Underdrain)	378
111054	Beverly Hills	N Whittier Dr	Bioretention (No Underdrain)	2,895
111054	Beverly Hills	Pamela Dr	Bioretention (No Underdrain)	328
111054	Beverly Hills	Ridgedale Dr	Bioretention (No Underdrain)	1,039
111054	Beverly Hills	Summit Dr	Bioretention (No Underdrain)	1,069
111054	Beverly Hills	Tower Rd	Bioretention (No Underdrain)	35
111054	Beverly Hills	Walden Dr	Bioretention (No Underdrain)	187
111054	Beverly Hills	Whittier Dr	Bioretention (No Underdrain)	2,895
111055	Beverly Hills	Benedict Canon	Bioretention (No Underdrain)	705
111055	Beverly Hills	Benedict Canon Dr	Bioretention (No Underdrain)	1,181
111055	Beverly Hills	Benedict Canyon Dr	Bioretention (No Underdrain)	476
111055	Beverly Hills	Green Acres Dr	Bioretention (No Underdrain)	312
111055	Beverly Hills	Greenacres Dr	Bioretention (No Underdrain)	312
111055	Beverly Hills	Leona Dr	Bioretention (No Underdrain)	179
111055	Beverly Hills	Tropical Ave	Bioretention (No Underdrain)	259
111056	Beverly Hills	Ambassador Ave	Bioretention (No Underdrain)	528
111056	Beverly Hills	Benedict Canon Dr	Bioretention (No Underdrain)	532
111056	Beverly Hills	Benedict Canyon Dr	Bioretention (No Underdrain)	532
111056	Beverly Hills	N Tower Rd	Bioretention (No Underdrain)	1,085
111056	Beverly Hills	Pickfair Way	Bioretention (No Underdrain)	166
111056	Beverly Hills	San Ysidro Dr	Bioretention (No Underdrain)	1,068
111056	Beverly Hills	Tower Rd	Bioretention (No Underdrain)	1,668
111056	Beverly Hills	Tropical Ave	Bioretention (No Underdrain)	71
111057	Beverly Hills	(unknown)	Bioretention (No Underdrain)	8,483
111057	Beverly Hills	Benedict Canon	Bioretention (No Underdrain)	2,074
111057	Beverly Hills	Benedict Canyon Dr	Bioretention (No Underdrain)	2,074
111057	Beverly Hills	Carolyn Way	Bioretention (No Underdrain)	355
111057	Beverly Hills	Chanruss Pl	Bioretention (No Underdrain)	30
111057	Beverly Hills	Elden Way	Bioretention (No Underdrain)	427
111057	Beverly Hills	Garden Ln	Bioretention (No Underdrain)	175
111057	Beverly Hills	Glen Way	Bioretention (No Underdrain)	884
111057	Beverly Hills	Hartford Way	Bioretention (No Underdrain)	1,649
111057	Beverly Hills	Laurel Ln	Bioretention (No Underdrain)	43
111057	Beverly Hills	Laurel Way	Bioretention (No Underdrain)	1,835
111057	Beverly Hills	Lexington Rd	Bioretention (No Underdrain)	3,613
111057	Beverly Hills	Marilyn Dr	Bioretention (No Underdrain)	323
111057	Beverly Hills	N Bedford Dr	Bioretention (No Underdrain)	1,455
111057	Beverly Hills	N Beverly Dr	Bioretention (No Underdrain)	435
111057	Beverly Hills	N Camden Dr	Bioretention (No Underdrain)	723
111057	Beverly Hills	N Crescent Dr	Bioretention (No Underdrain)	2,617
111057	Beverly Hills	N Linden Dr	Bioretention (No Underdrain)	861
111057	Beverly Hills	N Rexford Dr	Bioretention (No Underdrain)	1,740
111057	Beverly Hills	N Rodeo Dr	Bioretention (No Underdrain)	372
111057	Beverly Hills	N Roxbury Dr	Bioretention (No Underdrain)	2,165
111057	Beverly Hills	N Whittier Dr	Bioretention (No Underdrain)	592
111057	Beverly Hills	Oxford Way	Bioretention (No Underdrain)	568
111057	Beverly Hills	Pine Dr	Bioretention (No Underdrain)	127
111057	Beverly Hills	Shadow Hill Way	Bioretention (No Underdrain)	335

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111057	Beverly Hills	Steven Way	Bioretention (No Underdrain)	29
111057	Beverly Hills	Summit Dr	Bioretention (No Underdrain)	1,122
111057	Beverly Hills	Sunnyvale Way	Bioretention (No Underdrain)	168
111057	Beverly Hills	Walden Dr	Bioretention (No Underdrain)	22
111057	Beverly Hills	Whittier Dr	Bioretention (No Underdrain)	592
111057	Beverly Hills	Woodland Dr	Bioretention (No Underdrain)	463
111058	Beverly Hills	(unknown)	Bioretention (No Underdrain)	53
111058	Beverly Hills	N Beverly Dr	Bioretention (No Underdrain)	154
111058	Beverly Hills	Sutton Way	Bioretention (No Underdrain)	118
111059	Beverly Hills	(unknown)	Bioretention (No Underdrain)	47
111059	Beverly Hills	Carla Ridge	Bioretention (No Underdrain)	855
111059	Beverly Hills	Castle Pl	Bioretention (No Underdrain)	347
111059	Beverly Hills	Chalette Dr	Bioretention (No Underdrain)	52
111059	Beverly Hills	Clinton Pl	Bioretention (No Underdrain)	100
111059	Beverly Hills	Evelyn Pl	Bioretention (No Underdrain)	1,205
111059	Beverly Hills	Haynes Ave	Bioretention (No Underdrain)	9
111059	Beverly Hills	Lago Vista Dr	Bioretention (No Underdrain)	223
111059	Beverly Hills	Lago Vista Pl	Bioretention (No Underdrain)	19
111059	Beverly Hills	Lindacrest Dr	Bioretention (No Underdrain)	160
111059	Beverly Hills	Loma Linda Dr	Bioretention (No Underdrain)	30
111059	Beverly Hills	Loma Vista Dr	Bioretention (No Underdrain)	235
111059	Beverly Hills	Monte Cielo Dr	Bioretention (No Underdrain)	83
111059	Beverly Hills	N Carla Ridge	Bioretention (No Underdrain)	143
111059	Beverly Hills	N Evelyn Pl	Bioretention (No Underdrain)	337
111059	Beverly Hills	W Castle Pl	Bioretention (No Underdrain)	347
111059	Beverly Hills	W Loma Vista Dr	Bioretention (No Underdrain)	235
111084	Beverly Hills	(unknown)	Bioretention (No Underdrain)	51,850
111084	Beverly Hills	Alden Dr	Bioretention (No Underdrain)	936
111084	Beverly Hills	Arnaz Dr	Bioretention (No Underdrain)	0
111084	Beverly Hills	Beverly Blvd	Bioretention (No Underdrain)	868
111084	Beverly Hills	Burton Way	Bioretention (No Underdrain)	3,786
111084	Beverly Hills	Cardiff Ave	Bioretention (No Underdrain)	0
111084	Beverly Hills	Chalmers Dr	Bioretention (No Underdrain)	30
111084	Beverly Hills	Charleville Blvd	Bioretention (No Underdrain)	4,967
111084	Beverly Hills	Clifton Way	Bioretention (No Underdrain)	5,499
111084	Beverly Hills	Commercial Center St	Bioretention (No Underdrain)	200
111084	Beverly Hills	Dayton Way	Bioretention (No Underdrain)	2,687
111084	Beverly Hills	Gregory Way	Bioretention (No Underdrain)	4,889
111084	Beverly Hills	la Peer Dr	Bioretention (No Underdrain)	1,836
111084	Beverly Hills	N Almont Dr	Bioretention (No Underdrain)	1,835
111084	Beverly Hills	N Arnaz Dr	Bioretention (No Underdrain)	1,064
111084	Beverly Hills	N Carson Rd	Bioretention (No Underdrain)	1,354
111084	Beverly Hills	N Clark Dr	Bioretention (No Underdrain)	1,838
111084	Beverly Hills	N Doheny Dr	Bioretention (No Underdrain)	1,830
111084	Beverly Hills	N Gale Dr	Bioretention (No Underdrain)	910
111084	Beverly Hills	N Hamel Dr	Bioretention (No Underdrain)	1,157
111084	Beverly Hills	N Hamilton Dr	Bioretention (No Underdrain)	1,433
111084	Beverly Hills	N la Cienega Blvd	Bioretention (No Underdrain)	1,539
111084	Beverly Hills	N la Peer Dr	Bioretention (No Underdrain)	1,836
111084	Beverly Hills	N Le Doux Rd	Bioretention (No Underdrain)	1,549
111084	Beverly Hills	N Maple Dr	Bioretention (No Underdrain)	3,597
111084	Beverly Hills	N Oakhurst Dr	Bioretention (No Underdrain)	3,646
111084	Beverly Hills	N Palm Dr	Bioretention (No Underdrain)	3,791
111084	Beverly Hills	N Robertson Blvd	Bioretention (No Underdrain)	971
111084	Beverly Hills	N San Vicente Blvd	Bioretention (No Underdrain)	1,727

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111084	Beverly Hills	N Stanley Dr	Bioretention (No Underdrain)	1,449
111084	Beverly Hills	N Swall Dr	Bioretention (No Underdrain)	1,840
111084	Beverly Hills	N Wetherly Dr	Bioretention (No Underdrain)	1,828
111084	Beverly Hills	N Willaman Dr	Bioretention (No Underdrain)	1,257
111084	Beverly Hills	Robertson Blvd	Bioretention (No Underdrain)	1,485
111084	Beverly Hills	S Almont Dr	Bioretention (No Underdrain)	3,623
111084	Beverly Hills	S Arnaz Dr	Bioretention (No Underdrain)	951
111084	Beverly Hills	S Bedford St	Bioretention (No Underdrain)	0
111084	Beverly Hills	S Carson Rd	Bioretention (No Underdrain)	1,104
111084	Beverly Hills	S Clark Dr	Bioretention (No Underdrain)	3,613
111084	Beverly Hills	S Crest Dr	Bioretention (No Underdrain)	0
111084	Beverly Hills	S Doheny Dr	Bioretention (No Underdrain)	3,636
111084	Beverly Hills	S Gale Dr	Bioretention (No Underdrain)	930
111084	Beverly Hills	S Hamel Dr	Bioretention (No Underdrain)	1,301
111084	Beverly Hills	S Hamilton Dr	Bioretention (No Underdrain)	927
111084	Beverly Hills	S la Cienega Blvd	Bioretention (No Underdrain)	1,779
111084	Beverly Hills	S la Peer Dr	Bioretention (No Underdrain)	3,620
111084	Beverly Hills	S Le Doux Rd	Bioretention (No Underdrain)	1,483
111084	Beverly Hills	S Maple Dr	Bioretention (No Underdrain)	3,626
111084	Beverly Hills	S Oakhurst Dr	Bioretention (No Underdrain)	3,627
111084	Beverly Hills	S Orlando Ave	Bioretention (No Underdrain)	21
111084	Beverly Hills	S Palm Dr	Bioretention (No Underdrain)	3,628
111084	Beverly Hills	S Robertson Blvd	Bioretention (No Underdrain)	3,609
111084	Beverly Hills	S Sherbourne Dr	Bioretention (No Underdrain)	0
111084	Beverly Hills	S Stanley Dr	Bioretention (No Underdrain)	1,010
111084	Beverly Hills	S Swall Dr	Bioretention (No Underdrain)	3,615
111084	Beverly Hills	S Tower Dr	Bioretention (No Underdrain)	914
111084	Beverly Hills	S Wetherly Dr	Bioretention (No Underdrain)	3,629
111084	Beverly Hills	S Willaman Dr	Bioretention (No Underdrain)	1,201
111084	Beverly Hills	S Wooster St	Bioretention (No Underdrain)	0
111084	Beverly Hills	San Vicente Blvd	Bioretention (No Underdrain)	1,727
111084	Beverly Hills	Tower Dr	Bioretention (No Underdrain)	914
111084	Beverly Hills	W 3rd St	Bioretention (No Underdrain)	917
111084	Beverly Hills	W 6th St	Bioretention (No Underdrain)	10
111084	Beverly Hills	W Olympic Blvd	Bioretention (No Underdrain)	3,066
111084	Beverly Hills	Whitworth Dr	Bioretention (No Underdrain)	1,272
111084	Beverly Hills	Wilshire Blvd	Bioretention (No Underdrain)	6,572
111088	Beverly Hills	N Walker Dr	Biofiltration (Underdrain)	316
111088	Beverly Hills	Walker Dr	Biofiltration (Underdrain)	316
111091	Beverly Hills	(unknown)	Bioretention (No Underdrain)	41,315
111091	Beverly Hills	Alexis Pl	Bioretention (No Underdrain)	160
111091	Beverly Hills	Alpine Dr	Bioretention (No Underdrain)	5,654
111091	Beverly Hills	Alta Dr	Bioretention (No Underdrain)	3,395
111091	Beverly Hills	Arden Dr	Bioretention (No Underdrain)	3,232
111091	Beverly Hills	Arkell Dr	Bioretention (No Underdrain)	156
111091	Beverly Hills	Barrie Dr	Bioretention (No Underdrain)	301
111091	Beverly Hills	Beverly Blvd	Bioretention (No Underdrain)	386
111091	Beverly Hills	Burk Pl	Bioretention (No Underdrain)	86
111091	Beverly Hills	Calle Vista Dr	Bioretention (No Underdrain)	162
111091	Beverly Hills	Carla Ln	Bioretention (No Underdrain)	269
111091	Beverly Hills	Carla Ridge	Bioretention (No Underdrain)	1,299
111091	Beverly Hills	Carmelita Ave	Bioretention (No Underdrain)	4,632
111091	Beverly Hills	Carol Dr	Bioretention (No Underdrain)	6
111091	Beverly Hills	Chalette Dr	Bioretention (No Underdrain)	500
111091	Beverly Hills	Civic Center Dr	Bioretention (No Underdrain)	3,446

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
111091	Beverly Hills	Clinton Pl	Bioretention (No Underdrain)	93
111091	Beverly Hills	Cord Cir	Bioretention (No Underdrain)	236
111091	Beverly Hills	Cory Ave	Bioretention (No Underdrain)	15
111091	Beverly Hills	Cynthia St	Bioretention (No Underdrain)	1,109
111091	Beverly Hills	Dabney Ln	Bioretention (No Underdrain)	100
111091	Beverly Hills	Doheny Rd	Bioretention (No Underdrain)	3,009
111091	Beverly Hills	Drury Ln	Bioretention (No Underdrain)	306
111091	Beverly Hills	el Retiro Way	Bioretention (No Underdrain)	92
111091	Beverly Hills	Elevado Ave	Bioretention (No Underdrain)	5,363
111091	Beverly Hills	Endrino Pl	Bioretention (No Underdrain)	87
111091	Beverly Hills	Foothill Rd	Bioretention (No Underdrain)	5,328
111091	Beverly Hills	Haynes Ave	Bioretention (No Underdrain)	36
111091	Beverly Hills	Hillcrest Rd	Bioretention (No Underdrain)	1,263
111091	Beverly Hills	la Altura Rd	Bioretention (No Underdrain)	16
111091	Beverly Hills	la Collina Dr	Bioretention (No Underdrain)	12
111091	Beverly Hills	Leslie Ln	Bioretention (No Underdrain)	182
111091	Beverly Hills	Lexington Rd	Bioretention (No Underdrain)	383
111091	Beverly Hills	Loma Vista Dr	Bioretention (No Underdrain)	2,966
111091	Beverly Hills	Lomitas Ave	Bioretention (No Underdrain)	2,182
111091	Beverly Hills	Martin Ln	Bioretention (No Underdrain)	270
111091	Beverly Hills	Maytor Pl	Bioretention (No Underdrain)	140
111091	Beverly Hills	Monte Leon Dr	Bioretention (No Underdrain)	664
111091	Beverly Hills	Monte Leon Ln	Bioretention (No Underdrain)	697
111091	Beverly Hills	Mountain Dr	Bioretention (No Underdrain)	1,483
111091	Beverly Hills	N Alexis Pl	Bioretention (No Underdrain)	160
111091	Beverly Hills	N Alpine Dr	Bioretention (No Underdrain)	5,518
111091	Beverly Hills	N Alta Dr	Bioretention (No Underdrain)	3,395
111091	Beverly Hills	N Arden Dr	Bioretention (No Underdrain)	3,232
111091	Beverly Hills	N Elm Dr	Bioretention (No Underdrain)	4,223
111091	Beverly Hills	N Foothill Rd	Bioretention (No Underdrain)	5,328
111091	Beverly Hills	N Hillcrest Rd	Bioretention (No Underdrain)	5,449
111091	Beverly Hills	N la Collina Dr	Bioretention (No Underdrain)	12
111091	Beverly Hills	N Maple Dr	Bioretention (No Underdrain)	3,421
111091	Beverly Hills	N Oakhurst Dr	Bioretention (No Underdrain)	3,556
111091	Beverly Hills	N Palm Dr	Bioretention (No Underdrain)	4,032
111091	Beverly Hills	N Rexford Dr	Bioretention (No Underdrain)	2,839
111091	Beverly Hills	N Sierra Alta Way	Bioretention (No Underdrain)	12
111091	Beverly Hills	N Sierra Dr	Bioretention (No Underdrain)	3,311
111091	Beverly Hills	N Sierra Pl	Bioretention (No Underdrain)	140
111091	Beverly Hills	Phyllis St	Bioretention (No Underdrain)	532
111091	Beverly Hills	Robert Ln	Bioretention (No Underdrain)	780
111091	Beverly Hills	Schuyler Rd	Bioretention (No Underdrain)	945
111091	Beverly Hills	Sierra Alta Way	Bioretention (No Underdrain)	12
111091	Beverly Hills	Sierra Dr	Bioretention (No Underdrain)	3,311
111091	Beverly Hills	Trousdale Pl	Bioretention (No Underdrain)	172
111091	Beverly Hills	Vick Pl	Bioretention (No Underdrain)	3
111091	Beverly Hills	W Doheny Rd	Bioretention (No Underdrain)	353
111091	Beverly Hills	W Loma Vista Dr	Bioretention (No Underdrain)	855
111091	Beverly Hills	W Wallace Rdg	Bioretention (No Underdrain)	69
111091	Beverly Hills	Wallace Ridge	Bioretention (No Underdrain)	180
111091	Beverly Hills	Williams Ln	Bioretention (No Underdrain)	41
221004	Culver City	W Washington Blvd	Bioretention (No Underdrain)	815
221004	Culver City	Washington Blvd	Bioretention (No Underdrain)	815
221007	Culver City	(unknown)	Bioretention (No Underdrain)	39
221007	Culver City	Ocean Dr	Bioretention (No Underdrain)	227

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221007	Culver City	Overland Ave	Bioretention (No Underdrain)	78
221007	Culver City	Sepulveda Blvd	Bioretention (No Underdrain)	39
221007	Culver City	Westwood Blvd	Bioretention (No Underdrain)	9
221009	Culver City	Cota St	Bioretention (No Underdrain)	56
221009	Culver City	Dobson Way	Bioretention (No Underdrain)	329
221009	Culver City	Fairbanks Way	Bioretention (No Underdrain)	484
221009	Culver City	Karen Cir	Bioretention (No Underdrain)	192
221009	Culver City	Pickford Way	Bioretention (No Underdrain)	348
221009	Culver City	Rhoda Way	Bioretention (No Underdrain)	436
221009	Culver City	Stevens Cir	Bioretention (No Underdrain)	189
221009	Culver City	Westwood Blvd	Bioretention (No Underdrain)	593
221010	Culver City	(unknown)	Bioretention (No Underdrain)	20
221010	Culver City	Argan Ave	Bioretention (No Underdrain)	0
221010	Culver City	Braddock Dr	Bioretention (No Underdrain)	227
221010	Culver City	Franklin Ave	Bioretention (No Underdrain)	785
221010	Culver City	Garfield Ave	Bioretention (No Underdrain)	464
221010	Culver City	Huntley Ave	Bioretention (No Underdrain)	1,001
221010	Culver City	Huntley Pl	Bioretention (No Underdrain)	423
221010	Culver City	W Tavener Ave	Bioretention (No Underdrain)	0
221011	Culver City	(unknown)	Bioretention (No Underdrain)	1,241
221011	Culver City	Fairbanks Way	Bioretention (No Underdrain)	1,014
221011	Culver City	Ocean Dr	Bioretention (No Underdrain)	659
221011	Culver City	Pickford Way	Bioretention (No Underdrain)	1,110
221011	Culver City	Rhoda Way	Bioretention (No Underdrain)	438
221011	Culver City	Studio Dr	Bioretention (No Underdrain)	888
221011	Culver City	Virginia Ave	Bioretention (No Underdrain)	1,052
221011	Culver City	Westwood Blvd	Bioretention (No Underdrain)	797
221012	Culver City	(unknown)	Bioretention (No Underdrain)	3,397
221012	Culver City	Boise Ave	Bioretention (No Underdrain)	610
221012	Culver City	Chase Ave	Bioretention (No Underdrain)	150
221012	Culver City	Colonial Ave	Bioretention (No Underdrain)	919
221012	Culver City	Frances Ave	Bioretention (No Underdrain)	50
221012	Culver City	Kehyon Ave	Bioretention (No Underdrain)	150
221012	Culver City	Louise Ave	Bioretention (No Underdrain)	629
221012	Culver City	Maxella Ave	Bioretention (No Underdrain)	275
221012	Culver City	McConnell Ave	Bioretention (No Underdrain)	2,927
221012	Culver City	McConnell Blvd	Bioretention (No Underdrain)	2,927
221012	Culver City	Meier St	Bioretention (No Underdrain)	607
221012	Culver City	Mildred Ave	Bioretention (No Underdrain)	2,052
221012	Culver City	Moore St	Bioretention (No Underdrain)	145
221012	Culver City	Neosho Ave	Bioretention (No Underdrain)	185
221012	Culver City	Rosabell St	Bioretention (No Underdrain)	839
221012	Culver City	W Washington Blvd	Bioretention (No Underdrain)	2,874
221012	Culver City	Wade St	Bioretention (No Underdrain)	1,204
221012	Culver City	Wasatch Ave	Bioretention (No Underdrain)	830
221012	Culver City	Washington Blvd	Bioretention (No Underdrain)	2,874
221012	Culver City	Washington Pl	Bioretention (No Underdrain)	1,930
221012	Culver City	Zanja St	Bioretention (No Underdrain)	154
221013	Culver City	(unknown)	Bioretention (No Underdrain)	159
221013	Culver City	Atlantic Ave	Bioretention (No Underdrain)	709
221013	Culver City	East Blvd	Bioretention (No Underdrain)	376
221013	Culver City	Inglewood Blvd	Bioretention (No Underdrain)	504
221013	Culver City	Kensington Rd	Bioretention (No Underdrain)	106
221013	Culver City	Louise Ave	Bioretention (No Underdrain)	192
221013	Culver City	Marcasel Ave	Bioretention (No Underdrain)	310

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221013	Culver City	W Washington Blvd	Bioretention (No Underdrain)	1,758
221013	Culver City	Washington Blvd	Bioretention (No Underdrain)	1,758
221014	Culver City	(unknown)	Bioretention (No Underdrain)	1,280
221014	Culver City	Clarmon Pl	Bioretention (No Underdrain)	469
221014	Culver City	Cota St	Bioretention (No Underdrain)	479
221014	Culver City	Deshire Pl	Bioretention (No Underdrain)	521
221014	Culver City	Drakewood Ave	Bioretention (No Underdrain)	186
221014	Culver City	Fairbanks Way	Bioretention (No Underdrain)	590
221014	Culver City	Flaxton Ave	Bioretention (No Underdrain)	143
221014	Culver City	Flaxton St	Bioretention (No Underdrain)	1,752
221014	Culver City	Galvin St	Bioretention (No Underdrain)	583
221014	Culver City	Hazelton Ave	Bioretention (No Underdrain)	847
221014	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	887
221014	Culver City	Kingston Ave	Bioretention (No Underdrain)	1,752
221014	Culver City	Kinston	Bioretention (No Underdrain)	248
221014	Culver City	Kinston Ave	Bioretention (No Underdrain)	2,349
221014	Culver City	Northgate St	Bioretention (No Underdrain)	196
221014	Culver City	Ocean Dr	Bioretention (No Underdrain)	1,532
221014	Culver City	Overland Ave	Bioretention (No Underdrain)	590
221014	Culver City	Pickford Way	Bioretention (No Underdrain)	745
221014	Culver City	Rhoda Way	Bioretention (No Underdrain)	1,095
221014	Culver City	Westwood Blvd	Bioretention (No Underdrain)	1,139
221014	Culver City	Whitburn St	Bioretention (No Underdrain)	1,372
221014	Culver City	Youngworth Rd	Bioretention (No Underdrain)	52
221015	Culver City	(unknown)	Bioretention (No Underdrain)	4,590
221015	Culver City	Clarmon Pl	Bioretention (No Underdrain)	123
221015	Culver City	Deshire Pl	Bioretention (No Underdrain)	94
221015	Culver City	Galvin St	Bioretention (No Underdrain)	863
221015	Culver City	Hollow Corner Rd	Bioretention (No Underdrain)	27
221015	Culver City	Indian Wood Rd	Bioretention (No Underdrain)	23
221015	Culver City	Indianwood Rd	Bioretention (No Underdrain)	23
221015	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	2,661
221015	Culver City	Jordan Way	Bioretention (No Underdrain)	689
221015	Culver City	Marietta Ln	Bioretention (No Underdrain)	48
221015	Culver City	Northgate St	Bioretention (No Underdrain)	816
221015	Culver City	Ocean Dr	Bioretention (No Underdrain)	74
221015	Culver City	Overland Ave	Bioretention (No Underdrain)	2,954
221015	Culver City	Raintree Cir	Bioretention (No Underdrain)	28
221015	Culver City	Saratoga Ln	Bioretention (No Underdrain)	29
221015	Culver City	Virginia Ave	Bioretention (No Underdrain)	815
221016	Culver City	(unknown)	Bioretention (No Underdrain)	324
221016	Culver City	Farragut Dr	Bioretention (No Underdrain)	1,088
221016	Culver City	Jasmine Ave	Bioretention (No Underdrain)	2,739
221016	Culver City	Keystone Ave	Bioretention (No Underdrain)	1,720
221016	Culver City	Le Bourget Ave	Bioretention (No Underdrain)	1,540
221016	Culver City	Mentone Ave	Bioretention (No Underdrain)	1,230
221016	Culver City	Motor Ave	Bioretention (No Underdrain)	1,173
221016	Culver City	Overland Ave	Bioretention (No Underdrain)	108
221016	Culver City	Vinton Ave	Bioretention (No Underdrain)	1,624
221017	Culver City	(unknown)	Bioretention (No Underdrain)	363
221017	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	1,605
221017	Culver City	Leahy St	Bioretention (No Underdrain)	55
221017	Culver City	Pearson St	Bioretention (No Underdrain)	71
221018	Culver City	(unknown)	Bioretention (No Underdrain)	874
221018	Culver City	Campbell Dr	Bioretention (No Underdrain)	180

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221018	Culver City	Grand View Blvd	Bioretention (No Underdrain)	1,900
221018	Culver City	Herbert St	Bioretention (No Underdrain)	871
221018	Culver City	Herbert Way	Bioretention (No Underdrain)	152
221018	Culver City	Inglewood Blvd	Bioretention (No Underdrain)	61
221018	Culver City	Lindblade Dr	Bioretention (No Underdrain)	192
221018	Culver City	S Centinela Ave	Bioretention (No Underdrain)	1,324
221018	Culver City	W Washington Blvd	Bioretention (No Underdrain)	1,824
221018	Culver City	Washington Blvd	Bioretention (No Underdrain)	1,824
221018	Culver City	Washington Pl	Bioretention (No Underdrain)	1,010
221019	Culver City	(unknown)	Bioretention (No Underdrain)	7,821
221019	Culver City	Aletta Ave	Bioretention (No Underdrain)	1,368
221019	Culver City	Alley North of Washington Blvd	Bioretention (No Underdrain)	124
221019	Culver City	Alley South of Washington	Bioretention (No Underdrain)	892
221019	Culver City	Alley Way South of Washington Blvd	Bioretention (No Underdrain)	635
221019	Culver City	Arizona Ave	Bioretention (No Underdrain)	784
221019	Culver City	Astaire Ave	Bioretention (No Underdrain)	636
221019	Culver City	Barman Ave	Bioretention (No Underdrain)	2,698
221019	Culver City	Braddock Dr	Bioretention (No Underdrain)	2,605
221019	Culver City	Charles Ave	Bioretention (No Underdrain)	778
221019	Culver City	Coogan Cir	Bioretention (No Underdrain)	371
221019	Culver City	Coombs Ave	Bioretention (No Underdrain)	1,982
221019	Culver City	Culver Blvd	Bioretention (No Underdrain)	3,891
221019	Culver City	Culver Center	Bioretention (No Underdrain)	59
221019	Culver City	Culver Center St	Bioretention (No Underdrain)	59
221019	Culver City	Elenda St	Bioretention (No Underdrain)	3,530
221019	Culver City	Farragut Dr	Bioretention (No Underdrain)	1,113
221019	Culver City	Franklin Ave	Bioretention (No Underdrain)	1,155
221019	Culver City	Garfield Ave	Bioretention (No Underdrain)	1,220
221019	Culver City	Garland Dr	Bioretention (No Underdrain)	1,322
221019	Culver City	Girard Ave	Bioretention (No Underdrain)	977
221019	Culver City	Harter Ave	Bioretention (No Underdrain)	2,403
221019	Culver City	Hepburn Cir	Bioretention (No Underdrain)	269
221019	Culver City	Huron Ave	Bioretention (No Underdrain)	2,459
221019	Culver City	Lamarr Ave	Bioretention (No Underdrain)	1,035
221019	Culver City	Lindblade St	Bioretention (No Underdrain)	2,125
221019	Culver City	Marietta Ave	Bioretention (No Underdrain)	839
221019	Culver City	Matteson Ave	Bioretention (No Underdrain)	74
221019	Culver City	Midway Ave	Bioretention (No Underdrain)	2,216
221019	Culver City	Milton Ave	Bioretention (No Underdrain)	514
221019	Culver City	Oregon Ave	Bioretention (No Underdrain)	1,532
221019	Culver City	Skelton Cir	Bioretention (No Underdrain)	347
221019	Culver City	Spad Pl	Bioretention (No Underdrain)	907
221019	Culver City	Tilden Ave	Bioretention (No Underdrain)	1,134
221019	Culver City	W Washington Blvd	Bioretention (No Underdrain)	1,629
221019	Culver City	Wagner St	Bioretention (No Underdrain)	2,162
221019	Culver City	Washington Blvd	Bioretention (No Underdrain)	1,629
221019	Culver City	Westwood Blvd	Bioretention (No Underdrain)	854
221020	Culver City	(unknown)	Bioretention (No Underdrain)	7,779
221020	Culver City	Albright Ave	Bioretention (No Underdrain)	107
221020	Culver City	Alley Way South of Washington Blvd	Bioretention (No Underdrain)	115
221020	Culver City	Barman Ave	Bioretention (No Underdrain)	962
221020	Culver City	Bentley Ave	Bioretention (No Underdrain)	1,631
221020	Culver City	Bledsoe Ave	Bioretention (No Underdrain)	9
221020	Culver City	Braddock Dr	Bioretention (No Underdrain)	947
221020	Culver City	Center St	Bioretention (No Underdrain)	1,122

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221020	Culver City	College Ave	Bioretention (No Underdrain)	641
221020	Culver City	Commonwealth Ave	Bioretention (No Underdrain)	1,499
221020	Culver City	Commonwealth Cir	Bioretention (No Underdrain)	68
221020	Culver City	Corinth Ave	Bioretention (No Underdrain)	155
221020	Culver City	Culver Blvd	Bioretention (No Underdrain)	2,577
221020	Culver City	Farragut Dr	Bioretention (No Underdrain)	354
221020	Culver City	Franklin Ave	Bioretention (No Underdrain)	389
221020	Culver City	Garfield Ave	Bioretention (No Underdrain)	420
221020	Culver City	Globe Ave	Bioretention (No Underdrain)	535
221020	Culver City	Harter Ave	Bioretention (No Underdrain)	1,016
221020	Culver City	Huntley Ave	Bioretention (No Underdrain)	503
221020	Culver City	Huron Ave	Bioretention (No Underdrain)	1,495
221020	Culver City	Lindblade St	Bioretention (No Underdrain)	955
221020	Culver City	Matteson Ave	Bioretention (No Underdrain)	2,352
221020	Culver City	Piggott Dr	Bioretention (No Underdrain)	498
221020	Culver City	Pigott Dr	Bioretention (No Underdrain)	498
221020	Culver City	Prospect Ave	Bioretention (No Underdrain)	1,263
221020	Culver City	Sawtelle Blvd	Bioretention (No Underdrain)	958
221020	Culver City	Sepulveda Blvd	Bioretention (No Underdrain)	5,378
221020	Culver City	Star Cir	Bioretention (No Underdrain)	69
221020	Culver City	Tilden Ave	Bioretention (No Underdrain)	1,693
221020	Culver City	Tuller Ave	Bioretention (No Underdrain)	1,560
221020	Culver City	W Washington Blvd	Bioretention (No Underdrain)	3,057
221020	Culver City	Wagner St	Bioretention (No Underdrain)	969
221020	Culver City	Washington Blvd	Bioretention (No Underdrain)	3,057
221020	Culver City	Washington Pl	Bioretention (No Underdrain)	1,955
221021	Culver City	(unknown)	Bioretention (No Underdrain)	115
221021	Culver City	Braddock Dr	Bioretention (No Underdrain)	27
221021	Culver City	Coombs Ave	Bioretention (No Underdrain)	22
221021	Culver City	Emerald Way	Bioretention (No Underdrain)	91
221021	Culver City	Farragut Dr	Bioretention (No Underdrain)	43
221021	Culver City	Huron Ave	Bioretention (No Underdrain)	149
221021	Culver City	Overland Ave	Bioretention (No Underdrain)	908
221022	Culver City	(unknown)	Bioretention (No Underdrain)	3,113
221022	Culver City	Alley South of Culver	Bioretention (No Underdrain)	305
221022	Culver City	Alley Way South of Washington Blvd	Bioretention (No Underdrain)	59
221022	Culver City	Barman Ave	Bioretention (No Underdrain)	156
221022	Culver City	Braddock Dr	Bioretention (No Underdrain)	2,389
221022	Culver City	Culver Blvd	Bioretention (No Underdrain)	2,221
221022	Culver City	Farragut Dr	Bioretention (No Underdrain)	809
221022	Culver City	Franklin Ave	Bioretention (No Underdrain)	155
221022	Culver City	Garfield Ave	Bioretention (No Underdrain)	148
221022	Culver City	Goldwyn Ter	Bioretention (No Underdrain)	30
221022	Culver City	Jasmine Ave	Bioretention (No Underdrain)	1,992
221022	Culver City	Jean Pl	Bioretention (No Underdrain)	46
221022	Culver City	Keystone Ave	Bioretention (No Underdrain)	1,709
221022	Culver City	Le Bourget Ave	Bioretention (No Underdrain)	1,896
221022	Culver City	Mentone Ave	Bioretention (No Underdrain)	1,828
221022	Culver City	Motor Ave	Bioretention (No Underdrain)	1,972
221022	Culver City	Oregon Ave	Bioretention (No Underdrain)	179
221022	Culver City	Overland Ave	Bioretention (No Underdrain)	3,326
221022	Culver City	Palm Court Way	Bioretention (No Underdrain)	50
221022	Culver City	Park Ave	Bioretention (No Underdrain)	299
221022	Culver City	Vinton Ave	Bioretention (No Underdrain)	1,979
221022	Culver City	W Washington Blvd	Bioretention (No Underdrain)	2,334

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221022	Culver City	Washington Blvd	Bioretention (No Underdrain)	2,334
221023	Culver City	Berryman Ave	Bioretention (No Underdrain)	535
221023	Culver City	Dawes Ave	Bioretention (No Underdrain)	502
221023	Culver City	Emporia Ave	Bioretention (No Underdrain)	1,329
221023	Culver City	Emporia Pl	Bioretention (No Underdrain)	11
221023	Culver City	Etheldo Ave	Bioretention (No Underdrain)	480
221023	Culver City	Hammack St	Bioretention (No Underdrain)	221
221023	Culver City	McDonald St	Bioretention (No Underdrain)	1,794
221023	Culver City	Orville St	Bioretention (No Underdrain)	689
221023	Culver City	Port Rd	Bioretention (No Underdrain)	844
221023	Culver City	Purdue Ave	Bioretention (No Underdrain)	854
221023	Culver City	S Slauson Ave	Bioretention (No Underdrain)	1,185
221023	Culver City	Selmaraine Dr	Bioretention (No Underdrain)	1,576
221023	Culver City	Slauson Ave	Bioretention (No Underdrain)	1,185
221023	Culver City	Woolford St	Bioretention (No Underdrain)	687
221024	Culver City	(unknown)	Bioretention (No Underdrain)	7,664
221024	Culver City	Alley East of Sepulveda	Bioretention (No Underdrain)	998
221024	Culver City	Alley North of Jefferson	Bioretention (No Underdrain)	1,599
221024	Culver City	Ballona Ln	Bioretention (No Underdrain)	57
221024	Culver City	Bernardo Rd	Bioretention (No Underdrain)	202
221024	Culver City	Berryman Ave	Bioretention (No Underdrain)	1,571
221024	Culver City	Blanco Way	Bioretention (No Underdrain)	1,121
221024	Culver City	Bush Way	Bioretention (No Underdrain)	831
221024	Culver City	Coolidge Ave	Bioretention (No Underdrain)	416
221024	Culver City	Corryne Pl	Bioretention (No Underdrain)	164
221024	Culver City	Cota St	Bioretention (No Underdrain)	795
221024	Culver City	Cranks Rd	Bioretention (No Underdrain)	1,595
221024	Culver City	Culver Park Dr	Bioretention (No Underdrain)	2,117
221024	Culver City	Culver Park Pl	Bioretention (No Underdrain)	220
221024	Culver City	Culview St	Bioretention (No Underdrain)	329
221024	Culver City	Diller Ave	Bioretention (No Underdrain)	1,141
221024	Culver City	Dobson Way	Bioretention (No Underdrain)	965
221024	Culver City	Drakewood Ave	Bioretention (No Underdrain)	45
221024	Culver City	el Rincon Way	Bioretention (No Underdrain)	345
221024	Culver City	Esterina Way	Bioretention (No Underdrain)	130
221024	Culver City	Eveward Rd	Bioretention (No Underdrain)	625
221024	Culver City	Fairbanks Way	Bioretention (No Underdrain)	737
221024	Culver City	Grayridge Dr	Bioretention (No Underdrain)	690
221024	Culver City	Hannum Ave	Bioretention (No Underdrain)	2,914
221024	Culver City	Hayter Ave	Bioretention (No Underdrain)	886
221024	Culver City	Heritage Pl	Bioretention (No Underdrain)	21
221024	Culver City	Hill Rd	Bioretention (No Underdrain)	324
221024	Culver City	Janisann Ave	Bioretention (No Underdrain)	1,178
221024	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	4,220
221024	Culver City	Kalein Dr	Bioretention (No Underdrain)	803
221024	Culver City	Kelmore St	Bioretention (No Underdrain)	1,609
221024	Culver City	Kingston Ave	Bioretention (No Underdrain)	494
221024	Culver City	Kinston Ave	Bioretention (No Underdrain)	494
221024	Culver City	Knightsbridge Ave	Bioretention (No Underdrain)	70
221024	Culver City	Linda Way	Bioretention (No Underdrain)	288
221024	Culver City	Lugo Way	Bioretention (No Underdrain)	221
221024	Culver City	Machado Rd	Bioretention (No Underdrain)	771
221024	Culver City	Malat Way	Bioretention (No Underdrain)	1,077
221024	Culver City	McDonald St	Bioretention (No Underdrain)	547
221024	Culver City	Molony Rd	Bioretention (No Underdrain)	594

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221024	Culver City	North Dr	Bioretention (No Underdrain)	70
221024	Culver City	Orville St	Bioretention (No Underdrain)	1,129
221024	Culver City	Overland Ave	Bioretention (No Underdrain)	1,792
221024	Culver City	Patom Dr	Bioretention (No Underdrain)	1,605
221024	Culver City	Pickford Way	Bioretention (No Underdrain)	750
221024	Culver City	Playa Ct	Bioretention (No Underdrain)	876
221024	Culver City	Playa St	Bioretention (No Underdrain)	3,744
221024	Culver City	Port Rd	Bioretention (No Underdrain)	651
221024	Culver City	Purdue Ave	Bioretention (No Underdrain)	54
221024	Culver City	Ranch Rd	Bioretention (No Underdrain)	681
221024	Culver City	Rudman Dr	Bioretention (No Underdrain)	900
221024	Culver City	Ryandale Dr	Bioretention (No Underdrain)	783
221024	Culver City	S Sepulveda Blvd	Bioretention (No Underdrain)	4,499
221024	Culver City	S Slauson Ave	Bioretention (No Underdrain)	489
221024	Culver City	Sawtelle Blvd	Bioretention (No Underdrain)	3,777
221024	Culver City	Segrell Way	Bioretention (No Underdrain)	2,341
221024	Culver City	Selmaraine Dr	Bioretention (No Underdrain)	13
221024	Culver City	Sepulveda Blvd	Bioretention (No Underdrain)	4,499
221024	Culver City	Slauson Ave	Bioretention (No Underdrain)	10
221024	Culver City	South Dr	Bioretention (No Underdrain)	54
221024	Culver City	Stephon Ter	Bioretention (No Underdrain)	263
221024	Culver City	Stevens Ave	Bioretention (No Underdrain)	1,256
221024	Culver City	Stever Ct	Bioretention (No Underdrain)	195
221024	Culver City	Stever St	Bioretention (No Underdrain)	791
221024	Culver City	Stubbs Ln	Bioretention (No Underdrain)	585
221024	Culver City	Tellefson Rd	Bioretention (No Underdrain)	484
221024	Culver City	W Slauson Ave	Bioretention (No Underdrain)	10
221024	Culver City	Whitburn St	Bioretention (No Underdrain)	143
221024	Culver City	Woolford St	Bioretention (No Underdrain)	591
221024	Culver City	Youngworth Rd	Bioretention (No Underdrain)	19
221025	Culver City	(unknown)	Bioretention (No Underdrain)	1,469
221025	Culver City	Bristol Pkwy	Bioretention (No Underdrain)	6
221025	Culver City	Buckingham Pkwy	Bioretention (No Underdrain)	1,055
221025	Culver City	Corryne Pl	Bioretention (No Underdrain)	100
221025	Culver City	Cranks Rd	Bioretention (No Underdrain)	42
221025	Culver City	Esterina Way	Bioretention (No Underdrain)	313
221025	Culver City	Hannum Ave	Bioretention (No Underdrain)	421
221025	Culver City	Hill Rd	Bioretention (No Underdrain)	35
221025	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	391
221025	Culver City	Knightsbridge Ave	Bioretention (No Underdrain)	83
221025	Culver City	Linda Way	Bioretention (No Underdrain)	12
221025	Culver City	Playa Ct	Bioretention (No Underdrain)	58
221025	Culver City	Playa St	Bioretention (No Underdrain)	109
221025	Culver City	S Sepulveda Blvd	Bioretention (No Underdrain)	1,355
221025	Culver City	Sepulveda Blvd	Bioretention (No Underdrain)	1,355
221025	Culver City	Slauson Ave	Bioretention (No Underdrain)	2,612
221025	Culver City	W Slauson Ave	Bioretention (No Underdrain)	2,640
221026	Culver City	(unknown)	Bioretention (No Underdrain)	962
221026	Culver City	Arizona Ave	Bioretention (No Underdrain)	103
221026	Culver City	Green Valley Cir	Bioretention (No Underdrain)	793
221026	Culver City	Hannum Ave	Bioretention (No Underdrain)	257
221026	Culver City	S Sepulveda Blvd	Bioretention (No Underdrain)	2,311
221026	Culver City	Selmaraine Dr	Bioretention (No Underdrain)	183
221026	Culver City	Sepulveda Blvd	Bioretention (No Underdrain)	2,311
221026	Culver City	W Centinela Ave	Bioretention (No Underdrain)	1,114

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221027	Culver City	(unknown)	Bioretention (No Underdrain)	308
221027	Culver City	Bristol Pkwy	Bioretention (No Underdrain)	1,770
221027	Culver City	Buckingham Pkwy	Bioretention (No Underdrain)	2,325
221027	Culver City	Cambridge Way	Bioretention (No Underdrain)	229
221027	Culver City	Canterbury Dr	Bioretention (No Underdrain)	1,638
221027	Culver City	Corporate Pointe	Bioretention (No Underdrain)	104
221027	Culver City	Corporate Pointe Walk	Bioretention (No Underdrain)	104
221027	Culver City	Doverwood Dr	Bioretention (No Underdrain)	615
221027	Culver City	Green Valley Cir	Bioretention (No Underdrain)	1,330
221027	Culver City	Hannum Ave	Bioretention (No Underdrain)	1,582
221027	Culver City	Kensington Way	Bioretention (No Underdrain)	274
221027	Culver City	N Summer Way	Bioretention (No Underdrain)	405
221027	Culver City	Sumner Way	Bioretention (No Underdrain)	405
221027	Culver City	Uplander Way	Bioretention (No Underdrain)	1,676
221027	Culver City	W Slauson Ave	Bioretention (No Underdrain)	2,092
221027	Culver City	Windsor Way	Bioretention (No Underdrain)	361
221028	Culver City	(unknown)	Bioretention (No Underdrain)	543
221028	Culver City	Bristol Pkwy	Bioretention (No Underdrain)	337
221028	Culver City	Canterbury Dr	Bioretention (No Underdrain)	932
221028	Culver City	Green Valley Cir	Bioretention (No Underdrain)	1,035
221028	Culver City	W Centinela Ave	Bioretention (No Underdrain)	1,982
221028	Culver City	W Slauson Ave	Bioretention (No Underdrain)	96
221028	Culver City	Windsor Way	Bioretention (No Underdrain)	66
221031	Culver City	(unknown)	Bioretention (No Underdrain)	7,200
221031	Culver City	Albright Ave	Bioretention (No Underdrain)	2,955
221031	Culver City	Barman Ave	Bioretention (No Underdrain)	861
221031	Culver City	Berryman Ave	Bioretention (No Underdrain)	1,937
221031	Culver City	Bledsoe Ave	Bioretention (No Underdrain)	1,504
221031	Culver City	Braddock Dr	Bioretention (No Underdrain)	655
221031	Culver City	Coolidge Ave	Bioretention (No Underdrain)	2,050
221031	Culver City	Culver Blvd	Bioretention (No Underdrain)	592
221031	Culver City	Globe Ave	Bioretention (No Underdrain)	1,861
221031	Culver City	Herbert St	Bioretention (No Underdrain)	1,632
221031	Culver City	Huntley Ave	Bioretention (No Underdrain)	390
221031	Culver City	Matteson Ave	Bioretention (No Underdrain)	414
221031	Culver City	McLaughlin Ave	Bioretention (No Underdrain)	292
221031	Culver City	Minerva Ave	Bioretention (No Underdrain)	1,659
221031	Culver City	Purdue Ave	Bioretention (No Underdrain)	152
221031	Culver City	Sawtelle Blvd	Bioretention (No Underdrain)	3,232
221031	Culver City	Tuller Ave	Bioretention (No Underdrain)	871
221031	Culver City	W Washington Blvd	Bioretention (No Underdrain)	2,012
221031	Culver City	Washington Blvd	Bioretention (No Underdrain)	2,012
221046	Culver City	(unknown)	Bioretention (No Underdrain)	52
221046	Culver City	Baldwin Ave	Bioretention (No Underdrain)	1,734
221046	Culver City	Braddock Dr	Bioretention (No Underdrain)	555
221046	Culver City	Culver Blvd	Bioretention (No Underdrain)	210
221046	Culver City	Farragut Dr	Bioretention (No Underdrain)	875
221046	Culver City	Jackson Ave	Bioretention (No Underdrain)	3,030
221046	Culver City	la Salle Ave	Bioretention (No Underdrain)	2,636
221046	Culver City	Leahy St	Bioretention (No Underdrain)	471
221046	Culver City	Madison Ave	Bioretention (No Underdrain)	7
221046	Culver City	Pearson St	Bioretention (No Underdrain)	413
221046	Culver City	Revere Pl	Bioretention (No Underdrain)	921
221047	Culver City	(unknown)	Bioretention (No Underdrain)	68
221047	Culver City	Duquesne Ave	Bioretention (No Underdrain)	186

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221047	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	32
221048	Culver City	(unknown)	Bioretention (No Underdrain)	150
221048	Culver City	Duquesne Ave	Bioretention (No Underdrain)	75
221048	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	1,570
221049	Culver City	(unknown)	Bioretention (No Underdrain)	292
221049	Culver City	Bagley Ave	Bioretention (No Underdrain)	0
221049	Culver City	Braddock Dr	Bioretention (No Underdrain)	1,553
221049	Culver City	Cardiff Ave	Bioretention (No Underdrain)	433
221049	Culver City	Culver Blvd	Bioretention (No Underdrain)	2,969
221049	Culver City	Culver City Police Dept	Bioretention (No Underdrain)	40
221049	Culver City	Delmas Ter	Bioretention (No Underdrain)	469
221049	Culver City	Dunn Dr	Bioretention (No Underdrain)	31
221049	Culver City	Duquesne Ave	Bioretention (No Underdrain)	335
221049	Culver City	Farragut Dr	Bioretention (No Underdrain)	433
221049	Culver City	Grant Ave	Bioretention (No Underdrain)	75
221049	Culver City	Hughes Ave	Bioretention (No Underdrain)	26
221049	Culver City	Ince Blvd	Bioretention (No Underdrain)	302
221049	Culver City	Irving Pl	Bioretention (No Underdrain)	972
221049	Culver City	Lafayette Pl	Bioretention (No Underdrain)	1,043
221049	Culver City	Lincoln Ave	Bioretention (No Underdrain)	924
221049	Culver City	Madison Ave	Bioretention (No Underdrain)	3,596
221049	Culver City	Main St	Bioretention (No Underdrain)	368
221049	Culver City	S Canfield Ave	Bioretention (No Underdrain)	134
221049	Culver City	School St	Bioretention (No Underdrain)	382
221049	Culver City	Van Buren Pl	Bioretention (No Underdrain)	742
221049	Culver City	W Washington Blvd	Bioretention (No Underdrain)	884
221049	Culver City	Washington Blvd	Bioretention (No Underdrain)	1,166
221049	Culver City	Watseka Ave	Bioretention (No Underdrain)	510
221061	Culver City	(unknown)	Bioretention (No Underdrain)	315
221061	Culver City	Adams Blvd	Bioretention (No Underdrain)	763
221061	Culver City	Blackwelder St	Bioretention (No Underdrain)	971
221061	Culver City	Duquesne Ave	Bioretention (No Underdrain)	51
221061	Culver City	Fairfax Ave	Bioretention (No Underdrain)	149
221061	Culver City	Higuera St	Bioretention (No Underdrain)	9
221061	Culver City	Hines Ave	Bioretention (No Underdrain)	366
221061	Culver City	Lincoln Ave	Bioretention (No Underdrain)	10
221061	Culver City	Perry Dr	Bioretention (No Underdrain)	595
221061	Culver City	S Fairfax Ave	Bioretention (No Underdrain)	84
221061	Culver City	S la Cienega Blvd	Bioretention (No Underdrain)	1,189
221061	Culver City	Smiley Dr	Bioretention (No Underdrain)	866
221061	Culver City	W Washington Blvd	Bioretention (No Underdrain)	330
221061	Culver City	Washington Blvd	Bioretention (No Underdrain)	330
221062	Culver City	(unknown)	Bioretention (No Underdrain)	262
221062	Culver City	Carson St	Bioretention (No Underdrain)	1,971
221062	Culver City	Culver Blvd	Bioretention (No Underdrain)	1,704
221062	Culver City	Culver City Police Dept	Bioretention (No Underdrain)	28
221062	Culver City	Delmas Ter	Bioretention (No Underdrain)	56
221062	Culver City	Duquesne Ave	Bioretention (No Underdrain)	1,071
221062	Culver City	E Carson St	Bioretention (No Underdrain)	1,971
221062	Culver City	Exposition Blvd	Bioretention (No Underdrain)	396
221062	Culver City	Hayden Pl	Bioretention (No Underdrain)	754
221062	Culver City	Higuera St	Bioretention (No Underdrain)	1,903
221062	Culver City	Hoke Ave	Bioretention (No Underdrain)	150
221062	Culver City	Hubbard St	Bioretention (No Underdrain)	1,543
221062	Culver City	Hughes Ave	Bioretention (No Underdrain)	10

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221062	Culver City	Ince Blvd	Bioretention (No Underdrain)	2,232
221062	Culver City	Krueger St	Bioretention (No Underdrain)	1,328
221062	Culver City	Lafayette Pl	Bioretention (No Underdrain)	20
221062	Culver City	Landmark St	Bioretention (No Underdrain)	764
221062	Culver City	Lindblade St	Bioretention (No Underdrain)	1,311
221062	Culver City	Lucerne Ave	Bioretention (No Underdrain)	846
221062	Culver City	National Blvd	Bioretention (No Underdrain)	546
221062	Culver City	Poinsettia Ct	Bioretention (No Underdrain)	716
221062	Culver City	Robertson Blvd	Bioretention (No Underdrain)	529
221062	Culver City	Van Buren Pl	Bioretention (No Underdrain)	71
221062	Culver City	W Washington Blvd	Bioretention (No Underdrain)	3,769
221062	Culver City	Washington Blvd	Bioretention (No Underdrain)	3,805
221062	Culver City	Watseka Ave	Bioretention (No Underdrain)	21
221062	Culver City	Wesley St	Bioretention (No Underdrain)	1,954
221062	Culver City	Willat Ave	Bioretention (No Underdrain)	329
221063	Culver City	(unknown)	Bioretention (No Underdrain)	274
221063	Culver City	Adams Blvd	Bioretention (No Underdrain)	7
221063	Culver City	Burchard Ave	Bioretention (No Underdrain)	96
221063	Culver City	Comey Ave	Bioretention (No Underdrain)	106
221063	Culver City	Dauphin Ave	Bioretention (No Underdrain)	170
221063	Culver City	Dauphin St	Bioretention (No Underdrain)	170
221063	Culver City	David Ave	Bioretention (No Underdrain)	97
221063	Culver City	Ernest Ave	Bioretention (No Underdrain)	75
221063	Culver City	Hines Ave	Bioretention (No Underdrain)	64
221063	Culver City	S la Cienega Blvd	Bioretention (No Underdrain)	231
221063	Culver City	W Washington Blvd	Bioretention (No Underdrain)	1,354
221063	Culver City	Washington Blvd	Bioretention (No Underdrain)	1,354
221064	Culver City	(unknown)	Bioretention (No Underdrain)	2,613
221064	Culver City	Caroline Ave	Bioretention (No Underdrain)	873
221064	Culver City	Cattaraugus Ave	Bioretention (No Underdrain)	1,154
221064	Culver City	Eastham Dr	Bioretention (No Underdrain)	14
221064	Culver City	Fay Ave	Bioretention (No Underdrain)	1,306
221064	Culver City	Hargis St	Bioretention (No Underdrain)	34
221064	Culver City	Hayden Ave	Bioretention (No Underdrain)	63
221064	Culver City	Helms Ave	Bioretention (No Underdrain)	760
221064	Culver City	Hutchison Ave	Bioretention (No Underdrain)	17
221064	Culver City	Jacob St	Bioretention (No Underdrain)	2,445
221064	Culver City	la Cienega Ave	Bioretention (No Underdrain)	28
221064	Culver City	McManus Ave	Bioretention (No Underdrain)	1,136
221064	Culver City	Melvil St	Bioretention (No Underdrain)	33
221064	Culver City	Reid Ave	Bioretention (No Underdrain)	1,047
221064	Culver City	Reid St	Bioretention (No Underdrain)	1,047
221064	Culver City	Roberts Ave	Bioretention (No Underdrain)	1,097
221064	Culver City	S Sherbourne Dr	Bioretention (No Underdrain)	22
221064	Culver City	Schaefer St	Bioretention (No Underdrain)	28
221064	Culver City	Sentney Ave	Bioretention (No Underdrain)	666
221064	Culver City	Sherbourne Dr	Bioretention (No Underdrain)	999
221064	Culver City	Smiley Dr	Bioretention (No Underdrain)	166
221064	Culver City	W Washington Blvd	Bioretention (No Underdrain)	2,674
221064	Culver City	Washington Blvd	Bioretention (No Underdrain)	2,674
221064	Culver City	Wesley St	Bioretention (No Underdrain)	27
221065	Culver City	(unknown)	Bioretention (No Underdrain)	455
221065	Culver City	Eastham Dr	Bioretention (No Underdrain)	1,020
221065	Culver City	Hayden Ave	Bioretention (No Underdrain)	1,162
221065	Culver City	Hayden Pl	Bioretention (No Underdrain)	1,168

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
221065	Culver City	Helms Ave	Bioretention (No Underdrain)	1,582
221065	Culver City	Higuera St	Bioretention (No Underdrain)	3,235
221065	Culver City	Schaefer St	Bioretention (No Underdrain)	1,607
221065	Culver City	Steller Dr	Bioretention (No Underdrain)	1,045
221065	Culver City	Warner Dr	Bioretention (No Underdrain)	1,055
221067	Culver City	(unknown)	Bioretention (No Underdrain)	446
221067	Culver City	Hollyview Ter	Bioretention (No Underdrain)	59
221067	Culver City	S la Cienega Blvd	Bioretention (No Underdrain)	1,793
221067	Culver City	Vicstone Ct	Bioretention (No Underdrain)	343
221067	Culver City	Wrightcrest Dr	Bioretention (No Underdrain)	69
221068	Culver City	(unknown)	Bioretention (No Underdrain)	2,597
221068	Culver City	Duquesne Ave	Bioretention (No Underdrain)	1,380
221068	Culver City	Farragut Dr	Bioretention (No Underdrain)	1,136
221068	Culver City	Irving Pl	Bioretention (No Underdrain)	1,302
221068	Culver City	Lafayette Pl	Bioretention (No Underdrain)	1,210
221068	Culver City	Lincoln Ave	Bioretention (No Underdrain)	1,620
221068	Culver City	Lucerne Ave	Bioretention (No Underdrain)	1,408
221068	Culver City	Van Buren Pl	Bioretention (No Underdrain)	1,488
221069	Culver City	(unknown)	Bioretention (No Underdrain)	1,085
221069	Culver City	Blairstone Dr	Bioretention (No Underdrain)	672
221069	Culver City	Crestview Rd	Bioretention (No Underdrain)	224
221069	Culver City	Hollyview Ter	Bioretention (No Underdrain)	93
221069	Culver City	Howardview Ct	Bioretention (No Underdrain)	112
221069	Culver City	Ivy Way	Bioretention (No Underdrain)	540
221069	Culver City	Jefferson Blvd	Bioretention (No Underdrain)	57
221069	Culver City	Leeview Ct	Bioretention (No Underdrain)	136
221069	Culver City	Lenawee Ave	Bioretention (No Underdrain)	1,148
221069	Culver City	Perham Dr	Bioretention (No Underdrain)	184
221069	Culver City	Stoneview Dr	Bioretention (No Underdrain)	716
221069	Culver City	Ver Halen Ct	Bioretention (No Underdrain)	238
221069	Culver City	Vicstone Ct	Bioretention (No Underdrain)	6
221069	Culver City	W Jefferson Blvd	Bioretention (No Underdrain)	429
221069	Culver City	Wrightcrest Dr	Bioretention (No Underdrain)	879
221083	Culver City	(unknown)	Bioretention (No Underdrain)	893
221083	Culver City	Cattaraugus Ave	Bioretention (No Underdrain)	191
221083	Culver City	Fay Ave	Bioretention (No Underdrain)	187
221083	Culver City	Hargis St	Bioretention (No Underdrain)	185
221083	Culver City	Helms Ave	Bioretention (No Underdrain)	58
221083	Culver City	Hutchison Ave	Bioretention (No Underdrain)	197
221083	Culver City	la Cienega Ave	Bioretention (No Underdrain)	198
221083	Culver City	McManus Ave	Bioretention (No Underdrain)	184
221083	Culver City	Melvil St	Bioretention (No Underdrain)	190
221083	Culver City	S Sherbourne Dr	Bioretention (No Underdrain)	194
221083	Culver City	W Washington Blvd	Bioretention (No Underdrain)	3,237
221083	Culver City	Washington Blvd	Bioretention (No Underdrain)	3,237
221093	Culver City	(unknown)	Bioretention (No Underdrain)	1,052
221093	Culver City	Burchard Ave	Bioretention (No Underdrain)	126
221093	Culver City	Comey Ave	Bioretention (No Underdrain)	116
221093	Culver City	Dauphin Ave	Bioretention (No Underdrain)	45
221093	Culver City	Dauphin St	Bioretention (No Underdrain)	45
221093	Culver City	David Ave	Bioretention (No Underdrain)	116
221093	Culver City	Ernest Ave	Bioretention (No Underdrain)	138
221093	Culver City	S Fairfax Ave	Bioretention (No Underdrain)	16
221093	Culver City	S la Cienega Blvd	Bioretention (No Underdrain)	22
221175	Culver City	W Centinela Ave	Bioretention (No Underdrain)	307

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
371028	Inglewood	(unknown)	Bioretention (No Underdrain)	3,465
371028	Inglewood	Acacia St	Bioretention (No Underdrain)	1
371028	Inglewood	Austin Ave	Bioretention (No Underdrain)	47
371028	Inglewood	Centinela Ave	Bioretention (No Underdrain)	3,031
371028	Inglewood	Cory Dr	Bioretention (No Underdrain)	943
371028	Inglewood	Enterprise Ave	Bioretention (No Underdrain)	795
371028	Inglewood	Evergreen St	Bioretention (No Underdrain)	1,229
371028	Inglewood	Flora Dr	Bioretention (No Underdrain)	406
371028	Inglewood	Glenway Dr	Bioretention (No Underdrain)	1,731
371028	Inglewood	Hardin Dr	Bioretention (No Underdrain)	318
371028	Inglewood	Hill St	Bioretention (No Underdrain)	1,424
371028	Inglewood	Kew St	Bioretention (No Underdrain)	340
371028	Inglewood	Kincaid Ave	Bioretention (No Underdrain)	679
371028	Inglewood	Kincaid St	Bioretention (No Underdrain)	679
371028	Inglewood	Knowlton St	Bioretention (No Underdrain)	15
371028	Inglewood	la Tijera Blvd	Bioretention (No Underdrain)	1,366
371028	Inglewood	Laurelwood Dr	Bioretention (No Underdrain)	774
371028	Inglewood	N Acacia St	Bioretention (No Underdrain)	2,503
371028	Inglewood	N Beach St	Bioretention (No Underdrain)	281
371028	Inglewood	N Cedar St	Bioretention (No Underdrain)	861
371028	Inglewood	N Inglewood Ave	Bioretention (No Underdrain)	1,775
371028	Inglewood	S Copperwood Ave	Bioretention (No Underdrain)	990
371028	Inglewood	S Fairfax Ave	Bioretention (No Underdrain)	165
371028	Inglewood	S la Cienega Blvd	Bioretention (No Underdrain)	3,675
371028	Inglewood	S la Tijera Blvd	Bioretention (No Underdrain)	1,366
371028	Inglewood	S Laurelwood Dr	Bioretention (No Underdrain)	774
371028	Inglewood	Short St	Bioretention (No Underdrain)	716
371028	Inglewood	Venice Way	Bioretention (No Underdrain)	1,689
371028	Inglewood	Victor Ave	Bioretention (No Underdrain)	1,566
371028	Inglewood	W 64th Pl	Bioretention (No Underdrain)	2,533
371028	Inglewood	W 64th St	Bioretention (No Underdrain)	2,149
371028	Inglewood	W Amberwood Dr	Bioretention (No Underdrain)	588
371028	Inglewood	W Beach Ave	Bioretention (No Underdrain)	3,556
371028	Inglewood	W Centinela Ave	Bioretention (No Underdrain)	13
371028	Inglewood	W Ellis Ave	Bioretention (No Underdrain)	2,896
371028	Inglewood	W Fairview Blvd	Bioretention (No Underdrain)	2,935
371028	Inglewood	W Goldenwood Dr	Bioretention (No Underdrain)	299
371028	Inglewood	W Hillsdale St	Bioretention (No Underdrain)	2,987
371028	Inglewood	W Plymouth St	Bioretention (No Underdrain)	1,592
371030	Inglewood	(unknown)	Bioretention (No Underdrain)	31,942
371030	Inglewood	Alpha St	Bioretention (No Underdrain)	858
371030	Inglewood	Alviso Ave	Bioretention (No Underdrain)	303
371030	Inglewood	Austin Ave	Bioretention (No Underdrain)	527
371030	Inglewood	Buckler Ave	Bioretention (No Underdrain)	1,058
371030	Inglewood	Cable Pl	Bioretention (No Underdrain)	10
371030	Inglewood	Centinela Ave	Bioretention (No Underdrain)	4,740
371030	Inglewood	Condon Ave	Bioretention (No Underdrain)	120
371030	Inglewood	E 64th Pl	Bioretention (No Underdrain)	907
371030	Inglewood	E 65th St	Bioretention (No Underdrain)	3,619
371030	Inglewood	E 66th St	Bioretention (No Underdrain)	2,082
371030	Inglewood	E 67th St	Bioretention (No Underdrain)	4,555
371030	Inglewood	E 68th St	Bioretention (No Underdrain)	1,568
371030	Inglewood	E Beach Ave	Bioretention (No Underdrain)	2,288
371030	Inglewood	E Brett St	Bioretention (No Underdrain)	4,699
371030	Inglewood	E Ellis Ave	Bioretention (No Underdrain)	2,724

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
371030	Inglewood	E Fair Pl	Bioretention (No Underdrain)	131
371030	Inglewood	E Fairview Blvd	Bioretention (No Underdrain)	6,186
371030	Inglewood	E Florence Ave	Bioretention (No Underdrain)	1,292
371030	Inglewood	E Hazel St	Bioretention (No Underdrain)	3,163
371030	Inglewood	E Hillsdale St	Bioretention (No Underdrain)	2,443
371030	Inglewood	E Hyde Park Blvd	Bioretention (No Underdrain)	7,265
371030	Inglewood	E Hyde Park Pl	Bioretention (No Underdrain)	1,386
371030	Inglewood	E Ivy Ave	Bioretention (No Underdrain)	972
371030	Inglewood	E Park Way	Bioretention (No Underdrain)	401
371030	Inglewood	E Plymouth St	Bioretention (No Underdrain)	1,583
371030	Inglewood	E Queen St	Bioretention (No Underdrain)	1,345
371030	Inglewood	E Regent St	Bioretention (No Underdrain)	2,078
371030	Inglewood	Edgewood St	Bioretention (No Underdrain)	3,139
371030	Inglewood	Eileen Ave	Bioretention (No Underdrain)	0
371030	Inglewood	Fair Pl	Bioretention (No Underdrain)	345
371030	Inglewood	Field Ave	Bioretention (No Underdrain)	896
371030	Inglewood	Forest St	Bioretention (No Underdrain)	680
371030	Inglewood	Glenway Dr	Bioretention (No Underdrain)	357
371030	Inglewood	Grace Ave	Bioretention (No Underdrain)	2,039
371030	Inglewood	Grosvenor St	Bioretention (No Underdrain)	740
371030	Inglewood	Hargrave St	Bioretention (No Underdrain)	3,076
371030	Inglewood	High St	Bioretention (No Underdrain)	272
371030	Inglewood	Industrial Ave	Bioretention (No Underdrain)	412
371030	Inglewood	Inglewood Ave	Bioretention (No Underdrain)	311
371030	Inglewood	Keniston Ave	Bioretention (No Underdrain)	0
371030	Inglewood	la Brea Ave	Bioretention (No Underdrain)	7,125
371030	Inglewood	Lamos St	Bioretention (No Underdrain)	485
371030	Inglewood	Meadowbrook Ln	Bioretention (No Underdrain)	39
371030	Inglewood	N Ash Ave	Bioretention (No Underdrain)	469
371030	Inglewood	N Cedar Ave	Bioretention (No Underdrain)	1,059
371030	Inglewood	N Chester Ave	Bioretention (No Underdrain)	2,339
371030	Inglewood	N Eucalyptus Ave	Bioretention (No Underdrain)	6,552
371030	Inglewood	N Exton Ave	Bioretention (No Underdrain)	1,491
371030	Inglewood	N Fir Ave	Bioretention (No Underdrain)	854
371030	Inglewood	N Gay St	Bioretention (No Underdrain)	2,558
371030	Inglewood	N Grevillea Ave	Bioretention (No Underdrain)	467
371030	Inglewood	N Hillcrest Blvd	Bioretention (No Underdrain)	1,727
371030	Inglewood	N Inglewood Ave	Bioretention (No Underdrain)	2,422
371030	Inglewood	N Lamos St	Bioretention (No Underdrain)	49
371030	Inglewood	N Locust St	Bioretention (No Underdrain)	1,427
371030	Inglewood	N Long St	Bioretention (No Underdrain)	2,367
371030	Inglewood	N Market St	Bioretention (No Underdrain)	5,209
371030	Inglewood	N Marlborough Ave	Bioretention (No Underdrain)	2,314
371030	Inglewood	N Oak St	Bioretention (No Underdrain)	3,297
371030	Inglewood	N Osage Ave	Bioretention (No Underdrain)	341
371030	Inglewood	N Park Ave	Bioretention (No Underdrain)	2,795
371030	Inglewood	N Prairie Ave	Bioretention (No Underdrain)	1,080
371030	Inglewood	Overhill Dr	Bioretention (No Underdrain)	512
371030	Inglewood	Pepper Ct	Bioretention (No Underdrain)	338
371030	Inglewood	Pine Ct	Bioretention (No Underdrain)	277
371030	Inglewood	S Ash Ave	Bioretention (No Underdrain)	282
371030	Inglewood	S Cedar Ave	Bioretention (No Underdrain)	290
371030	Inglewood	S Eucalyptus Ave	Bioretention (No Underdrain)	284
371030	Inglewood	S Fir Ave	Bioretention (No Underdrain)	296
371030	Inglewood	S Harcourt Ave	Bioretention (No Underdrain)	0

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
371030	Inglewood	S Inglewood Ave	Bioretention (No Underdrain)	311
371030	Inglewood	S la Brea Ave	Bioretention (No Underdrain)	7,125
371030	Inglewood	S la Cienega Blvd	Bioretention (No Underdrain)	1,181
371030	Inglewood	S Locust St	Bioretention (No Underdrain)	187
371030	Inglewood	S Market St	Bioretention (No Underdrain)	182
371030	Inglewood	S Oak St	Bioretention (No Underdrain)	286
371030	Inglewood	S Verdun Ave	Bioretention (No Underdrain)	0
371030	Inglewood	Saint John Pl	Bioretention (No Underdrain)	1,112
371030	Inglewood	Stepney Pl	Bioretention (No Underdrain)	725
371030	Inglewood	Stepney St	Bioretention (No Underdrain)	3,470
371030	Inglewood	Thornburn St	Bioretention (No Underdrain)	12
371030	Inglewood	Venice Way	Bioretention (No Underdrain)	850
371030	Inglewood	Verdun Ave	Bioretention (No Underdrain)	306
371030	Inglewood	Vesta St	Bioretention (No Underdrain)	269
371030	Inglewood	W 64th Pl	Bioretention (No Underdrain)	996
371030	Inglewood	W 64th St	Bioretention (No Underdrain)	2,705
371030	Inglewood	W Beach Ave	Bioretention (No Underdrain)	3,676
371030	Inglewood	W Ellis Ave	Bioretention (No Underdrain)	830
371030	Inglewood	W Fairview Blvd	Bioretention (No Underdrain)	796
371030	Inglewood	W Florence Ave	Bioretention (No Underdrain)	1,983
371030	Inglewood	W Hazel St	Bioretention (No Underdrain)	549
371030	Inglewood	W Hillsdale St	Bioretention (No Underdrain)	848
371030	Inglewood	W Hyde Park Blvd	Bioretention (No Underdrain)	5,118
371030	Inglewood	W Ivy Ave	Bioretention (No Underdrain)	953
371030	Inglewood	W Juniper St	Bioretention (No Underdrain)	571
371030	Inglewood	W Plymouth St	Bioretention (No Underdrain)	1,099
371030	Inglewood	W Queen St	Bioretention (No Underdrain)	4,122
371030	Inglewood	W Regent St	Bioretention (No Underdrain)	3,819
371030	Inglewood	Warren Ln	Bioretention (No Underdrain)	2,998
371030	Inglewood	Welton Way	Bioretention (No Underdrain)	2,479
371030	Inglewood	Wexham Way	Bioretention (No Underdrain)	1,750
371080	Inglewood	(unknown)	Bioretention (No Underdrain)	8,900
371080	Inglewood	5th Ave	Bioretention (No Underdrain)	87
371080	Inglewood	7th Ave	Bioretention (No Underdrain)	2,205
371080	Inglewood	8th Ave	Bioretention (No Underdrain)	1,889
371080	Inglewood	Crenshaw Blvd	Bioretention (No Underdrain)	674
371080	Inglewood	E Florence Ave	Bioretention (No Underdrain)	534
371080	Inglewood	Maitland Ave	Bioretention (No Underdrain)	1,677
371080	Inglewood	Park Cir	Bioretention (No Underdrain)	743
371080	Inglewood	S 10th Ave	Bioretention (No Underdrain)	479
371080	Inglewood	S 2nd Ave	Bioretention (No Underdrain)	4,080
371080	Inglewood	S 3rd Ave	Bioretention (No Underdrain)	4,015
371080	Inglewood	S 4th Ave	Bioretention (No Underdrain)	1,818
371080	Inglewood	S 5th Ave	Bioretention (No Underdrain)	4,154
371080	Inglewood	S Byrd Ave	Bioretention (No Underdrain)	1,510
371080	Inglewood	S Van Ness Ave	Bioretention (No Underdrain)	4,866
371080	Inglewood	S Victoria Ave	Bioretention (No Underdrain)	663
371080	Inglewood	W 3rd Ave	Bioretention (No Underdrain)	973
371080	Inglewood	W 74th Pl	Bioretention (No Underdrain)	540
371080	Inglewood	W 75th Pl	Bioretention (No Underdrain)	458
371080	Inglewood	W 77th St	Bioretention (No Underdrain)	2,681
371080	Inglewood	W 78th Pl	Bioretention (No Underdrain)	3,178
371080	Inglewood	W 78th St	Bioretention (No Underdrain)	3,175
371080	Inglewood	W 79th St	Bioretention (No Underdrain)	3,172
371080	Inglewood	W 80th St	Bioretention (No Underdrain)	4,817

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
371080	Inglewood	W 81st St	Bioretention (No Underdrain)	4,761
371080	Inglewood	W 82nd Pl	Bioretention (No Underdrain)	200
371080	Inglewood	W 82nd St	Bioretention (No Underdrain)	1,086
371080	Inglewood	W 83rd St	Bioretention (No Underdrain)	843
371080	Inglewood	W 84th Pl	Bioretention (No Underdrain)	1,087
371080	Inglewood	W 84th St	Bioretention (No Underdrain)	534
371080	Inglewood	W 85th St	Bioretention (No Underdrain)	1,110
371080	Inglewood	W 88th St	Bioretention (No Underdrain)	1,314
371080	Inglewood	W 90th St	Bioretention (No Underdrain)	659
371080	Inglewood	West Blvd	Bioretention (No Underdrain)	1,613
491001	Los Angeles	Ballona Promenade Park	Bioretention (No Underdrain)	135
491001	Los Angeles	Bay St	Bioretention (No Underdrain)	83
491001	Los Angeles	S Pacific Ave	Bioretention (No Underdrain)	263
491004	Los Angeles	(unknown)	Bioretention (No Underdrain)	622
491004	Los Angeles	Admiral Ave	Bioretention (No Underdrain)	1,373
491004	Los Angeles	Alla Rd	Bioretention (No Underdrain)	5,576
491004	Los Angeles	Beach Ave	Bioretention (No Underdrain)	18
491004	Los Angeles	Beethoven St	Bioretention (No Underdrain)	5,506
491004	Los Angeles	Bonaparte Ave	Bioretention (No Underdrain)	1,308
491004	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	1,229
491004	Los Angeles	Gilmore Ave	Bioretention (No Underdrain)	1,281
491004	Los Angeles	Glencoe Ave	Bioretention (No Underdrain)	327
491004	Los Angeles	Greene Ave	Bioretention (No Underdrain)	1,238
491004	Los Angeles	Hager Ave	Bioretention (No Underdrain)	1,033
491004	Los Angeles	Ida Ave	Bioretention (No Underdrain)	1,671
491004	Los Angeles	Lyceum Ave	Bioretention (No Underdrain)	3,617
491004	Los Angeles	Maxella Ave	Bioretention (No Underdrain)	1,923
491004	Los Angeles	Michael Ave	Bioretention (No Underdrain)	2,071
491004	Los Angeles	Mindanao Way	Bioretention (No Underdrain)	95
491004	Los Angeles	Moore St	Bioretention (No Underdrain)	769
491004	Los Angeles	Panama St	Bioretention (No Underdrain)	697
491004	Los Angeles	Redwood Ave	Bioretention (No Underdrain)	2,093
491004	Los Angeles	Rubens Ave	Bioretention (No Underdrain)	1,358
491004	Los Angeles	S Alla Rd	Bioretention (No Underdrain)	29
491004	Los Angeles	S Beethoven St	Bioretention (No Underdrain)	41
491004	Los Angeles	S Tivoli Ave	Bioretention (No Underdrain)	23
491004	Los Angeles	Short Ave	Bioretention (No Underdrain)	1,177
491004	Los Angeles	Sunnyside Ave	Bioretention (No Underdrain)	1,226
491004	Los Angeles	Tivoli Ave	Bioretention (No Underdrain)	2,050
491004	Los Angeles	W Marina Fwy	Bioretention (No Underdrain)	35
491004	Los Angeles	Walsh Ave	Bioretention (No Underdrain)	1,227
491004	Los Angeles	Zanja St	Bioretention (No Underdrain)	494
491005	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	1,258
491006	Los Angeles	(unknown)	Bioretention (No Underdrain)	200
491006	Los Angeles	Alla Rd	Bioretention (No Underdrain)	319
491006	Los Angeles	Alley	Bioretention (No Underdrain)	51
491006	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	1,033
491006	Los Angeles	Fiji Way	Bioretention (No Underdrain)	1,094
491006	Los Angeles	Glencoe Ave	Bioretention (No Underdrain)	2,649
491006	Los Angeles	la Villa Marina	Bioretention (No Underdrain)	850
491006	Los Angeles	Mindanao Way	Bioretention (No Underdrain)	1,955
491006	Los Angeles	Panama St	Bioretention (No Underdrain)	695
491006	Los Angeles	Redwood Ave	Bioretention (No Underdrain)	779
491007	Los Angeles	(unknown)	Bioretention (No Underdrain)	43
491007	Los Angeles	Culver Dr	Bioretention (No Underdrain)	40

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491007	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	65
491007	Los Angeles	Marshall Dr	Bioretention (No Underdrain)	12
491007	Los Angeles	Purdue Ave	Bioretention (No Underdrain)	5
491007	Los Angeles	S Centinela Ave	Bioretention (No Underdrain)	101
491007	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	60
491007	Los Angeles	S Slauson Ave	Bioretention (No Underdrain)	125
491007	Los Angeles	S Sycamore Dr	Bioretention (No Underdrain)	81
491007	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	53
491007	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	157
491008	Los Angeles	Allin St	Bioretention (No Underdrain)	449
491008	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	759
491008	Los Angeles	Havelock Ave	Bioretention (No Underdrain)	578
491008	Los Angeles	Mascagni St	Bioretention (No Underdrain)	1,296
491008	Los Angeles	Milton St	Bioretention (No Underdrain)	1,225
491008	Los Angeles	Patrae St	Bioretention (No Underdrain)	112
491008	Los Angeles	Presnell St	Bioretention (No Underdrain)	450
491008	Los Angeles	Wagner St	Bioretention (No Underdrain)	174
491010	Los Angeles	(unknown)	Bioretention (No Underdrain)	57
491010	Los Angeles	Argan Ave	Bioretention (No Underdrain)	251
491010	Los Angeles	Beloit Ave	Bioretention (No Underdrain)	1,003
491010	Los Angeles	Berryman Ave	Bioretention (No Underdrain)	1,610
491010	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	1,275
491010	Los Angeles	Bradson Pl	Bioretention (No Underdrain)	239
491010	Los Angeles	Coolidge Ave	Bioretention (No Underdrain)	1,834
491010	Los Angeles	Greenlawn Ave	Bioretention (No Underdrain)	578
491010	Los Angeles	Havelock Ave	Bioretention (No Underdrain)	772
491010	Los Angeles	Huntley Ave	Bioretention (No Underdrain)	9
491010	Los Angeles	Imlay Ave	Bioretention (No Underdrain)	1,049
491010	Los Angeles	Lucerne Ave	Bioretention (No Underdrain)	601
491010	Los Angeles	Nina Pl	Bioretention (No Underdrain)	549
491010	Los Angeles	Purdue Ave	Bioretention (No Underdrain)	754
491010	Los Angeles	S Slauson Ave	Bioretention (No Underdrain)	2,257
491010	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	1,823
491010	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	204
491010	Los Angeles	Slauson Ave	Bioretention (No Underdrain)	193
491010	Los Angeles	Sycamore Dr	Bioretention (No Underdrain)	242
491010	Los Angeles	Utopia Ave	Bioretention (No Underdrain)	1,065
491010	Los Angeles	W Tavener Ave	Bioretention (No Underdrain)	30
491010	Los Angeles	Youngworth St	Bioretention (No Underdrain)	423
491012	Los Angeles	(unknown)	Bioretention (No Underdrain)	2,069
491012	Los Angeles	Admiral Ave	Bioretention (No Underdrain)	1,378
491012	Los Angeles	Barbara Ave	Bioretention (No Underdrain)	972
491012	Los Angeles	Boise Ave	Bioretention (No Underdrain)	1,288
491012	Los Angeles	Bonaparte Ave	Bioretention (No Underdrain)	763
491012	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	786
491012	Los Angeles	Caswell Ave	Bioretention (No Underdrain)	2,433
491012	Los Angeles	Chase Ave	Bioretention (No Underdrain)	2,338
491012	Los Angeles	Colonial Ave	Bioretention (No Underdrain)	1,067
491012	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	5,088
491012	Los Angeles	del Ray Blvd	Bioretention (No Underdrain)	99
491012	Los Angeles	Frances Ave	Bioretention (No Underdrain)	1,622
491012	Los Angeles	Gilmore Ave	Bioretention (No Underdrain)	2,237
491012	Los Angeles	Greene Ave	Bioretention (No Underdrain)	2,415
491012	Los Angeles	Harding Ave	Bioretention (No Underdrain)	802
491012	Los Angeles	Havelock Ave	Bioretention (No Underdrain)	240

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491012	Los Angeles	Ida Ave	Bioretention (No Underdrain)	109
491012	Los Angeles	Kelly St	Bioretention (No Underdrain)	75
491012	Los Angeles	Kenyon Ave	Bioretention (No Underdrain)	2,191
491012	Los Angeles	Louise Ave	Bioretention (No Underdrain)	1,531
491012	Los Angeles	Mascagni St	Bioretention (No Underdrain)	1,593
491012	Los Angeles	Matteson Ave	Bioretention (No Underdrain)	2,433
491012	Los Angeles	Maxella Ave	Bioretention (No Underdrain)	151
491012	Los Angeles	May St	Bioretention (No Underdrain)	548
491012	Los Angeles	Mc Cune Ave	Bioretention (No Underdrain)	1,671
491012	Los Angeles	McConnell Ave	Bioretention (No Underdrain)	3,421
491012	Los Angeles	McConnell Blvd	Bioretention (No Underdrain)	42
491012	Los Angeles	McCune Ave	Bioretention (No Underdrain)	1,671
491012	Los Angeles	Meier St	Bioretention (No Underdrain)	223
491012	Los Angeles	Milton St	Bioretention (No Underdrain)	322
491012	Los Angeles	Mitchell Ave	Bioretention (No Underdrain)	2,109
491012	Los Angeles	Moore St	Bioretention (No Underdrain)	3,779
491012	Los Angeles	Neosho Ave	Bioretention (No Underdrain)	2,256
491012	Los Angeles	Pacific Ave	Bioretention (No Underdrain)	2,375
491012	Los Angeles	Panama St	Bioretention (No Underdrain)	115
491012	Los Angeles	Patrae St	Bioretention (No Underdrain)	615
491012	Los Angeles	Presnell St	Bioretention (No Underdrain)	94
491012	Los Angeles	Rosabell St	Bioretention (No Underdrain)	25
491012	Los Angeles	Rubens Ave	Bioretention (No Underdrain)	2,043
491012	Los Angeles	S Westlawn Ave	Bioretention (No Underdrain)	883
491012	Los Angeles	Short Ave	Bioretention (No Underdrain)	2,213
491012	Los Angeles	Stewart Ave	Bioretention (No Underdrain)	2,727
491012	Los Angeles	Verdi St	Bioretention (No Underdrain)	86
491012	Los Angeles	Victoria Ave	Bioretention (No Underdrain)	1,051
491012	Los Angeles	Wade St	Bioretention (No Underdrain)	2,269
491012	Los Angeles	Wagner St	Bioretention (No Underdrain)	1,067
491012	Los Angeles	Walsh Ave	Bioretention (No Underdrain)	2,450
491012	Los Angeles	Wasatch Ave	Bioretention (No Underdrain)	2,990
491012	Los Angeles	Westlawn Ave	Bioretention (No Underdrain)	2,507
491012	Los Angeles	Windward Ave	Bioretention (No Underdrain)	786
491012	Los Angeles	Zanja St	Bioretention (No Underdrain)	807
491013	Los Angeles	(unknown)	Bioretention (No Underdrain)	129
491013	Los Angeles	Allin St	Bioretention (No Underdrain)	270
491013	Los Angeles	Atlantic Ave	Bioretention (No Underdrain)	163
491013	Los Angeles	Avon Way	Bioretention (No Underdrain)	1,269
491013	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	985
491013	Los Angeles	Courtleigh Dr	Bioretention (No Underdrain)	1,245
491013	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	2,257
491013	Los Angeles	East Blvd	Bioretention (No Underdrain)	3,268
491013	Los Angeles	Fire and Svc Rd	Bioretention (No Underdrain)	33
491013	Los Angeles	Havelock Ave	Bioretention (No Underdrain)	214
491013	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	3,697
491013	Los Angeles	Kensington Rd	Bioretention (No Underdrain)	911
491013	Los Angeles	Lindblade St	Bioretention (No Underdrain)	773
491013	Los Angeles	Louise Ave	Bioretention (No Underdrain)	519
491013	Los Angeles	Marcasel Ave	Bioretention (No Underdrain)	3,513
491013	Los Angeles	Marcasel Ct	Bioretention (No Underdrain)	50
491013	Los Angeles	Marshall St	Bioretention (No Underdrain)	895
491013	Los Angeles	N Park Ave	Bioretention (No Underdrain)	1,983
491013	Los Angeles	Pacific Ave	Bioretention (No Underdrain)	1,014
491013	Los Angeles	Rowles Ct	Bioretention (No Underdrain)	50

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491013	Los Angeles	S Park Ave	Bioretention (No Underdrain)	1,454
491013	Los Angeles	Stoner Ave	Bioretention (No Underdrain)	1,223
491013	Los Angeles	W South Park Ave	Bioretention (No Underdrain)	468
491013	Los Angeles	Wagner St	Bioretention (No Underdrain)	899
491013	Los Angeles	Washington Pl	Bioretention (No Underdrain)	959
491018	Los Angeles	(unknown)	Bioretention (No Underdrain)	242
491018	Los Angeles	Allin St	Bioretention (No Underdrain)	2,087
491018	Los Angeles	Barbara Ave	Bioretention (No Underdrain)	170
491018	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	2,340
491018	Los Angeles	Campbell Dr	Bioretention (No Underdrain)	2,319
491018	Los Angeles	Caswell Ave	Bioretention (No Underdrain)	160
491018	Los Angeles	Charnock Rd	Bioretention (No Underdrain)	1,270
491018	Los Angeles	Colonial Ave	Bioretention (No Underdrain)	606
491018	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	2,830
491018	Los Angeles	Culver Dr	Bioretention (No Underdrain)	366
491018	Los Angeles	del Ray Blvd	Bioretention (No Underdrain)	40
491018	Los Angeles	Farias Ave	Bioretention (No Underdrain)	295
491018	Los Angeles	Gilmore Ave	Bioretention (No Underdrain)	1,181
491018	Los Angeles	Grand View Blvd	Bioretention (No Underdrain)	6,102
491018	Los Angeles	Greene Ave	Bioretention (No Underdrain)	1,184
491018	Los Angeles	Harding Ave	Bioretention (No Underdrain)	53
491018	Los Angeles	Havelock Ave	Bioretention (No Underdrain)	2,101
491018	Los Angeles	Herbert St	Bioretention (No Underdrain)	860
491018	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	4,430
491018	Los Angeles	Keeshen Dr	Bioretention (No Underdrain)	1,125
491018	Los Angeles	Lamanda St	Bioretention (No Underdrain)	590
491018	Los Angeles	Lindblade Dr	Bioretention (No Underdrain)	3,590
491018	Los Angeles	Louise Ave	Bioretention (No Underdrain)	1,585
491018	Los Angeles	Marshall Dr	Bioretention (No Underdrain)	1,799
491018	Los Angeles	Marshall St	Bioretention (No Underdrain)	1,892
491018	Los Angeles	Matteson Ave	Bioretention (No Underdrain)	179
491018	Los Angeles	Mc Cune Ave	Bioretention (No Underdrain)	675
491018	Los Angeles	McCune Ave	Bioretention (No Underdrain)	675
491018	Los Angeles	Milton St	Bioretention (No Underdrain)	395
491018	Los Angeles	Mitchell Ave	Bioretention (No Underdrain)	1,865
491018	Los Angeles	Modjeska Pl	Bioretention (No Underdrain)	308
491018	Los Angeles	Mountain View Ave	Bioretention (No Underdrain)	1,074
491018	Los Angeles	Ocean View Ave	Bioretention (No Underdrain)	2,439
491018	Los Angeles	Pacific Ave	Bioretention (No Underdrain)	1,886
491018	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	1,108
491018	Los Angeles	Preston Way	Bioretention (No Underdrain)	1
491018	Los Angeles	Rose Ave	Bioretention (No Underdrain)	66
491018	Los Angeles	S Barrington Ave	Bioretention (No Underdrain)	1,429
491018	Los Angeles	S Bundy Dr	Bioretention (No Underdrain)	4
491018	Los Angeles	S Centinela Ave	Bioretention (No Underdrain)	10,435
491018	Los Angeles	Sanford Dr	Bioretention (No Underdrain)	726
491018	Los Angeles	Short Ave	Bioretention (No Underdrain)	50
491018	Los Angeles	Stanwood Dr	Bioretention (No Underdrain)	358
491018	Los Angeles	Stewart Ave	Bioretention (No Underdrain)	147
491018	Los Angeles	Stoner Ave	Bioretention (No Underdrain)	317
491018	Los Angeles	Sylvester St	Bioretention (No Underdrain)	491
491018	Los Angeles	Verdi St	Bioretention (No Underdrain)	412
491018	Los Angeles	Victoria Ave	Bioretention (No Underdrain)	2,404
491018	Los Angeles	W Wagner St	Bioretention (No Underdrain)	154
491018	Los Angeles	Wagner St	Bioretention (No Underdrain)	909

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491018	Los Angeles	Walsh Ave	Bioretention (No Underdrain)	43
491018	Los Angeles	Washington Pl	Bioretention (No Underdrain)	1,171
491018	Los Angeles	Westlawn Ave	Bioretention (No Underdrain)	1,181
491018	Los Angeles	Westminster Ave	Bioretention (No Underdrain)	204
491018	Los Angeles	Windward Ave	Bioretention (No Underdrain)	642
491018	Los Angeles	Woodbine St	Bioretention (No Underdrain)	193
491018	Los Angeles	Woodgreen St	Bioretention (No Underdrain)	202
491019	Los Angeles	Lucerne Ave	Bioretention (No Underdrain)	25
491019	Los Angeles	Saint Nicholas Ave	Bioretention (No Underdrain)	427
491020	Los Angeles	(unknown)	Bioretention (No Underdrain)	149
491020	Los Angeles	Biona Dr	Bioretention (No Underdrain)	1,117
491020	Los Angeles	Bledsoe Ave	Bioretention (No Underdrain)	38
491020	Los Angeles	Butler Ave	Bioretention (No Underdrain)	199
491020	Los Angeles	Charnock Rd	Bioretention (No Underdrain)	3,847
491020	Los Angeles	Corinth Ave	Bioretention (No Underdrain)	1,018
491020	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	110
491020	Los Angeles	Dufresne Ct	Bioretention (No Underdrain)	420
491020	Los Angeles	Ellenda Ave	Bioretention (No Underdrain)	470
491020	Los Angeles	Ellenda Pl	Bioretention (No Underdrain)	212
491020	Los Angeles	Francis Pl	Bioretention (No Underdrain)	479
491020	Los Angeles	Glendon Ave	Bioretention (No Underdrain)	5,024
491020	Los Angeles	Greenfield Ave	Bioretention (No Underdrain)	4,170
491020	Los Angeles	Greenlawn Ave	Bioretention (No Underdrain)	865
491020	Los Angeles	Harter Ave	Bioretention (No Underdrain)	0
491020	Los Angeles	Kelton Ave	Bioretention (No Underdrain)	4,595
491020	Los Angeles	Kingsland St	Bioretention (No Underdrain)	568
491020	Los Angeles	Las Flores Ct	Bioretention (No Underdrain)	114
491020	Los Angeles	Lawler St	Bioretention (No Underdrain)	1,038
491020	Los Angeles	Lucerne Ave	Bioretention (No Underdrain)	834
491020	Los Angeles	Luy Rd	Bioretention (No Underdrain)	20
491020	Los Angeles	Malcolm Ave	Bioretention (No Underdrain)	1,856
491020	Los Angeles	Mc Cune Ave	Bioretention (No Underdrain)	333
491020	Los Angeles	McCune Ave	Bioretention (No Underdrain)	805
491020	Los Angeles	Midvale Ave	Bioretention (No Underdrain)	3,722
491020	Los Angeles	Military Ave	Bioretention (No Underdrain)	3,365
491020	Los Angeles	National Blvd	Bioretention (No Underdrain)	1,026
491020	Los Angeles	National Pl	Bioretention (No Underdrain)	893
491020	Los Angeles	Nutmeg Ave	Bioretention (No Underdrain)	241
491020	Los Angeles	Overland Ave	Bioretention (No Underdrain)	476
491020	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	3,824
491020	Los Angeles	Purdue Ave	Bioretention (No Underdrain)	254
491020	Los Angeles	Queensland St	Bioretention (No Underdrain)	1,775
491020	Los Angeles	Regent St	Bioretention (No Underdrain)	1,696
491020	Los Angeles	Rose Ave	Bioretention (No Underdrain)	2,878
491020	Los Angeles	S Bentley Ave	Bioretention (No Underdrain)	2,873
491020	Los Angeles	S Overland Ave	Bioretention (No Underdrain)	175
491020	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	2,858
491020	Los Angeles	Saint Nicholas Ave	Bioretention (No Underdrain)	253
491020	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	740
491020	Los Angeles	Selby Ave	Bioretention (No Underdrain)	869
491020	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	746
491020	Los Angeles	Tabor St	Bioretention (No Underdrain)	1,033
491020	Los Angeles	Tenino Ave	Bioretention (No Underdrain)	212
491020	Los Angeles	Tilden Ave	Bioretention (No Underdrain)	3,387
491020	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	4,261

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491020	Los Angeles	Victoria Ave	Bioretention (No Underdrain)	149
491020	Los Angeles	Washington Pl	Bioretention (No Underdrain)	250
491020	Los Angeles	Westminster Ave	Bioretention (No Underdrain)	1,153
491020	Los Angeles	Westwood Blvd	Bioretention (No Underdrain)	2,188
491020	Los Angeles	Woodbine St	Bioretention (No Underdrain)	1,600
491022	Los Angeles	(unknown)	Bioretention (No Underdrain)	584
491022	Los Angeles	Bannockburn Dr	Bioretention (No Underdrain)	1,037
491022	Los Angeles	Bridlevale Dr	Bioretention (No Underdrain)	638
491022	Los Angeles	Cavendish Dr	Bioretention (No Underdrain)	2,129
491022	Los Angeles	Charnock Rd	Bioretention (No Underdrain)	201
491022	Los Angeles	Cheviot Dr	Bioretention (No Underdrain)	2,173
491022	Los Angeles	Cheviot Vista Pl	Bioretention (No Underdrain)	552
491022	Los Angeles	Clarkson Rd	Bioretention (No Underdrain)	452
491022	Los Angeles	Club Dr	Bioretention (No Underdrain)	746
491022	Los Angeles	Cresta Dr	Bioretention (No Underdrain)	7
491022	Los Angeles	Dunleer Dr	Bioretention (No Underdrain)	3,189
491022	Los Angeles	Dunleer Pl	Bioretention (No Underdrain)	412
491022	Los Angeles	Earlmar Dr	Bioretention (No Underdrain)	2,510
491022	Los Angeles	Edith St	Bioretention (No Underdrain)	445
491022	Los Angeles	Empire Dr	Bioretention (No Underdrain)	918
491022	Los Angeles	Forrester Dr	Bioretention (No Underdrain)	1,179
491022	Los Angeles	Francis Pl	Bioretention (No Underdrain)	202
491022	Los Angeles	Gilmerton Ave	Bioretention (No Underdrain)	825
491022	Los Angeles	Glenbarr Ave	Bioretention (No Underdrain)	210
491022	Los Angeles	Goldwyn Ter	Bioretention (No Underdrain)	559
491022	Los Angeles	Haddington Dr	Bioretention (No Underdrain)	1,818
491022	Los Angeles	Irene St	Bioretention (No Underdrain)	447
491022	Los Angeles	Ivy Glen Way	Bioretention (No Underdrain)	319
491022	Los Angeles	Jasmine Ave	Bioretention (No Underdrain)	3,492
491022	Los Angeles	Keystone Ave	Bioretention (No Underdrain)	4,219
491022	Los Angeles	Kilrenney Ave	Bioretention (No Underdrain)	379
491022	Los Angeles	Kincardine Ave	Bioretention (No Underdrain)	537
491022	Los Angeles	Lawler St	Bioretention (No Underdrain)	199
491022	Los Angeles	Lorenzo Dr	Bioretention (No Underdrain)	206
491022	Los Angeles	Lovelane Pl	Bioretention (No Underdrain)	274
491022	Los Angeles	Manning Ave	Bioretention (No Underdrain)	2,486
491022	Los Angeles	McCune Ave	Bioretention (No Underdrain)	203
491022	Los Angeles	Mentone Ave	Bioretention (No Underdrain)	4,194
491022	Los Angeles	Motor Ave	Bioretention (No Underdrain)	9,311
491022	Los Angeles	Motor Pl	Bioretention (No Underdrain)	251
491022	Los Angeles	National Blvd	Bioretention (No Underdrain)	2,918
491022	Los Angeles	Northvale Rd	Bioretention (No Underdrain)	1,208
491022	Los Angeles	Old Motor Ave	Bioretention (No Underdrain)	85
491022	Los Angeles	Overland Ave	Bioretention (No Underdrain)	4,990
491022	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	2,400
491022	Los Angeles	Patricia Ave	Bioretention (No Underdrain)	2,424
491022	Los Angeles	Philo St	Bioretention (No Underdrain)	340
491022	Los Angeles	Queensbury Dr	Bioretention (No Underdrain)	2,251
491022	Los Angeles	Regent St	Bioretention (No Underdrain)	2,178
491022	Los Angeles	Rose Ave	Bioretention (No Underdrain)	924
491022	Los Angeles	Rosbury Pl	Bioretention (No Underdrain)	1,028
491022	Los Angeles	Tabor St	Bioretention (No Underdrain)	2,445
491022	Los Angeles	Valparaiso St	Bioretention (No Underdrain)	500
491022	Los Angeles	Vinton Ave	Bioretention (No Underdrain)	3,871
491022	Los Angeles	Walavista Rd	Bioretention (No Underdrain)	209

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491022	Los Angeles	Westminster Ave	Bioretention (No Underdrain)	200
491022	Los Angeles	Wicklow Rd	Bioretention (No Underdrain)	387
491022	Los Angeles	Woodbine St	Bioretention (No Underdrain)	3,532
491023	Los Angeles	(unknown)	Bioretention (No Underdrain)	21
491023	Los Angeles	Aneta St	Bioretention (No Underdrain)	10
491023	Los Angeles	Babette Ave	Bioretention (No Underdrain)	164
491023	Los Angeles	Beatrice St	Bioretention (No Underdrain)	1,090
491023	Los Angeles	Beethoven St	Bioretention (No Underdrain)	954
491023	Los Angeles	Bray St	Bioretention (No Underdrain)	860
491023	Los Angeles	Coral Tree Pl	Bioretention (No Underdrain)	864
491023	Los Angeles	Edsel Ave	Bioretention (No Underdrain)	160
491023	Los Angeles	Emporia Ave	Bioretention (No Underdrain)	284
491023	Los Angeles	Etheldo Ave	Bioretention (No Underdrain)	758
491023	Los Angeles	Hammack St	Bioretention (No Underdrain)	70
491023	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	619
491023	Los Angeles	Jandy Pl	Bioretention (No Underdrain)	376
491023	Los Angeles	Keli Ct	Bioretention (No Underdrain)	84
491023	Los Angeles	Lindblade Dr	Bioretention (No Underdrain)	334
491023	Los Angeles	McConnell Ave	Bioretention (No Underdrain)	705
491023	Los Angeles	McDonald St	Bioretention (No Underdrain)	1,616
491023	Los Angeles	Mesmer Ave	Bioretention (No Underdrain)	1,535
491023	Los Angeles	Port Rd	Bioretention (No Underdrain)	420
491023	Los Angeles	Randall St	Bioretention (No Underdrain)	288
491023	Los Angeles	Rosy Cir	Bioretention (No Underdrain)	1,557
491023	Los Angeles	Russo St	Bioretention (No Underdrain)	406
491023	Los Angeles	S Centinela Ave	Bioretention (No Underdrain)	17
491023	Los Angeles	Sanford St	Bioretention (No Underdrain)	3,061
491023	Los Angeles	W Port Rd	Bioretention (No Underdrain)	87
491023	Los Angeles	W Sanford St	Bioretention (No Underdrain)	149
491023	Los Angeles	Weir St	Bioretention (No Underdrain)	1,078
491023	Los Angeles	Westlawn Ave	Bioretention (No Underdrain)	325
491024	Los Angeles	S Sycamore Dr	Bioretention (No Underdrain)	44
491026	Los Angeles	(unknown)	Bioretention (No Underdrain)	649
491026	Los Angeles	Airport Blvd	Bioretention (No Underdrain)	179
491026	Los Angeles	Alverstone Ave	Bioretention (No Underdrain)	1,937
491026	Los Angeles	Arizona Ave	Bioretention (No Underdrain)	2,034
491026	Los Angeles	Arizona Cir	Bioretention (No Underdrain)	1,079
491026	Los Angeles	Arizona Pl	Bioretention (No Underdrain)	571
491026	Los Angeles	Center Dr	Bioretention (No Underdrain)	420
491026	Los Angeles	Center Dr W	Bioretention (No Underdrain)	520
491026	Los Angeles	Dunfield Ave	Bioretention (No Underdrain)	1,767
491026	Los Angeles	el Manor Ave	Bioretention (No Underdrain)	1,517
491026	Los Angeles	Firebrand St	Bioretention (No Underdrain)	117
491026	Los Angeles	Henefer Ave	Bioretention (No Underdrain)	196
491026	Los Angeles	Jefferson Blvd	Bioretention (No Underdrain)	146
491026	Los Angeles	Kentwood Ave	Bioretention (No Underdrain)	2,521
491026	Los Angeles	Kentwood Bluffs Dr	Bioretention (No Underdrain)	1,424
491026	Los Angeles	McCool Ave	Bioretention (No Underdrain)	1,313
491026	Los Angeles	Nancy St	Bioretention (No Underdrain)	1,471
491026	Los Angeles	Naylor Ave	Bioretention (No Underdrain)	7
491026	Los Angeles	Oglesby Ave	Bioretention (No Underdrain)	1,838
491026	Los Angeles	Park Ter	Bioretention (No Underdrain)	515
491026	Los Angeles	Piper Ave	Bioretention (No Underdrain)	72
491026	Los Angeles	Riggs Pl	Bioretention (No Underdrain)	2,020
491026	Los Angeles	S Center Dr W	Bioretention (No Underdrain)	504

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491026	Los Angeles	S Park Ter	Bioretention (No Underdrain)	284
491026	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	2,728
491026	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	2,728
491026	Los Angeles	W 74th St	Bioretention (No Underdrain)	3,580
491026	Los Angeles	W 77th St	Bioretention (No Underdrain)	97
491026	Los Angeles	W Center Dr	Bioretention (No Underdrain)	326
491026	Los Angeles	Wynkoop St	Bioretention (No Underdrain)	57
491028	Los Angeles	(unknown)	Bioretention (No Underdrain)	930
491028	Los Angeles	Acacia St	Bioretention (No Underdrain)	547
491028	Los Angeles	Alvern Cir	Bioretention (No Underdrain)	893
491028	Los Angeles	Alvern St	Bioretention (No Underdrain)	1,056
491028	Los Angeles	Aly	Bioretention (No Underdrain)	26
491028	Los Angeles	Bradley Pl	Bioretention (No Underdrain)	677
491028	Los Angeles	Centinela Ave	Bioretention (No Underdrain)	494
491028	Los Angeles	Damask Ave	Bioretention (No Underdrain)	348
491028	Los Angeles	Fairview Blvd	Bioretention (No Underdrain)	478
491028	Los Angeles	Flight Ave	Bioretention (No Underdrain)	1,656
491028	Los Angeles	Flores Ave	Bioretention (No Underdrain)	372
491028	Los Angeles	Glasgow Ave	Bioretention (No Underdrain)	1,301
491028	Los Angeles	Glasgow Ct	Bioretention (No Underdrain)	264
491028	Los Angeles	Glasgow Way	Bioretention (No Underdrain)	388
491028	Los Angeles	Kittyhawk Ave	Bioretention (No Underdrain)	1,663
491028	Los Angeles	Knowlton Pl	Bioretention (No Underdrain)	1,357
491028	Los Angeles	Knowlton St	Bioretention (No Underdrain)	1,039
491028	Los Angeles	la Cienega Westway St	Bioretention (No Underdrain)	175
491028	Los Angeles	la Tijera Blvd	Bioretention (No Underdrain)	3,785
491028	Los Angeles	Midfield Ave	Bioretention (No Underdrain)	163
491028	Los Angeles	Morley Ave	Bioretention (No Underdrain)	343
491028	Los Angeles	Mosley Ave	Bioretention (No Underdrain)	346
491028	Los Angeles	Osage Ave	Bioretention (No Underdrain)	310
491028	Los Angeles	Piper Ave	Bioretention (No Underdrain)	137
491028	Los Angeles	Ramsgate Ave	Bioretention (No Underdrain)	1,320
491028	Los Angeles	Ramsgate Pl	Bioretention (No Underdrain)	467
491028	Los Angeles	S Croft Ave	Bioretention (No Underdrain)	326
491028	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	512
491028	Los Angeles	S Kings Rd	Bioretention (No Underdrain)	377
491028	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	6,613
491028	Los Angeles	S la Tijera Blvd	Bioretention (No Underdrain)	4,257
491028	Los Angeles	Thornburn St	Bioretention (No Underdrain)	3,213
491028	Los Angeles	W 63rd St	Bioretention (No Underdrain)	1,707
491028	Los Angeles	W 64th St	Bioretention (No Underdrain)	1,360
491028	Los Angeles	W 74th St	Bioretention (No Underdrain)	1,153
491028	Los Angeles	W Centinela Ave	Bioretention (No Underdrain)	502
491028	Los Angeles	W Fairview Blvd	Bioretention (No Underdrain)	23
491029	Los Angeles	Abernathy Dr	Bioretention (No Underdrain)	1,912
491029	Los Angeles	Abigail Pl	Bioretention (No Underdrain)	116
491029	Los Angeles	Airlane Ave	Bioretention (No Underdrain)	2,911
491029	Los Angeles	Airport Blvd	Bioretention (No Underdrain)	5,559
491029	Los Angeles	Alverstone Ave	Bioretention (No Underdrain)	2,134
491029	Los Angeles	Arizona Ave	Bioretention (No Underdrain)	652
491029	Los Angeles	Barnsley Ave	Bioretention (No Underdrain)	1,864
491029	Los Angeles	Belford Ave	Bioretention (No Underdrain)	2,249
491029	Los Angeles	Bellanca Ave	Bioretention (No Underdrain)	67
491029	Los Angeles	Benjamin Ave	Bioretention (No Underdrain)	1,031
491029	Los Angeles	Bleriot Ave	Bioretention (No Underdrain)	2,720

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491029	Los Angeles	Boeing Ave	Bioretention (No Underdrain)	2,618
491029	Los Angeles	Boeing Pl	Bioretention (No Underdrain)	289
491029	Los Angeles	Breen Ave	Bioretention (No Underdrain)	1,401
491029	Los Angeles	Compass Dr	Bioretention (No Underdrain)	791
491029	Los Angeles	Croydon Ave	Bioretention (No Underdrain)	2,840
491029	Los Angeles	Dunfield Ave	Bioretention (No Underdrain)	39
491029	Los Angeles	el Manor Ave	Bioretention (No Underdrain)	508
491029	Los Angeles	Flight Ave	Bioretention (No Underdrain)	4,964
491029	Los Angeles	Flight Pl	Bioretention (No Underdrain)	1,194
491029	Los Angeles	Glider Ave	Bioretention (No Underdrain)	1,396
491029	Los Angeles	Goddard Ave	Bioretention (No Underdrain)	1,508
491029	Los Angeles	Grimsby Ave	Bioretention (No Underdrain)	657
491029	Los Angeles	Handley Ave	Bioretention (No Underdrain)	1,088
491029	Los Angeles	Hindry Ave	Bioretention (No Underdrain)	1,753
491029	Los Angeles	Hosford Ave	Bioretention (No Underdrain)	7
491029	Los Angeles	Isis Ave	Bioretention (No Underdrain)	2,097
491029	Los Angeles	Kentwood Ave	Bioretention (No Underdrain)	845
491029	Los Angeles	Kittyhawk Ave	Bioretention (No Underdrain)	3,548
491029	Los Angeles	la Tijera Blvd	Bioretention (No Underdrain)	5,290
491029	Los Angeles	Lilienthal Ave	Bioretention (No Underdrain)	739
491029	Los Angeles	Midfield Ave	Bioretention (No Underdrain)	2,899
491029	Los Angeles	Naylor Ave	Bioretention (No Underdrain)	3,622
491029	Los Angeles	Osage Ave	Bioretention (No Underdrain)	3,653
491029	Los Angeles	Piper Ave	Bioretention (No Underdrain)	904
491029	Los Angeles	Piper Pl	Bioretention (No Underdrain)	158
491029	Los Angeles	Portal Ave	Bioretention (No Underdrain)	308
491029	Los Angeles	Ramsgate Ave	Bioretention (No Underdrain)	2,827
491029	Los Angeles	Reading Ave	Bioretention (No Underdrain)	2,586
491029	Los Angeles	S la Tijera Blvd	Bioretention (No Underdrain)	5,426
491029	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	2,342
491029	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	2,342
491029	Los Angeles	Stetson Ave	Bioretention (No Underdrain)	275
491029	Los Angeles	Toland Ave	Bioretention (No Underdrain)	1,758
491029	Los Angeles	Truxton Ave	Bioretention (No Underdrain)	3,652
491029	Los Angeles	Vicksburg Ave	Bioretention (No Underdrain)	2,057
491029	Los Angeles	W 74th St	Bioretention (No Underdrain)	490
491029	Los Angeles	W 75th Pl	Bioretention (No Underdrain)	875
491029	Los Angeles	W 75th St	Bioretention (No Underdrain)	4,117
491029	Los Angeles	W 76th Pl	Bioretention (No Underdrain)	310
491029	Los Angeles	W 76th St	Bioretention (No Underdrain)	6,412
491029	Los Angeles	W 77th Pl	Bioretention (No Underdrain)	2,349
491029	Los Angeles	W 77th St	Bioretention (No Underdrain)	5,277
491029	Los Angeles	W 78th Pl	Bioretention (No Underdrain)	1,031
491029	Los Angeles	W 78th St	Bioretention (No Underdrain)	7,144
491029	Los Angeles	W 79th Pl	Bioretention (No Underdrain)	155
491029	Los Angeles	W 79th St	Bioretention (No Underdrain)	7,148
491029	Los Angeles	W 80th Pl	Bioretention (No Underdrain)	75
491029	Los Angeles	W 80th St	Bioretention (No Underdrain)	1,819
491029	Los Angeles	W 82nd St	Bioretention (No Underdrain)	4,237
491029	Los Angeles	W 83rd Pl	Bioretention (No Underdrain)	1,545
491029	Los Angeles	W 83rd St	Bioretention (No Underdrain)	6,273
491029	Los Angeles	W 84th St	Bioretention (No Underdrain)	386
491029	Los Angeles	W 85th Pl	Bioretention (No Underdrain)	2,653
491029	Los Angeles	Wiley Post Ave	Bioretention (No Underdrain)	1,045
491029	Los Angeles	Winsford Ave	Bioretention (No Underdrain)	2,478

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491029	Los Angeles	Wynkoop St	Bioretention (No Underdrain)	119
491029	Los Angeles	Yorktown Ave	Bioretention (No Underdrain)	1,608
491029	Los Angeles	Yorktown Pl	Bioretention (No Underdrain)	517
491030	Los Angeles	(unknown)	Bioretention (No Underdrain)	872
491030	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	701
491030	Los Angeles	Alviso Ave	Bioretention (No Underdrain)	2,800
491030	Los Angeles	Angeles Vista Blvd	Bioretention (No Underdrain)	178
491030	Los Angeles	Buckler Ave	Bioretention (No Underdrain)	2,637
491030	Los Angeles	Condon Ave	Bioretention (No Underdrain)	500
491030	Los Angeles	Deane Ave	Bioretention (No Underdrain)	1,137
491030	Los Angeles	E 65th St	Bioretention (No Underdrain)	30
491030	Los Angeles	E 66th St	Bioretention (No Underdrain)	30
491030	Los Angeles	E 67th St	Bioretention (No Underdrain)	30
491030	Los Angeles	E 68th St	Bioretention (No Underdrain)	30
491030	Los Angeles	E Hyde Park Blvd	Bioretention (No Underdrain)	28
491030	Los Angeles	Edgemar Ave	Bioretention (No Underdrain)	1,548
491030	Los Angeles	Eileen Ave	Bioretention (No Underdrain)	1,315
491030	Los Angeles	Fair Pl	Bioretention (No Underdrain)	289
491030	Los Angeles	Hyde Park Blvd	Bioretention (No Underdrain)	7
491030	Los Angeles	Keniston Ave	Bioretention (No Underdrain)	2,452
491030	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	469
491030	Los Angeles	Long St	Bioretention (No Underdrain)	1,317
491030	Los Angeles	Mecham Way	Bioretention (No Underdrain)	1,355
491030	Los Angeles	Midfield Ave	Bioretention (No Underdrain)	174
491030	Los Angeles	N Long St	Bioretention (No Underdrain)	20
491030	Los Angeles	Overhill Dr	Bioretention (No Underdrain)	445
491030	Los Angeles	S Harcourt Ave	Bioretention (No Underdrain)	1,316
491030	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	469
491030	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	94
491030	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	2,453
491030	Los Angeles	S Verdun Ave	Bioretention (No Underdrain)	2,841
491030	Los Angeles	Thornburn St	Bioretention (No Underdrain)	33
491030	Los Angeles	Valley Ridge Ave	Bioretention (No Underdrain)	170
491030	Los Angeles	W 58th Pl	Bioretention (No Underdrain)	4,994
491030	Los Angeles	W 59th Pl	Bioretention (No Underdrain)	4,785
491030	Los Angeles	W 59th St	Bioretention (No Underdrain)	4,806
491030	Los Angeles	W 60th St	Bioretention (No Underdrain)	4,510
491030	Los Angeles	W 61st St	Bioretention (No Underdrain)	2,759
491030	Los Angeles	W 62nd Pl	Bioretention (No Underdrain)	438
491030	Los Angeles	W 62nd St	Bioretention (No Underdrain)	2,752
491030	Los Angeles	W 63rd St	Bioretention (No Underdrain)	4,400
491030	Los Angeles	W 64th Pl	Bioretention (No Underdrain)	6
491030	Los Angeles	W 64th St	Bioretention (No Underdrain)	3,205
491030	Los Angeles	W 67th St	Bioretention (No Underdrain)	100
491030	Los Angeles	W Slauson Ave	Bioretention (No Underdrain)	2,495
491030	Los Angeles	West Blvd	Bioretention (No Underdrain)	4,134
491030	Los Angeles	Wexham Way	Bioretention (No Underdrain)	0
491031	Los Angeles	(unknown)	Bioretention (No Underdrain)	410
491031	Los Angeles	Allin St	Bioretention (No Underdrain)	1,371
491031	Los Angeles	Barman Ave	Bioretention (No Underdrain)	1,436
491031	Los Angeles	Barman St	Bioretention (No Underdrain)	1,436
491031	Los Angeles	Barry Ave	Bioretention (No Underdrain)	3,029
491031	Los Angeles	Berryman Ave	Bioretention (No Underdrain)	4,211
491031	Los Angeles	Biona Dr	Bioretention (No Underdrain)	425
491031	Los Angeles	Bledsoe Ave	Bioretention (No Underdrain)	1,661

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491031	Los Angeles	Braddock Dr	Bioretention (No Underdrain)	779
491031	Los Angeles	Butler Ave	Bioretention (No Underdrain)	1,360
491031	Los Angeles	Charnock Rd	Bioretention (No Underdrain)	3,969
491031	Los Angeles	Coolidge Ave	Bioretention (No Underdrain)	3,517
491031	Los Angeles	Corinth Ave	Bioretention (No Underdrain)	2,676
491031	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	3,325
491031	Los Angeles	Dawes Ave	Bioretention (No Underdrain)	648
491031	Los Angeles	East Blvd	Bioretention (No Underdrain)	199
491031	Los Angeles	Federal Ave	Bioretention (No Underdrain)	2,371
491031	Los Angeles	Francis Pl	Bioretention (No Underdrain)	471
491031	Los Angeles	Grand View Blvd	Bioretention (No Underdrain)	757
491031	Los Angeles	Granville Ave	Bioretention (No Underdrain)	895
491031	Los Angeles	Herbert St	Bioretention (No Underdrain)	30
491031	Los Angeles	Indianapolis St	Bioretention (No Underdrain)	530
491031	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	2,809
491031	Los Angeles	Keeshen Dr	Bioretention (No Underdrain)	939
491031	Los Angeles	Lawler St	Bioretention (No Underdrain)	1,474
491031	Los Angeles	Lindblade Pl	Bioretention (No Underdrain)	145
491031	Los Angeles	Lindblade St	Bioretention (No Underdrain)	885
491031	Los Angeles	Marco Pl	Bioretention (No Underdrain)	127
491031	Los Angeles	Marionwood Dr	Bioretention (No Underdrain)	1,569
491031	Los Angeles	Matteson Ave	Bioretention (No Underdrain)	1,414
491031	Los Angeles	Mc Cune Ave	Bioretention (No Underdrain)	317
491031	Los Angeles	McCune Ave	Bioretention (No Underdrain)	317
491031	Los Angeles	McLaughlin Ave	Bioretention (No Underdrain)	6,859
491031	Los Angeles	Minerva Ave	Bioretention (No Underdrain)	1,708
491031	Los Angeles	Mountain View Ave	Bioretention (No Underdrain)	2,289
491031	Los Angeles	Nutmeg Ave	Bioretention (No Underdrain)	216
491031	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	2,135
491031	Los Angeles	Purdue Ave	Bioretention (No Underdrain)	3,552
491031	Los Angeles	Regent St	Bioretention (No Underdrain)	382
491031	Los Angeles	S Barrington Ave	Bioretention (No Underdrain)	1,189
491031	Los Angeles	S Barry Ave	Bioretention (No Underdrain)	807
491031	Los Angeles	S Corinth Ave	Bioretention (No Underdrain)	27
491031	Los Angeles	S Purdue Ave	Bioretention (No Underdrain)	27
491031	Los Angeles	S Slauson Ave	Bioretention (No Underdrain)	2,072
491031	Los Angeles	Saint Susan Pl	Bioretention (No Underdrain)	372
491031	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	2,123
491031	Los Angeles	Slauson Ave	Bioretention (No Underdrain)	1,006
491031	Los Angeles	Stoner Ave	Bioretention (No Underdrain)	2,798
491031	Los Angeles	Tabor St	Bioretention (No Underdrain)	762
491031	Los Angeles	Tenino Ave	Bioretention (No Underdrain)	182
491031	Los Angeles	Tuller Ave	Bioretention (No Underdrain)	342
491031	Los Angeles	Victoria Ave	Bioretention (No Underdrain)	2,460
491031	Los Angeles	Vienna Way	Bioretention (No Underdrain)	135
491031	Los Angeles	W Barman St	Bioretention (No Underdrain)	40
491031	Los Angeles	W Charnock Rd	Bioretention (No Underdrain)	1,086
491031	Los Angeles	Wagner St	Bioretention (No Underdrain)	392
491031	Los Angeles	Washington Pl	Bioretention (No Underdrain)	1,467
491031	Los Angeles	Westminster Ave	Bioretention (No Underdrain)	3,208
491031	Los Angeles	Westminster Pl	Bioretention (No Underdrain)	283
491031	Los Angeles	Woodbine St	Bioretention (No Underdrain)	1,386
491032	Los Angeles	(unknown)	Bioretention (No Underdrain)	4,718
491032	Los Angeles	Allaseba Dr	Bioretention (No Underdrain)	508
491032	Los Angeles	Amherst Ave	Bioretention (No Underdrain)	6,148

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491032	Los Angeles	Armcast Ave	Bioretention (No Underdrain)	8,639
491032	Los Angeles	Artemis Pl	Bioretention (No Underdrain)	298
491032	Los Angeles	Ayres Ave	Bioretention (No Underdrain)	1,868
491032	Los Angeles	Ayrshire Rd	Bioretention (No Underdrain)	616
491032	Los Angeles	Barrington Ct	Bioretention (No Underdrain)	395
491032	Los Angeles	Barrington Walk	Bioretention (No Underdrain)	91
491032	Los Angeles	Barry Ave	Bioretention (No Underdrain)	12,385
491032	Los Angeles	Beloit Ave	Bioretention (No Underdrain)	2,572
491032	Los Angeles	Beyond Way	Bioretention (No Underdrain)	56
491032	Los Angeles	Bonsall Ave	Bioretention (No Underdrain)	30
491032	Los Angeles	Bringham Ave	Bioretention (No Underdrain)	1,102
491032	Los Angeles	Broadway	Bioretention (No Underdrain)	30
491032	Los Angeles	Broadway St	Bioretention (No Underdrain)	30
491032	Los Angeles	Brockton Ave	Bioretention (No Underdrain)	4,352
491032	Los Angeles	Brookhaven Ave	Bioretention (No Underdrain)	3,227
491032	Los Angeles	Burkshire Ave	Bioretention (No Underdrain)	1,321
491032	Los Angeles	Butler Ave	Bioretention (No Underdrain)	12,155
491032	Los Angeles	Ceilhunt Ave	Bioretention (No Underdrain)	996
491032	Los Angeles	Centinela Ave	Bioretention (No Underdrain)	3,576
491032	Los Angeles	Chaparral St	Bioretention (No Underdrain)	5
491032	Los Angeles	Chayote St	Bioretention (No Underdrain)	294
491032	Los Angeles	Chenault St	Bioretention (No Underdrain)	971
491032	Los Angeles	Clarkson Rd	Bioretention (No Underdrain)	2,483
491032	Los Angeles	Clover Ave	Bioretention (No Underdrain)	2,707
491032	Los Angeles	Colbert Ave	Bioretention (No Underdrain)	1,265
491032	Los Angeles	Colbert St	Bioretention (No Underdrain)	1,265
491032	Los Angeles	Colby Ave	Bioretention (No Underdrain)	10,723
491032	Los Angeles	Colorado Ave	Bioretention (No Underdrain)	36
491032	Los Angeles	Coolidge Ave	Bioretention (No Underdrain)	4,171
491032	Los Angeles	Coolidge Pl	Bioretention (No Underdrain)	267
491032	Los Angeles	Corinth Ave	Bioretention (No Underdrain)	9,050
491032	Los Angeles	Cotner Ave	Bioretention (No Underdrain)	2,864
491032	Los Angeles	Craigview Ave	Bioretention (No Underdrain)	145
491032	Los Angeles	Crescenda St	Bioretention (No Underdrain)	17
491032	Los Angeles	Dahlgren Ave	Bioretention (No Underdrain)	297
491032	Los Angeles	Darlington Ave	Bioretention (No Underdrain)	2,996
491032	Los Angeles	Delaware Ave	Bioretention (No Underdrain)	30
491032	Los Angeles	Dewey St	Bioretention (No Underdrain)	849
491032	Los Angeles	Dorothy St	Bioretention (No Underdrain)	1,108
491032	Los Angeles	Dunstan Way	Bioretention (No Underdrain)	46
491032	Los Angeles	E Downes Rd	Bioretention (No Underdrain)	30
491032	Los Angeles	Eisenhower Ave	Bioretention (No Underdrain)	11
491032	Los Angeles	Evensong Dr	Bioretention (No Underdrain)	422
491032	Los Angeles	Everglade St	Bioretention (No Underdrain)	290
491032	Los Angeles	Exposition Blvd	Bioretention (No Underdrain)	46
491032	Los Angeles	Federal Ave	Bioretention (No Underdrain)	12,059
491032	Los Angeles	Gateway Blvd	Bioretention (No Underdrain)	2,640
491032	Los Angeles	Gorham Ave	Bioretention (No Underdrain)	1,570
491032	Los Angeles	Gorham Pl	Bioretention (No Underdrain)	607
491032	Los Angeles	Goshen Ave	Bioretention (No Underdrain)	2,982
491032	Los Angeles	Graham Pl	Bioretention (No Underdrain)	611
491032	Los Angeles	Grand View Blvd	Bioretention (No Underdrain)	3,190
491032	Los Angeles	Granville Ave	Bioretention (No Underdrain)	12,241
491032	Los Angeles	Halvern Dr	Bioretention (No Underdrain)	268
491032	Los Angeles	Idaho Ave	Bioretention (No Underdrain)	4,849

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491032	Los Angeles	Indianapolis St	Bioretention (No Underdrain)	952
491032	Los Angeles	Inglewood Ave	Bioretention (No Underdrain)	85
491032	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	2,088
491032	Los Angeles	Iowa Ave	Bioretention (No Underdrain)	6,456
491032	Los Angeles	Ivy Pl	Bioretention (No Underdrain)	268
491032	Los Angeles	Keeshen Dr	Bioretention (No Underdrain)	352
491032	Los Angeles	Kingsland St	Bioretention (No Underdrain)	1,495
491032	Los Angeles	Kiowa Ave	Bioretention (No Underdrain)	2,846
491032	Los Angeles	La Grange Ave	Bioretention (No Underdrain)	5,123
491032	Los Angeles	Lawler St	Bioretention (No Underdrain)	170
491032	Los Angeles	Lorna Ct	Bioretention (No Underdrain)	43
491032	Los Angeles	Malone St	Bioretention (No Underdrain)	338
491032	Los Angeles	Marine St	Bioretention (No Underdrain)	887
491032	Los Angeles	Massachusetts Ave	Bioretention (No Underdrain)	915
491032	Los Angeles	Mayfield Ave	Bioretention (No Underdrain)	2,761
491032	Los Angeles	McLaughlin Ave	Bioretention (No Underdrain)	1,564
491032	Los Angeles	Mississippi Ave	Bioretention (No Underdrain)	5,002
491032	Los Angeles	Missouri Ave	Bioretention (No Underdrain)	5,223
491032	Los Angeles	Montana Ave	Bioretention (No Underdrain)	1,015
491032	Los Angeles	Mountain View Ave	Bioretention (No Underdrain)	2,210
491032	Los Angeles	N Barrington Ave	Bioretention (No Underdrain)	1,695
491032	Los Angeles	N Saltair Ave	Bioretention (No Underdrain)	139
491032	Los Angeles	National Blvd	Bioretention (No Underdrain)	4,221
491032	Los Angeles	Navy St	Bioretention (No Underdrain)	1,608
491032	Los Angeles	Nebraska Ave	Bioretention (No Underdrain)	6,791
491032	Los Angeles	Ocean Park Blvd	Bioretention (No Underdrain)	1,693
491032	Los Angeles	Ohio Ave	Bioretention (No Underdrain)	5,834
491032	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	1,819
491032	Los Angeles	Pearl Pl	Bioretention (No Underdrain)	349
491032	Los Angeles	Pearl St	Bioretention (No Underdrain)	3,717
491032	Los Angeles	Pennsylvania Ave	Bioretention (No Underdrain)	30
491032	Los Angeles	Pontius Ave	Bioretention (No Underdrain)	3,469
491032	Los Angeles	Purdue Ave	Bioretention (No Underdrain)	8,571
491032	Los Angeles	Radio Dr	Bioretention (No Underdrain)	667
491032	Los Angeles	Rhode Island Ave	Bioretention (No Underdrain)	484
491032	Los Angeles	Richland Ave	Bioretention (No Underdrain)	1,622
491032	Los Angeles	Rochester Ave	Bioretention (No Underdrain)	2,948
491032	Los Angeles	Rose Ave	Bioretention (No Underdrain)	2,010
491032	Los Angeles	S Barrington Ave	Bioretention (No Underdrain)	19,354
491032	Los Angeles	S Barrington Pl	Bioretention (No Underdrain)	1,062
491032	Los Angeles	S Barry Ave	Bioretention (No Underdrain)	21
491032	Los Angeles	S Beloit Ave	Bioretention (No Underdrain)	103
491032	Los Angeles	S Bundy Dr	Bioretention (No Underdrain)	10,594
491032	Los Angeles	S Carmelina Ave	Bioretention (No Underdrain)	3,675
491032	Los Angeles	S Centinela Ave	Bioretention (No Underdrain)	7,275
491032	Los Angeles	S Colby Ave	Bioretention (No Underdrain)	82
491032	Los Angeles	S Coolidge Ave	Bioretention (No Underdrain)	82
491032	Los Angeles	S Gateway Blvd	Bioretention (No Underdrain)	925
491032	Los Angeles	S Gunston Dr	Bioretention (No Underdrain)	324
491032	Los Angeles	S Layton Dr	Bioretention (No Underdrain)	793
491032	Los Angeles	S Ohio Ave	Bioretention (No Underdrain)	114
491032	Los Angeles	S Saltair Ave	Bioretention (No Underdrain)	2,477
491032	Los Angeles	S Wellesley Ave	Bioretention (No Underdrain)	154
491032	Los Angeles	S Westgate Ave	Bioretention (No Underdrain)	10,995
491032	Los Angeles	S Woodburn Dr	Bioretention (No Underdrain)	353

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491032	Los Angeles	Saint Susan Pl	Bioretention (No Underdrain)	531
491032	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	2,490
491032	Los Angeles	Sardis Ave	Bioretention (No Underdrain)	1,510
491032	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	4,835
491032	Los Angeles	Stanwood Dr	Bioretention (No Underdrain)	2,990
491032	Los Angeles	Stoner Ave	Bioretention (No Underdrain)	10,561
491032	Los Angeles	Sunset Pkwy	Bioretention (No Underdrain)	795
491032	Los Angeles	Tennessee Ave	Bioretention (No Underdrain)	4,898
491032	Los Angeles	Tennessee Pl	Bioretention (No Underdrain)	1,245
491032	Los Angeles	Terryhill Pl	Bioretention (No Underdrain)	574
491032	Los Angeles	Texas Ave	Bioretention (No Underdrain)	3,594
491032	Los Angeles	Thermo St	Bioretention (No Underdrain)	182
491032	Los Angeles	Virginia Ave	Bioretention (No Underdrain)	32
491032	Los Angeles	W Gateway Blvd	Bioretention (No Underdrain)	1,471
491032	Los Angeles	W Nebraska Ave	Bioretention (No Underdrain)	7
491032	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	6,302
491032	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	3,718
491032	Los Angeles	W San Vicente Blvd	Bioretention (No Underdrain)	4,653
491032	Los Angeles	W Tennessee Ave	Bioretention (No Underdrain)	201
491032	Los Angeles	Walnut Ln	Bioretention (No Underdrain)	432
491032	Los Angeles	Wellesley Ave	Bioretention (No Underdrain)	5,119
491032	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	3,817
491032	Los Angeles	Woodbine St	Bioretention (No Underdrain)	823
491032	Los Angeles	Wyoming Ave	Bioretention (No Underdrain)	682
491033	Los Angeles	Bentley Ave	Bioretention (No Underdrain)	56
491033	Los Angeles	Brookhaven Ave	Bioretention (No Underdrain)	696
491033	Los Angeles	Clover Ave	Bioretention (No Underdrain)	1,467
491033	Los Angeles	Cotner Ave	Bioretention (No Underdrain)	1,074
491033	Los Angeles	Graham Pl	Bioretention (No Underdrain)	123
491033	Los Angeles	Greenfield Ave	Bioretention (No Underdrain)	1,040
491033	Los Angeles	Ivy Pl	Bioretention (No Underdrain)	271
491033	Los Angeles	Kelton Ave	Bioretention (No Underdrain)	360
491033	Los Angeles	Kingsland St	Bioretention (No Underdrain)	166
491033	Los Angeles	Military Ave	Bioretention (No Underdrain)	2,497
491033	Los Angeles	National Blvd	Bioretention (No Underdrain)	1,513
491033	Los Angeles	Pearl St	Bioretention (No Underdrain)	630
491033	Los Angeles	Pickford St	Bioretention (No Underdrain)	180
491033	Los Angeles	Pontius Ave	Bioretention (No Underdrain)	740
491033	Los Angeles	Queensland St	Bioretention (No Underdrain)	2,025
491033	Los Angeles	Richland Ave	Bioretention (No Underdrain)	1,189
491033	Los Angeles	Rose Ave	Bioretention (No Underdrain)	970
491033	Los Angeles	S Bentley Ave	Bioretention (No Underdrain)	4,888
491033	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	5,763
491033	Los Angeles	S Sepulveda Ct	Bioretention (No Underdrain)	100
491033	Los Angeles	S Tilden Ave	Bioretention (No Underdrain)	1
491033	Los Angeles	Sardis Ave	Bioretention (No Underdrain)	1,351
491033	Los Angeles	Sawtelle Blvd	Bioretention (No Underdrain)	5,849
491033	Los Angeles	Stanwood Dr	Bioretention (No Underdrain)	102
491033	Los Angeles	Tennessee Ave	Bioretention (No Underdrain)	49
491033	Los Angeles	Tilden Ave	Bioretention (No Underdrain)	3,729
491033	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	782
491033	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	27
491033	Los Angeles	W Pickford St	Bioretention (No Underdrain)	42
491033	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	415
491034	Los Angeles	(unknown)	Bioretention (No Underdrain)	942

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491034	Los Angeles	Aiken Ave	Bioretention (No Underdrain)	1,124
491034	Los Angeles	Almayo Ave	Bioretention (No Underdrain)	2,846
491034	Los Angeles	Ashby Ave	Bioretention (No Underdrain)	2,006
491034	Los Angeles	Ashton Ave	Bioretention (No Underdrain)	5,597
491034	Los Angeles	Ave of the Stars	Bioretention (No Underdrain)	1,508
491034	Los Angeles	Ayres Ave	Bioretention (No Underdrain)	3,575
491034	Los Angeles	Bainbridge Ave	Bioretention (No Underdrain)	43
491034	Los Angeles	Balsam Ave	Bioretention (No Underdrain)	1,379
491034	Los Angeles	Bellwood Ave	Bioretention (No Underdrain)	722
491034	Los Angeles	Benecia Ave	Bioretention (No Underdrain)	2,952
491034	Los Angeles	Birchwood Dr	Bioretention (No Underdrain)	859
491034	Los Angeles	Blythe Ave	Bioretention (No Underdrain)	2,141
491034	Los Angeles	Bradbury Rd	Bioretention (No Underdrain)	1,622
491034	Los Angeles	Brookhaven Ave	Bioretention (No Underdrain)	569
491034	Los Angeles	Butterfield Rd	Bioretention (No Underdrain)	2,122
491034	Los Angeles	Calmar Ct	Bioretention (No Underdrain)	193
491034	Los Angeles	Calvin Ave	Bioretention (No Underdrain)	998
491034	Los Angeles	Century Park W	Bioretention (No Underdrain)	1,905
491034	Los Angeles	Century Woods Dr	Bioretention (No Underdrain)	49
491034	Los Angeles	Charing Cross Rd	Bioretention (No Underdrain)	611
491034	Los Angeles	Charles E Young Dr N	Bioretention (No Underdrain)	68
491034	Los Angeles	Cheviot Dr	Bioretention (No Underdrain)	2,292
491034	Los Angeles	Circle Dr E	Bioretention (No Underdrain)	133
491034	Los Angeles	Clarkson Rd	Bioretention (No Underdrain)	851
491034	Los Angeles	Club Dr	Bioretention (No Underdrain)	936
491034	Los Angeles	Club Pl	Bioretention (No Underdrain)	394
491034	Los Angeles	Club View Dr	Bioretention (No Underdrain)	3,177
491034	Los Angeles	Comstock Ave	Bioretention (No Underdrain)	8,698
491034	Los Angeles	Constellation Blvd	Bioretention (No Underdrain)	1,187
491034	Los Angeles	Conway Ave	Bioretention (No Underdrain)	542
491034	Los Angeles	Coventry Pl	Bioretention (No Underdrain)	3,024
491034	Los Angeles	Cresta Dr	Bioretention (No Underdrain)	1,894
491034	Los Angeles	Cresta Pl	Bioretention (No Underdrain)	320
491034	Los Angeles	Crestview Ct	Bioretention (No Underdrain)	293
491034	Los Angeles	Cushdon Ave	Bioretention (No Underdrain)	3,422
491034	Los Angeles	Dalehurst Ave	Bioretention (No Underdrain)	2,590
491034	Los Angeles	Devon Ave	Bioretention (No Underdrain)	2,113
491034	Los Angeles	Draper Ave	Bioretention (No Underdrain)	451
491034	Los Angeles	Dumfries Rd	Bioretention (No Underdrain)	129
491034	Los Angeles	Dunkirk Ave	Bioretention (No Underdrain)	518
491034	Los Angeles	Dunleer Pl	Bioretention (No Underdrain)	616
491034	Los Angeles	E Temple Way	Bioretention (No Underdrain)	35
491034	Los Angeles	Eastborne Ave	Bioretention (No Underdrain)	4,053
491034	Los Angeles	Edgeley Pl	Bioretention (No Underdrain)	216
491034	Los Angeles	Ensley Ave	Bioretention (No Underdrain)	431
491034	Los Angeles	Esther Ave	Bioretention (No Underdrain)	2,654
491034	Los Angeles	Fairburn Ave	Bioretention (No Underdrain)	4,323
491034	Los Angeles	Forrester Dr	Bioretention (No Underdrain)	777
491034	Los Angeles	Fox Hills Dr	Bioretention (No Underdrain)	3,941
491034	Los Angeles	Garden Ln	Bioretention (No Underdrain)	93
491034	Los Angeles	Garwood Pl	Bioretention (No Underdrain)	246
491034	Los Angeles	Gilmerton Ave	Bioretention (No Underdrain)	562
491034	Los Angeles	Glenbarr Ave	Bioretention (No Underdrain)	1,162
491034	Los Angeles	Glendon Ave	Bioretention (No Underdrain)	9,170
491034	Los Angeles	Glenmont Ave	Bioretention (No Underdrain)	675

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491034	Los Angeles	Greenfield Ave	Bioretention (No Underdrain)	851
491034	Los Angeles	Haddington Dr	Bioretention (No Underdrain)	1,075
491034	Los Angeles	Hilgard Ave	Bioretention (No Underdrain)	2,946
491034	Los Angeles	Hilts Ave	Bioretention (No Underdrain)	1,445
491034	Los Angeles	Holman Ave	Bioretention (No Underdrain)	4,171
491034	Los Angeles	Holmby Ave	Bioretention (No Underdrain)	5,973
491034	Los Angeles	Ilona Ave	Bioretention (No Underdrain)	2,937
491034	Los Angeles	Kelton Ave	Bioretention (No Underdrain)	2,631
491034	Los Angeles	Kerwood Ave	Bioretention (No Underdrain)	3,348
491034	Los Angeles	Keswick Ave	Bioretention (No Underdrain)	1,466
491034	Los Angeles	Kinnard Ave	Bioretention (No Underdrain)	2,795
491034	Los Angeles	la Grange Ave	Bioretention (No Underdrain)	3,958
491034	Los Angeles	Lauriston Ave	Bioretention (No Underdrain)	1,968
491034	Los Angeles	Le Conte Ave	Bioretention (No Underdrain)	2,489
491034	Los Angeles	Lindbrook Dr	Bioretention (No Underdrain)	3,990
491034	Los Angeles	Linnington Ave	Bioretention (No Underdrain)	2,027
491034	Los Angeles	Lomond Ave	Bioretention (No Underdrain)	327
491034	Los Angeles	Lorenzo Dr	Bioretention (No Underdrain)	912
491034	Los Angeles	Lorenzo Pl	Bioretention (No Underdrain)	1,001
491034	Los Angeles	Loring Ave	Bioretention (No Underdrain)	2,080
491034	Los Angeles	Louisiana Ave	Bioretention (No Underdrain)	2,653
491034	Los Angeles	Malcolm Ave	Bioretention (No Underdrain)	9,984
491034	Los Angeles	Manning Ave	Bioretention (No Underdrain)	12,930
491034	Los Angeles	Massachusetts Ave	Bioretention (No Underdrain)	2,131
491034	Los Angeles	Mgm Dr	Bioretention (No Underdrain)	93
491034	Los Angeles	Midvale Ave	Bioretention (No Underdrain)	3,842
491034	Los Angeles	Military Ave	Bioretention (No Underdrain)	169
491034	Los Angeles	Mississippi Ave	Bioretention (No Underdrain)	3,661
491034	Los Angeles	Missouri Ave	Bioretention (No Underdrain)	4,829
491034	Los Angeles	Monte Mar Dr	Bioretention (No Underdrain)	1,752
491034	Los Angeles	Motor Ave	Bioretention (No Underdrain)	2,407
491034	Los Angeles	N Temple Way	Bioretention (No Underdrain)	30
491034	Los Angeles	National Blvd	Bioretention (No Underdrain)	1,216
491034	Los Angeles	Norcroft Ave	Bioretention (No Underdrain)	175
491034	Los Angeles	Northvale Rd	Bioretention (No Underdrain)	839
491034	Los Angeles	Oaklawn Rd	Bioretention (No Underdrain)	313
491034	Los Angeles	Ohio Ave	Bioretention (No Underdrain)	3,854
491034	Los Angeles	Orton Ave	Bioretention (No Underdrain)	632
491034	Los Angeles	Overland Ave	Bioretention (No Underdrain)	7,540
491034	Los Angeles	Pandora Ave	Bioretention (No Underdrain)	2,388
491034	Los Angeles	Parnell Ave	Bioretention (No Underdrain)	4,261
491034	Los Angeles	Patricia Ave	Bioretention (No Underdrain)	5,554
491034	Los Angeles	Pelham Ave	Bioretention (No Underdrain)	4,209
491034	Los Angeles	Prosser Ave	Bioretention (No Underdrain)	6,155
491034	Los Angeles	Putney Rd	Bioretention (No Underdrain)	1,750
491034	Los Angeles	Richland Ave	Bioretention (No Underdrain)	955
491034	Los Angeles	Rochester Ave	Bioretention (No Underdrain)	6,269
491034	Los Angeles	Rosbury Pl	Bioretention (No Underdrain)	377
491034	Los Angeles	Rountree Rd	Bioretention (No Underdrain)	1,419
491034	Los Angeles	S Ave of the Stars	Bioretention (No Underdrain)	1,698
491034	Los Angeles	S Beverly Glen Blvd	Bioretention (No Underdrain)	12,217
491034	Los Angeles	S Mapleton Dr	Bioretention (No Underdrain)	1,963
491034	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	4,921
491034	Los Angeles	Selby Ave	Bioretention (No Underdrain)	10,107
491034	Los Angeles	Sproul Ave	Bioretention (No Underdrain)	80

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491034	Los Angeles	St Regis Dr	Bioretention (No Underdrain)	50
491034	Los Angeles	Strathmore Ave	Bioretention (No Underdrain)	667
491034	Los Angeles	Strathmore Dr	Bioretention (No Underdrain)	1,620
491034	Los Angeles	Tennessee Ave	Bioretention (No Underdrain)	5,932
491034	Los Angeles	Thayer Ave	Bioretention (No Underdrain)	7,230
491034	Los Angeles	Troon Ave	Bioretention (No Underdrain)	1,845
491034	Los Angeles	Verona Ave	Bioretention (No Underdrain)	340
491034	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	1,520
491034	Los Angeles	W Galaxy Way	Bioretention (No Underdrain)	357
491034	Los Angeles	W Mississippi Ave	Bioretention (No Underdrain)	209
491034	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	6,969
491034	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	6,440
491034	Los Angeles	Warnall Ave	Bioretention (No Underdrain)	2,365
491034	Los Angeles	Warner Ave	Bioretention (No Underdrain)	5,628
491034	Los Angeles	Wellworth Ave	Bioretention (No Underdrain)	5,206
491034	Los Angeles	Westholme Ave	Bioretention (No Underdrain)	6,907
491034	Los Angeles	Westwood Blvd	Bioretention (No Underdrain)	8,951
491034	Los Angeles	Weyburn Ave	Bioretention (No Underdrain)	271
491034	Los Angeles	Wicklow Rd	Bioretention (No Underdrain)	231
491034	Los Angeles	Wigtown Rd	Bioretention (No Underdrain)	636
491034	Los Angeles	Wilkins Ave	Bioretention (No Underdrain)	5,253
491034	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	5,486
491034	Los Angeles	Woodruff Ave	Bioretention (No Underdrain)	3,723
491034	Los Angeles	Wyton Dr	Bioretention (No Underdrain)	2,145
491035	Los Angeles	(unknown)	Bioretention (No Underdrain)	223
491035	Los Angeles	Amapola Ln	Bioretention (No Underdrain)	103
491035	Los Angeles	Angelo Dr	Bioretention (No Underdrain)	48
491035	Los Angeles	Bainbridge Ave	Bioretention (No Underdrain)	839
491035	Los Angeles	Basil Ln	Bioretention (No Underdrain)	286
491035	Los Angeles	Bel Air Rd	Bioretention (No Underdrain)	2,807
491035	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	1,476
491035	Los Angeles	Beverly Glen Pl	Bioretention (No Underdrain)	121
491035	Los Angeles	Bottlebrush Dr	Bioretention (No Underdrain)	306
491035	Los Angeles	Briarwood Dr	Bioretention (No Underdrain)	41
491035	Los Angeles	Charing Cross Rd	Bioretention (No Underdrain)	1,587
491035	Los Angeles	Chrysanthemum Ln	Bioretention (No Underdrain)	88
491035	Los Angeles	Claray Dr	Bioretention (No Underdrain)	31
491035	Los Angeles	Clearwood Ct	Bioretention (No Underdrain)	84
491035	Los Angeles	Comstock Ave	Bioretention (No Underdrain)	1,137
491035	Los Angeles	Conway Ave	Bioretention (No Underdrain)	938
491035	Los Angeles	Copa de Oro Rd	Bioretention (No Underdrain)	1,699
491035	Los Angeles	Crater Ln	Bioretention (No Underdrain)	13
491035	Los Angeles	Cuesta Way	Bioretention (No Underdrain)	376
491035	Los Angeles	Duluth Ln	Bioretention (No Underdrain)	40
491035	Los Angeles	Fernbush Ln	Bioretention (No Underdrain)	26
491035	Los Angeles	Greendale Dr	Bioretention (No Underdrain)	73
491035	Los Angeles	Hilgard Ave	Bioretention (No Underdrain)	314
491035	Los Angeles	Isadora Ln	Bioretention (No Underdrain)	4
491035	Los Angeles	Isadore Ln	Bioretention (No Underdrain)	4
491035	Los Angeles	Lomond Ave	Bioretention (No Underdrain)	128
491035	Los Angeles	Loring Ave	Bioretention (No Underdrain)	1,891
491035	Los Angeles	Madrono Ln	Bioretention (No Underdrain)	532
491035	Los Angeles	N Angelo Dr	Bioretention (No Underdrain)	48
491035	Los Angeles	N Basil Ln	Bioretention (No Underdrain)	3
491035	Los Angeles	N Beverly Glen Pl	Bioretention (No Underdrain)	23

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491035	Los Angeles	N Bushrod Ln	Bioretention (No Underdrain)	45
491035	Los Angeles	N Claray Dr	Bioretention (No Underdrain)	31
491035	Los Angeles	N Crater Ln	Bioretention (No Underdrain)	0
491035	Los Angeles	N Faring Rd	Bioretention (No Underdrain)	431
491035	Los Angeles	N Langtry Ln	Bioretention (No Underdrain)	13
491035	Los Angeles	N Latimer Ln	Bioretention (No Underdrain)	3
491035	Los Angeles	N Mapleton Dr	Bioretention (No Underdrain)	616
491035	Los Angeles	N Nicada Dr	Bioretention (No Underdrain)	179
491035	Los Angeles	N Oletha Ln	Bioretention (No Underdrain)	62
491035	Los Angeles	N Parkwood Dr	Bioretention (No Underdrain)	641
491035	Los Angeles	N Pointer Ln	Bioretention (No Underdrain)	0
491035	Los Angeles	N Rial Ln	Bioretention (No Underdrain)	47
491035	Los Angeles	N Tiffany Cir	Bioretention (No Underdrain)	462
491035	Los Angeles	N Woodwardia Dr	Bioretention (No Underdrain)	10
491035	Los Angeles	Nicada Dr	Bioretention (No Underdrain)	279
491035	Los Angeles	Nimes Rd	Bioretention (No Underdrain)	34
491035	Los Angeles	Oletha Ln	Bioretention (No Underdrain)	68
491035	Los Angeles	Parkwood Dr	Bioretention (No Underdrain)	641
491035	Los Angeles	Raybet Rd	Bioretention (No Underdrain)	15
491035	Los Angeles	Revuelta Way	Bioretention (No Underdrain)	430
491035	Los Angeles	Rial Ln	Bioretention (No Underdrain)	209
491035	Los Angeles	S Beverly Glen Blvd	Bioretention (No Underdrain)	237
491035	Los Angeles	Saint Cloud Rd	Bioretention (No Underdrain)	1,101
491035	Los Angeles	Sandall Ln	Bioretention (No Underdrain)	58
491035	Los Angeles	Scenario Ln	Bioretention (No Underdrain)	141
491035	Los Angeles	Seabury Ln	Bioretention (No Underdrain)	156
491035	Los Angeles	Selkirk Ln	Bioretention (No Underdrain)	20
491035	Los Angeles	Sprucewood Ln	Bioretention (No Underdrain)	35
491035	Los Angeles	St Pierre Rd	Bioretention (No Underdrain)	1,498
491035	Los Angeles	Strada Corta Rd	Bioretention (No Underdrain)	159
491035	Los Angeles	Tiffany Cir	Bioretention (No Underdrain)	462
491035	Los Angeles	W Briarwood Dr	Bioretention (No Underdrain)	41
491035	Los Angeles	W Chrysanthemum Ln	Bioretention (No Underdrain)	129
491035	Los Angeles	W Louvain Ln	Bioretention (No Underdrain)	76
491035	Los Angeles	W Oletha Ln	Bioretention (No Underdrain)	5
491035	Los Angeles	W Polo Ln	Bioretention (No Underdrain)	76
491035	Los Angeles	W Ridgetop Ln	Bioretention (No Underdrain)	3
491035	Los Angeles	W Scenario Ln	Bioretention (No Underdrain)	29
491035	Los Angeles	W Seabury Ln	Bioretention (No Underdrain)	36
491035	Los Angeles	W Selkirk Ln	Bioretention (No Underdrain)	20
491035	Los Angeles	Woodruff Ave	Bioretention (No Underdrain)	847
491035	Los Angeles	Woodwardia Dr	Bioretention (No Underdrain)	10
491036	Los Angeles	(unknown)	Bioretention (No Underdrain)	267
491036	Los Angeles	Ashton Ave	Bioretention (No Underdrain)	1,178
491036	Los Angeles	Ayres Ave	Bioretention (No Underdrain)	1,423
491036	Los Angeles	Brookhaven Ave	Bioretention (No Underdrain)	1,063
491036	Los Angeles	Broxton Ave	Bioretention (No Underdrain)	750
491036	Los Angeles	Camden Ave	Bioretention (No Underdrain)	6,245
491036	Los Angeles	Gayley Ave	Bioretention (No Underdrain)	1,491
491036	Los Angeles	Glendon Ave	Bioretention (No Underdrain)	1,815
491036	Los Angeles	Greenfield Ave	Bioretention (No Underdrain)	8,773
491036	Los Angeles	Hilgard Ave	Bioretention (No Underdrain)	3,047
491036	Los Angeles	Kelton Ave	Bioretention (No Underdrain)	8,278
491036	Los Angeles	Kinross Ave	Bioretention (No Underdrain)	852
491036	Los Angeles	la Grange Ave	Bioretention (No Underdrain)	2,273

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491036	Los Angeles	Le Conte Ave	Bioretention (No Underdrain)	1,880
491036	Los Angeles	Lindbrook Dr	Bioretention (No Underdrain)	2,305
491036	Los Angeles	Malcolm Ave	Bioretention (No Underdrain)	2,250
491036	Los Angeles	Manning Ave	Bioretention (No Underdrain)	339
491036	Los Angeles	Manning Dr	Bioretention (No Underdrain)	48
491036	Los Angeles	Massachusetts Ave	Bioretention (No Underdrain)	1,269
491036	Los Angeles	Midvale Ave	Bioretention (No Underdrain)	7,381
491036	Los Angeles	Military Ave	Bioretention (No Underdrain)	3,097
491036	Los Angeles	Mississippi Ave	Bioretention (No Underdrain)	2,439
491036	Los Angeles	Missouri Ave	Bioretention (No Underdrain)	2,110
491036	Los Angeles	Ohio Ave	Bioretention (No Underdrain)	2,050
491036	Los Angeles	Richland Ave	Bioretention (No Underdrain)	96
491036	Los Angeles	Rochester Ave	Bioretention (No Underdrain)	754
491036	Los Angeles	S Bentley Ave	Bioretention (No Underdrain)	6,217
491036	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	446
491036	Los Angeles	S Westwood Blvd	Bioretention (No Underdrain)	1,271
491036	Los Angeles	Sardis Ave	Bioretention (No Underdrain)	6
491036	Los Angeles	Sproul Ave	Bioretention (No Underdrain)	602
491036	Los Angeles	Tennessee Ave	Bioretention (No Underdrain)	2,169
491036	Los Angeles	Tilden Ave	Bioretention (No Underdrain)	20
491036	Los Angeles	Tiverton Ave	Bioretention (No Underdrain)	1,395
491036	Los Angeles	Tiverton Dr	Bioretention (No Underdrain)	43
491036	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	10,602
491036	Los Angeles	W Brookhaven Ave	Bioretention (No Underdrain)	307
491036	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	2,139
491036	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	2,154
491036	Los Angeles	Wellworth Ave	Bioretention (No Underdrain)	976
491036	Los Angeles	Westwood Blvd	Bioretention (No Underdrain)	4,126
491036	Los Angeles	Weyburn Ave	Bioretention (No Underdrain)	2,650
491036	Los Angeles	Weyburn Pl	Bioretention (No Underdrain)	419
491036	Los Angeles	Wilkins Ave	Bioretention (No Underdrain)	831
491036	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	2,978
491037	Los Angeles	(unknown)	Bioretention (No Underdrain)	46
491037	Los Angeles	Acanto St	Bioretention (No Underdrain)	555
491037	Los Angeles	Acari Dr	Bioretention (No Underdrain)	604
491037	Los Angeles	Albata St	Bioretention (No Underdrain)	886
491037	Los Angeles	Ashdale Ave	Bioretention (No Underdrain)	294
491037	Los Angeles	Ashdale Pl	Bioretention (No Underdrain)	696
491037	Los Angeles	Ayrshire Rd	Bioretention (No Underdrain)	42
491037	Los Angeles	Barlock Ave	Bioretention (No Underdrain)	829
491037	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	284
491037	Los Angeles	Bellagio Ter	Bioretention (No Underdrain)	413
491037	Los Angeles	Beloit Ave	Bioretention (No Underdrain)	4,210
491037	Los Angeles	Bentley Cir	Bioretention (No Underdrain)	67
491037	Los Angeles	Berwick St	Bioretention (No Underdrain)	879
491037	Los Angeles	Beverly Park Dr	Bioretention (No Underdrain)	32
491037	Los Angeles	Bolas St	Bioretention (No Underdrain)	786
491037	Los Angeles	Bronwood Ave	Bioretention (No Underdrain)	1,282
491037	Los Angeles	Burnham St	Bioretention (No Underdrain)	886
491037	Los Angeles	Cascada Way	Bioretention (No Underdrain)	225
491037	Los Angeles	Cashmere St	Bioretention (No Underdrain)	2,207
491037	Los Angeles	Cashmere Ter	Bioretention (No Underdrain)	350
491037	Los Angeles	Chalon Rd	Bioretention (No Underdrain)	931
491037	Los Angeles	Chenault St	Bioretention (No Underdrain)	878
491037	Los Angeles	Dalkeith Ave	Bioretention (No Underdrain)	227

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491037	Los Angeles	Davis Ave	Bioretention (No Underdrain)	25
491037	Los Angeles	Denair St	Bioretention (No Underdrain)	446
491037	Los Angeles	Denslow Ave	Bioretention (No Underdrain)	587
491037	Los Angeles	Elderwood St	Bioretention (No Underdrain)	563
491037	Los Angeles	Farlin St	Bioretention (No Underdrain)	591
491037	Los Angeles	Gladwin St	Bioretention (No Underdrain)	652
491037	Los Angeles	Glenroy Pl	Bioretention (No Underdrain)	274
491037	Los Angeles	Homedale St	Bioretention (No Underdrain)	1,334
491037	Los Angeles	Isleta St	Bioretention (No Underdrain)	590
491037	Los Angeles	Joffre St	Bioretention (No Underdrain)	372
491037	Los Angeles	Kiel St	Bioretention (No Underdrain)	177
491037	Los Angeles	Ledo Way	Bioretention (No Underdrain)	134
491037	Los Angeles	Levering Ave	Bioretention (No Underdrain)	242
491037	Los Angeles	Linda Flora Dr	Bioretention (No Underdrain)	2,154
491037	Los Angeles	Montana Ave	Bioretention (No Underdrain)	1,752
491037	Los Angeles	N Bentley Ave	Bioretention (No Underdrain)	304
491037	Los Angeles	N Church Ln	Bioretention (No Underdrain)	252
491037	Los Angeles	N Glenroy Ave	Bioretention (No Underdrain)	999
491037	Los Angeles	N Glenroy Pl	Bioretention (No Underdrain)	274
491037	Los Angeles	N Sepulveda Blvd	Bioretention (No Underdrain)	463
491037	Los Angeles	N Thurston Ave	Bioretention (No Underdrain)	639
491037	Los Angeles	N Thurston Pl	Bioretention (No Underdrain)	306
491037	Los Angeles	Orum Rd	Bioretention (No Underdrain)	163
491037	Los Angeles	Ovada Pl	Bioretention (No Underdrain)	328
491037	Los Angeles	S Bentley Ave	Bioretention (No Underdrain)	2,403
491037	Los Angeles	S Church Ln	Bioretention (No Underdrain)	231
491037	Los Angeles	S Glenroy Ave	Bioretention (No Underdrain)	1,707
491037	Los Angeles	S Gunston Dr	Bioretention (No Underdrain)	222
491037	Los Angeles	S Layton Dr	Bioretention (No Underdrain)	59
491037	Los Angeles	S Montana Ave	Bioretention (No Underdrain)	58
491037	Los Angeles	S Sepulveda Blvd	Bioretention (No Underdrain)	1,020
491037	Los Angeles	S Thurston Ave	Bioretention (No Underdrain)	919
491037	Los Angeles	S Woodburn Dr	Bioretention (No Underdrain)	364
491037	Los Angeles	Tavistock Ave	Bioretention (No Underdrain)	714
491037	Los Angeles	Thurston Cir	Bioretention (No Underdrain)	477
491037	Los Angeles	Waterford St	Bioretention (No Underdrain)	725
491038	Los Angeles	(unknown)	Bioretention (No Underdrain)	116
491038	Los Angeles	Acanto Pl	Bioretention (No Underdrain)	1,118
491038	Los Angeles	Bel Ter	Bioretention (No Underdrain)	90
491038	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	389
491038	Los Angeles	Brownfield Dr	Bioretention (No Underdrain)	74
491038	Los Angeles	Canyonback Rd	Bioretention (No Underdrain)	95
491038	Los Angeles	Casiano Rd	Bioretention (No Underdrain)	1,415
491038	Los Angeles	Collina Strada St	Bioretention (No Underdrain)	13
491038	Los Angeles	Corda Dr	Bioretention (No Underdrain)	1,192
491038	Los Angeles	Corda Ln	Bioretention (No Underdrain)	267
491038	Los Angeles	Elvido Dr	Bioretention (No Underdrain)	1,416
491038	Los Angeles	Elvill Dr	Bioretention (No Underdrain)	417
491038	Los Angeles	Mission Dump Rd	Bioretention (No Underdrain)	209
491038	Los Angeles	Montego Dr	Bioretention (No Underdrain)	23
491038	Los Angeles	Mountain Gate Dr	Bioretention (No Underdrain)	14
491038	Los Angeles	Mountaingate Dr	Bioretention (No Underdrain)	14
491038	Los Angeles	Mountaingate Ridge Rd	Bioretention (No Underdrain)	43
491038	Los Angeles	Mulholland Dr	Bioretention (No Underdrain)	1,040
491038	Los Angeles	Mulholland Pl	Bioretention (No Underdrain)	1

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491038	Los Angeles	N Sepulveda Blvd	Bioretention (No Underdrain)	4,457
491038	Los Angeles	Park Lane Cir	Bioretention (No Underdrain)	1,752
491038	Los Angeles	Park Lane Dr	Bioretention (No Underdrain)	416
491038	Los Angeles	Park Lane Pl	Bioretention (No Underdrain)	385
491038	Los Angeles	Sepulveda Blvd	Bioretention (No Underdrain)	1,987
491038	Los Angeles	Skirball Center Dr	Bioretention (No Underdrain)	203
491038	Los Angeles	Sloan Dr	Bioretention (No Underdrain)	974
491038	Los Angeles	Stone Oak Dr	Bioretention (No Underdrain)	16
491038	Los Angeles	Zeldins Way	Bioretention (No Underdrain)	116
491039	Los Angeles	(unknown)	Bioretention (No Underdrain)	349
491039	Los Angeles	Aqua Verde Dr	Bioretention (No Underdrain)	55
491039	Los Angeles	Belcanto	Bioretention (No Underdrain)	37
491039	Los Angeles	Belcanto Dr	Bioretention (No Underdrain)	37
491039	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	1,464
491039	Los Angeles	Brownwood Pl	Bioretention (No Underdrain)	262
491039	Los Angeles	Casiano Rd	Bioretention (No Underdrain)	606
491039	Los Angeles	Duomo Via	Bioretention (No Underdrain)	315
491039	Los Angeles	Earls Ct	Bioretention (No Underdrain)	15
491039	Los Angeles	Hamner Dr	Bioretention (No Underdrain)	1,408
491039	Los Angeles	Milldale Dr	Bioretention (No Underdrain)	751
491039	Los Angeles	Moraga Dr	Bioretention (No Underdrain)	3,605
491039	Los Angeles	Moraga Ter	Bioretention (No Underdrain)	30
491039	Los Angeles	N Sepulveda Blvd	Bioretention (No Underdrain)	32
491039	Los Angeles	Nalin Dr	Bioretention (No Underdrain)	718
491039	Los Angeles	Nalin Pl	Bioretention (No Underdrain)	123
491039	Los Angeles	Roscomare Rd	Bioretention (No Underdrain)	2,671
491039	Los Angeles	Spiros Dr	Bioretention (No Underdrain)	30
491040	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	1,135
491040	Los Angeles	Bellagio Way	Bioretention (No Underdrain)	214
491040	Los Angeles	Bentley Cir	Bioretention (No Underdrain)	20
491040	Los Angeles	Cashmere St	Bioretention (No Underdrain)	651
491040	Los Angeles	Cashmere Ter	Bioretention (No Underdrain)	123
491040	Los Angeles	Constitution Ave	Bioretention (No Underdrain)	2
491040	Los Angeles	Denslow Ave	Bioretention (No Underdrain)	1,151
491040	Los Angeles	Funchal Rd	Bioretention (No Underdrain)	201
491040	Los Angeles	Gayley Ave	Bioretention (No Underdrain)	386
491040	Los Angeles	Greenfield Ave	Bioretention (No Underdrain)	771
491040	Los Angeles	Kelton Ave	Bioretention (No Underdrain)	2,018
491040	Los Angeles	Levering Ave	Bioretention (No Underdrain)	1,268
491040	Los Angeles	Midvale Ave	Bioretention (No Underdrain)	349
491040	Los Angeles	Montana Ave	Bioretention (No Underdrain)	727
491040	Los Angeles	N Bentley Ave	Bioretention (No Underdrain)	172
491040	Los Angeles	Ophir Dr	Bioretention (No Underdrain)	1,093
491040	Los Angeles	Strathmore Dr	Bioretention (No Underdrain)	367
491040	Los Angeles	Tilden Ave	Bioretention (No Underdrain)	572
491040	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	3,781
491040	Los Angeles	W Bellagio Pl	Bioretention (No Underdrain)	0
491040	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	31
491041	Los Angeles	(unknown)	Bioretention (No Underdrain)	125
491041	Los Angeles	Anzio Rd	Bioretention (No Underdrain)	69
491041	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	86
491041	Los Angeles	Chalon Rd	Bioretention (No Underdrain)	112
491041	Los Angeles	Donella Cir	Bioretention (No Underdrain)	477
491041	Los Angeles	Linda Flora Dr	Bioretention (No Underdrain)	3,217
491041	Los Angeles	Roscomare Rd	Bioretention (No Underdrain)	7,061

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491041	Los Angeles	Savona Rd	Bioretention (No Underdrain)	20
491041	Los Angeles	Stradella Rd	Bioretention (No Underdrain)	1,658
491041	Los Angeles	Verano Rd	Bioretention (No Underdrain)	59
491042	Los Angeles	(unknown)	Bioretention (No Underdrain)	55
491042	Los Angeles	Chalon Rd	Bioretention (No Underdrain)	351
491042	Los Angeles	Chantilly Rd	Bioretention (No Underdrain)	1,822
491042	Los Angeles	Portofino Pl	Bioretention (No Underdrain)	185
491042	Los Angeles	Roberto Ln	Bioretention (No Underdrain)	989
491042	Los Angeles	Savona Rd	Bioretention (No Underdrain)	712
491042	Los Angeles	Somera Rd	Bioretention (No Underdrain)	1,413
491042	Los Angeles	Stradella Ct	Bioretention (No Underdrain)	103
491042	Los Angeles	Stradella Rd	Bioretention (No Underdrain)	1,760
491042	Los Angeles	Tarcuto Way	Bioretention (No Underdrain)	398
491042	Los Angeles	Via Verona St	Bioretention (No Underdrain)	548
491042	Los Angeles	Vicenza Way	Bioretention (No Underdrain)	411
491043	Los Angeles	Broxton Ave	Bioretention (No Underdrain)	447
491043	Los Angeles	Cashmere St	Bioretention (No Underdrain)	7
491043	Los Angeles	Constitution Ave	Bioretention (No Underdrain)	118
491043	Los Angeles	Gayley Ave	Bioretention (No Underdrain)	3,681
491043	Los Angeles	Glenrock Ave	Bioretention (No Underdrain)	601
491043	Los Angeles	Kinross Ave	Bioretention (No Underdrain)	50
491043	Los Angeles	Landfair Ave	Bioretention (No Underdrain)	2,048
491043	Los Angeles	Le Conte Ave	Bioretention (No Underdrain)	1,020
491043	Los Angeles	Levering Ave	Bioretention (No Underdrain)	1,686
491043	Los Angeles	Midvale Ave	Bioretention (No Underdrain)	1,165
491043	Los Angeles	North Ln	Bioretention (No Underdrain)	0
491043	Los Angeles	Ophir Dr	Bioretention (No Underdrain)	435
491043	Los Angeles	Roebing Ave	Bioretention (No Underdrain)	536
491043	Los Angeles	S Buenos Aires Dr	Bioretention (No Underdrain)	52
491043	Los Angeles	S Westwood Blvd	Bioretention (No Underdrain)	293
491043	Los Angeles	South Ln	Bioretention (No Underdrain)	33
491043	Los Angeles	Strathmore Dr	Bioretention (No Underdrain)	1,007
491043	Los Angeles	Strathmore Pl	Bioretention (No Underdrain)	103
491043	Los Angeles	Veteran Ave	Bioretention (No Underdrain)	3,207
491043	Los Angeles	Westwood Blvd	Bioretention (No Underdrain)	248
491043	Los Angeles	Weyburn Ave	Bioretention (No Underdrain)	653
491043	Los Angeles	Weyburn Pl	Bioretention (No Underdrain)	533
491044	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	682
491044	Los Angeles	Capello Way	Bioretention (No Underdrain)	209
491044	Los Angeles	Chalon Rd	Bioretention (No Underdrain)	212
491044	Los Angeles	Dolcedo Way	Bioretention (No Underdrain)	11
491044	Los Angeles	Fontenelle Way	Bioretention (No Underdrain)	130
491044	Los Angeles	Lausanne Rd	Bioretention (No Underdrain)	8
491044	Los Angeles	Levico Way	Bioretention (No Underdrain)	57
491044	Los Angeles	Lindamere Dr	Bioretention (No Underdrain)	350
491044	Los Angeles	Marymount Pl	Bioretention (No Underdrain)	74
491044	Los Angeles	Mulholland Dr	Bioretention (No Underdrain)	127
491044	Los Angeles	N Angola Ln	Bioretention (No Underdrain)	451
491044	Los Angeles	N Bernardine Ln	Bioretention (No Underdrain)	2,790
491044	Los Angeles	N Columbine Ln	Bioretention (No Underdrain)	464
491044	Los Angeles	N Hermos Ln	Bioretention (No Underdrain)	14
491044	Los Angeles	N Melody Ln	Bioretention (No Underdrain)	1,177
491044	Los Angeles	Ottone Way	Bioretention (No Underdrain)	14
491044	Los Angeles	Rocca Pl	Bioretention (No Underdrain)	7
491044	Los Angeles	Rocca Wy Pl	Bioretention (No Underdrain)	39

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491044	Los Angeles	Roscomare Rd	Bioretention (No Underdrain)	240
491044	Los Angeles	Siena Way	Bioretention (No Underdrain)	84
491044	Los Angeles	Somma Way	Bioretention (No Underdrain)	463
491044	Los Angeles	Stone Canyon Rd	Bioretention (No Underdrain)	7,735
491044	Los Angeles	Strada Corta Rd	Bioretention (No Underdrain)	666
491044	Los Angeles	Stradella Rd	Bioretention (No Underdrain)	1,206
491044	Los Angeles	Taranto Way	Bioretention (No Underdrain)	26
491044	Los Angeles	Tortuoso Way	Bioretention (No Underdrain)	39
491044	Los Angeles	Udine Way	Bioretention (No Underdrain)	67
491044	Los Angeles	Vestone Way	Bioretention (No Underdrain)	35
491044	Los Angeles	W Burford Ln	Bioretention (No Underdrain)	626
491044	Los Angeles	W Chrysanthemum Ln	Bioretention (No Underdrain)	355
491044	Los Angeles	W Cymbal Ln	Bioretention (No Underdrain)	848
491044	Los Angeles	W Hector Ln	Bioretention (No Underdrain)	79
491044	Los Angeles	W Louvain Ln	Bioretention (No Underdrain)	52
491044	Los Angeles	W Montier Ln	Bioretention (No Underdrain)	462
491044	Los Angeles	W Oletha Ln	Bioretention (No Underdrain)	234
491044	Los Angeles	W Ruthven Ln	Bioretention (No Underdrain)	319
491044	Los Angeles	W Scenario Ln	Bioretention (No Underdrain)	587
491044	Los Angeles	W Seabury Ln	Bioretention (No Underdrain)	162
491044	Los Angeles	W Selkirk Ln	Bioretention (No Underdrain)	730
491044	Los Angeles	W Tulip Ln	Bioretention (No Underdrain)	20
491044	Los Angeles	W Tupelo Ln	Bioretention (No Underdrain)	355
491044	Los Angeles	W Urlan Ln	Bioretention (No Underdrain)	176
491045	Los Angeles	Ambazac Way	Bioretention (No Underdrain)	97
491045	Los Angeles	Barnaby Rd	Bioretention (No Underdrain)	111
491045	Los Angeles	Bellagio Rd	Bioretention (No Underdrain)	1,176
491045	Los Angeles	Carcassone Rd	Bioretention (No Underdrain)	59
491045	Los Angeles	Chalon Rd	Bioretention (No Underdrain)	133
491045	Los Angeles	Dolo Way	Bioretention (No Underdrain)	5
491045	Los Angeles	Groverton Pl	Bioretention (No Underdrain)	607
491045	Los Angeles	N Perugia Way	Bioretention (No Underdrain)	1,049
491045	Los Angeles	Perugia Way	Bioretention (No Underdrain)	1,049
491045	Los Angeles	Sarbonne Rd	Bioretention (No Underdrain)	628
491045	Los Angeles	Siena Way	Bioretention (No Underdrain)	269
491045	Los Angeles	Stradella Rd	Bioretention (No Underdrain)	152
491049	Los Angeles	(unknown)	Bioretention (No Underdrain)	344
491049	Los Angeles	Altman Ave	Bioretention (No Underdrain)	355
491049	Los Angeles	Anchor Ave	Bioretention (No Underdrain)	1,549
491049	Los Angeles	Bagley Ave	Bioretention (No Underdrain)	1,700
491049	Los Angeles	Barbydell Dr	Bioretention (No Underdrain)	1,610
491049	Los Angeles	Beverly Dr	Bioretention (No Underdrain)	599
491049	Los Angeles	Beverlywood St	Bioretention (No Underdrain)	1,751
491049	Los Angeles	Beverwil Dr	Bioretention (No Underdrain)	4,973
491049	Los Angeles	Bolton Rd	Bioretention (No Underdrain)	827
491049	Los Angeles	Bridlevalle Dr	Bioretention (No Underdrain)	84
491049	Los Angeles	Burgen Ave	Bioretention (No Underdrain)	528
491049	Los Angeles	Cardiff Ave	Bioretention (No Underdrain)	2,921
491049	Los Angeles	Castle Heights Ave	Bioretention (No Underdrain)	6,192
491049	Los Angeles	Castle Heights Pl	Bioretention (No Underdrain)	793
491049	Los Angeles	Cattaraugus Ave	Bioretention (No Underdrain)	407
491049	Los Angeles	Charnock Ave	Bioretention (No Underdrain)	624
491049	Los Angeles	Cheviot Dr	Bioretention (No Underdrain)	446
491049	Los Angeles	Cisco St	Bioretention (No Underdrain)	279
491049	Los Angeles	Clarington Ave	Bioretention (No Underdrain)	3,158

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491049	Los Angeles	Club Dr	Bioretention (No Underdrain)	2,985
491049	Los Angeles	Cresta Dr	Bioretention (No Underdrain)	1,824
491049	Los Angeles	Culver Blvd	Bioretention (No Underdrain)	164
491049	Los Angeles	Danalda Dr	Bioretention (No Underdrain)	1,238
491049	Los Angeles	Dannyhill Dr	Bioretention (No Underdrain)	1,185
491049	Los Angeles	Delmas Ter	Bioretention (No Underdrain)	624
491049	Los Angeles	Dunn Dr	Bioretention (No Underdrain)	2,702
491049	Los Angeles	Duxbury Cir	Bioretention (No Underdrain)	1,547
491049	Los Angeles	Duxbury Ln	Bioretention (No Underdrain)	288
491049	Los Angeles	Duxbury Pl	Bioretention (No Underdrain)	188
491049	Los Angeles	Edith St	Bioretention (No Underdrain)	510
491049	Los Angeles	Faris Dr	Bioretention (No Underdrain)	810
491049	Los Angeles	Flint Ave	Bioretention (No Underdrain)	633
491049	Los Angeles	Forrester Dr	Bioretention (No Underdrain)	1,097
491049	Los Angeles	Girla Way	Bioretention (No Underdrain)	30
491049	Los Angeles	Guthrie Ct	Bioretention (No Underdrain)	5
491049	Los Angeles	Guthrie Dr	Bioretention (No Underdrain)	242
491049	Los Angeles	Hannum Dr	Bioretention (No Underdrain)	514
491049	Los Angeles	Hughes Ave	Bioretention (No Underdrain)	2,703
491049	Los Angeles	Kincardine Ave	Bioretention (No Underdrain)	427
491049	Los Angeles	Kirkside Rd	Bioretention (No Underdrain)	1,359
491049	Los Angeles	Krim Dr	Bioretention (No Underdrain)	12
491049	Los Angeles	Manning Ave	Bioretention (No Underdrain)	124
491049	Los Angeles	Manning Ct	Bioretention (No Underdrain)	438
491049	Los Angeles	Mc Connell Dr	Bioretention (No Underdrain)	2,387
491049	Los Angeles	Mc Connell Pl	Bioretention (No Underdrain)	317
491049	Los Angeles	Medill Pl	Bioretention (No Underdrain)	496
491049	Los Angeles	Monte Mar Dr	Bioretention (No Underdrain)	180
491049	Los Angeles	Monte Mar Pl	Bioretention (No Underdrain)	241
491049	Los Angeles	Monte Mar Ter	Bioretention (No Underdrain)	1,063
491049	Los Angeles	Motor Pl	Bioretention (No Underdrain)	418
491049	Los Angeles	National Blvd	Bioretention (No Underdrain)	2,051
491049	Los Angeles	Oakhurst Ave	Bioretention (No Underdrain)	1,527
491049	Los Angeles	Oakmore Rd	Bioretention (No Underdrain)	1,418
491049	Los Angeles	Palms Blvd	Bioretention (No Underdrain)	584
491049	Los Angeles	Patricia Ave	Bioretention (No Underdrain)	280
491049	Los Angeles	Provon Ln	Bioretention (No Underdrain)	657
491049	Los Angeles	Regent St	Bioretention (No Underdrain)	2,194
491049	Los Angeles	Rosbury Pl	Bioretention (No Underdrain)	293
491049	Los Angeles	Roxbury Dr	Bioretention (No Underdrain)	1,006
491049	Los Angeles	S Beverly Dr	Bioretention (No Underdrain)	3,363
491049	Los Angeles	S Canfield Ave	Bioretention (No Underdrain)	844
491049	Los Angeles	S Roxbury Dr	Bioretention (No Underdrain)	1,006
491049	Los Angeles	Sawyer St	Bioretention (No Underdrain)	1,025
491049	Los Angeles	Shelby Dr	Bioretention (No Underdrain)	1,308
491049	Los Angeles	Stellbar Pl	Bioretention (No Underdrain)	201
491049	Los Angeles	Tabor St	Bioretention (No Underdrain)	1,281
491049	Los Angeles	Vicar St	Bioretention (No Underdrain)	528
491049	Los Angeles	Watseka Ave	Bioretention (No Underdrain)	1,541
491049	Los Angeles	Woodbine St	Bioretention (No Underdrain)	330
491050	Los Angeles	(unknown)	Biofiltration (Underdrain)	872
491050	Los Angeles	Airdrome St	Biofiltration (Underdrain)	24
491050	Los Angeles	Alcott St	Biofiltration (Underdrain)	155
491050	Los Angeles	Beverwil Dr	Biofiltration (Underdrain)	2,899
491050	Los Angeles	Cashio St	Biofiltration (Underdrain)	939

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491050	Los Angeles	Edris Dr	Biofiltration (Underdrain)	1,792
491050	Los Angeles	el Camino Dr	Biofiltration (Underdrain)	0
491050	Los Angeles	Holcomb St	Biofiltration (Underdrain)	495
491050	Los Angeles	Horner St	Biofiltration (Underdrain)	197
491050	Los Angeles	Lockford St	Biofiltration (Underdrain)	713
491050	Los Angeles	Monte Mar Dr	Biofiltration (Underdrain)	1,951
491050	Los Angeles	Reeves St	Biofiltration (Underdrain)	552
491050	Los Angeles	Rexford Dr	Biofiltration (Underdrain)	1,987
491050	Los Angeles	Rodeo Dr	Biofiltration (Underdrain)	479
491050	Los Angeles	S Beverly Dr	Biofiltration (Underdrain)	2,065
491050	Los Angeles	S Camden Dr	Biofiltration (Underdrain)	270
491050	Los Angeles	S Crescent Dr	Biofiltration (Underdrain)	0
491050	Los Angeles	S el Camino Dr	Biofiltration (Underdrain)	0
491050	Los Angeles	S Elm Dr	Biofiltration (Underdrain)	671
491050	Los Angeles	S Rexford Dr	Biofiltration (Underdrain)	0
491050	Los Angeles	S Rodeo Dr	Biofiltration (Underdrain)	579
491050	Los Angeles	Saturn St	Biofiltration (Underdrain)	170
491050	Los Angeles	Smithwood Dr	Biofiltration (Underdrain)	769
491050	Los Angeles	W Pico Blvd	Biofiltration (Underdrain)	1,602
491050	Los Angeles	Whitworth Dr	Biofiltration (Underdrain)	921
491051	Los Angeles	(unknown)	Bioretention (No Underdrain)	383
491051	Los Angeles	Alcott St	Bioretention (No Underdrain)	486
491051	Los Angeles	Ambassador St	Bioretention (No Underdrain)	51
491051	Los Angeles	Ave of the Stars	Bioretention (No Underdrain)	2,832
491051	Los Angeles	Beverly Green Dr	Bioretention (No Underdrain)	772
491051	Los Angeles	Cashio St	Bioretention (No Underdrain)	751
491051	Los Angeles	Castello Pl	Bioretention (No Underdrain)	175
491051	Los Angeles	Century Hill	Bioretention (No Underdrain)	100
491051	Los Angeles	Century Park E	Bioretention (No Underdrain)	4,188
491051	Los Angeles	Century Park Ln	Bioretention (No Underdrain)	37
491051	Los Angeles	Club View Dr	Bioretention (No Underdrain)	1,111
491051	Los Angeles	Constellation Blvd	Bioretention (No Underdrain)	924
491051	Los Angeles	Dahiels Dr	Bioretention (No Underdrain)	79
491051	Los Angeles	Eastborne Ave	Bioretention (No Underdrain)	429
491051	Los Angeles	Empyrean Way	Bioretention (No Underdrain)	958
491051	Los Angeles	Ensley Ave	Bioretention (No Underdrain)	875
491051	Los Angeles	Galaxy Way	Bioretention (No Underdrain)	1,037
491051	Los Angeles	Heath Ave	Bioretention (No Underdrain)	79
491051	Los Angeles	Hillgreen Pl	Bioretention (No Underdrain)	4
491051	Los Angeles	Horner St	Bioretention (No Underdrain)	283
491051	Los Angeles	Motor Ave	Bioretention (No Underdrain)	1,238
491051	Los Angeles	Newman St	Bioretention (No Underdrain)	330
491051	Los Angeles	Peck Dr	Bioretention (No Underdrain)	1,007
491051	Los Angeles	Peerless Pl	Bioretention (No Underdrain)	172
491051	Los Angeles	Peg Pl	Bioretention (No Underdrain)	52
491051	Los Angeles	Roxbury Dr	Bioretention (No Underdrain)	2,793
491051	Los Angeles	S Ave of the Stars	Bioretention (No Underdrain)	2,680
491051	Los Angeles	S Bedford Dr	Bioretention (No Underdrain)	1,173
491051	Los Angeles	S Camden Dr	Bioretention (No Underdrain)	816
491051	Los Angeles	S Castello Ave	Bioretention (No Underdrain)	2,234
491051	Los Angeles	S Roxbury Dr	Bioretention (No Underdrain)	2,841
491051	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	1,638
491051	Los Angeles	Saturn St	Bioretention (No Underdrain)	430
491051	Los Angeles	Vidor Dr	Bioretention (No Underdrain)	922
491051	Los Angeles	W Empyrean Way	Bioretention (No Underdrain)	50

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491051	Los Angeles	W Galaxy Way	Bioretention (No Underdrain)	166
491051	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	3,025
491051	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	3,753
491051	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	1,834
491052	Los Angeles	Angelo Dr	Bioretention (No Underdrain)	274
491052	Los Angeles	Baroda Dr	Bioretention (No Underdrain)	684
491052	Los Angeles	Brooklawn Dr	Bioretention (No Underdrain)	345
491052	Los Angeles	Charing Cross Rd	Bioretention (No Underdrain)	788
491052	Los Angeles	Delfern Dr	Bioretention (No Underdrain)	1,722
491052	Los Angeles	Greendale Dr	Bioretention (No Underdrain)	98
491052	Los Angeles	N Angelo Dr	Bioretention (No Underdrain)	274
491052	Los Angeles	N Brooklawn Dr	Bioretention (No Underdrain)	345
491052	Los Angeles	N Faring Rd	Bioretention (No Underdrain)	1,669
491052	Los Angeles	N Mapleton Dr	Bioretention (No Underdrain)	188
491052	Los Angeles	S Mapleton Dr	Bioretention (No Underdrain)	1,423
491054	Los Angeles	(unknown)	Bioretention (No Underdrain)	31
491054	Los Angeles	Angelo Cir	Bioretention (No Underdrain)	213
491054	Los Angeles	Angelo Dr	Bioretention (No Underdrain)	1,435
491054	Los Angeles	Brooklawn Dr	Bioretention (No Underdrain)	474
491054	Los Angeles	Ladera Dr	Bioretention (No Underdrain)	823
491054	Los Angeles	Maybrook Dr	Bioretention (No Underdrain)	87
491054	Los Angeles	Monovale Dr	Bioretention (No Underdrain)	724
491054	Los Angeles	N Angelo Dr	Bioretention (No Underdrain)	1,435
491054	Los Angeles	N Brooklawn Dr	Bioretention (No Underdrain)	474
491054	Los Angeles	N Carolwood Dr	Bioretention (No Underdrain)	2,347
491054	Los Angeles	N Hanover Dr	Bioretention (No Underdrain)	206
491054	Los Angeles	N Maybrook Dr	Bioretention (No Underdrain)	87
491055	Los Angeles	(unknown)	Bioretention (No Underdrain)	252
491055	Los Angeles	Angelo Dr	Bioretention (No Underdrain)	447
491055	Los Angeles	Angelo View Dr	Bioretention (No Underdrain)	154
491055	Los Angeles	Antelope Rd	Bioretention (No Underdrain)	2
491055	Los Angeles	Anthony Pl	Bioretention (No Underdrain)	210
491055	Los Angeles	Arby Dr	Bioretention (No Underdrain)	316
491055	Los Angeles	Baywood Ct	Bioretention (No Underdrain)	42
491055	Los Angeles	Bella Dr	Bioretention (No Underdrain)	38
491055	Los Angeles	Benedict Canon	Bioretention (No Underdrain)	4,654
491055	Los Angeles	Benedict Canyon Dr	Bioretention (No Underdrain)	1,532
491055	Los Angeles	Beverly Estate Dr	Bioretention (No Underdrain)	99
491055	Los Angeles	Beverly Estates Dr	Bioretention (No Underdrain)	56
491055	Los Angeles	Beverly Estates Ter	Bioretention (No Underdrain)	15
491055	Los Angeles	Beverly View Dr	Bioretention (No Underdrain)	218
491055	Los Angeles	Blantyre Dr	Bioretention (No Underdrain)	598
491055	Los Angeles	Cardigan Pl	Bioretention (No Underdrain)	17
491055	Los Angeles	Cielo Dr	Bioretention (No Underdrain)	288
491055	Los Angeles	de Camp Dr	Bioretention (No Underdrain)	118
491055	Los Angeles	Decamp Dr	Bioretention (No Underdrain)	118
491055	Los Angeles	Deep Canyon Dr	Bioretention (No Underdrain)	206
491055	Los Angeles	Deep Canyon Pl	Bioretention (No Underdrain)	40
491055	Los Angeles	Delresto Dr	Bioretention (No Underdrain)	2
491055	Los Angeles	Drake Ln	Bioretention (No Underdrain)	114
491055	Los Angeles	Easton Dr	Bioretention (No Underdrain)	53
491055	Los Angeles	Ellison Dr	Bioretention (No Underdrain)	185
491055	Los Angeles	Eventide Pl	Bioretention (No Underdrain)	134
491055	Los Angeles	Firth Dr	Bioretention (No Underdrain)	70
491055	Los Angeles	Gloucester Dr	Bioretention (No Underdrain)	30

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491055	Los Angeles	Hensal Rd	Bioretention (No Underdrain)	10
491055	Los Angeles	Hilary Ln	Bioretention (No Underdrain)	158
491055	Los Angeles	Hillgrove Dr	Bioretention (No Underdrain)	804
491055	Los Angeles	Hillgrove Pl	Bioretention (No Underdrain)	66
491055	Los Angeles	Hutton Dr	Bioretention (No Underdrain)	3,081
491055	Los Angeles	Hutton Pl	Bioretention (No Underdrain)	147
491055	Los Angeles	Java Dr	Bioretention (No Underdrain)	40
491055	Los Angeles	Kirkland Dr	Bioretention (No Underdrain)	171
491055	Los Angeles	Lancer Ct	Bioretention (No Underdrain)	27
491055	Los Angeles	Lawrence Ln	Bioretention (No Underdrain)	281
491055	Los Angeles	Liebe Dr	Bioretention (No Underdrain)	242
491055	Los Angeles	Mark Pl	Bioretention (No Underdrain)	3
491055	Los Angeles	Maybrook Dr	Bioretention (No Underdrain)	2,349
491055	Los Angeles	Mossy Rock Cir	Bioretention (No Underdrain)	14
491055	Los Angeles	N Angelo Dr	Bioretention (No Underdrain)	447
491055	Los Angeles	N Bella Dr	Bioretention (No Underdrain)	38
491055	Los Angeles	N Benedict Canon Dr	Bioretention (No Underdrain)	255
491055	Los Angeles	N Benedict Canyon Dr	Bioretention (No Underdrain)	5,879
491055	Los Angeles	N Beverly Estate Dr	Bioretention (No Underdrain)	99
491055	Los Angeles	N Deep Canyon Dr	Bioretention (No Underdrain)	206
491055	Los Angeles	N Deep Canyon Pl	Bioretention (No Underdrain)	40
491055	Los Angeles	N Delresto Dr	Bioretention (No Underdrain)	2
491055	Los Angeles	N Eventide Pl	Bioretention (No Underdrain)	134
491055	Los Angeles	N Hilary Ln	Bioretention (No Underdrain)	158
491055	Los Angeles	N Hutton Dr	Bioretention (No Underdrain)	3,062
491055	Los Angeles	N Maybrook Dr	Bioretention (No Underdrain)	2,247
491055	Los Angeles	N Shadybrook Dr	Bioretention (No Underdrain)	331
491055	Los Angeles	N Sundial Ln	Bioretention (No Underdrain)	239
491055	Los Angeles	N Trudy Dr	Bioretention (No Underdrain)	26
491055	Los Angeles	N Wallingford Dr	Bioretention (No Underdrain)	290
491055	Los Angeles	Oak Pass Rd	Bioretention (No Underdrain)	331
491055	Los Angeles	Philbert Dr	Bioretention (No Underdrain)	9
491055	Los Angeles	Portola Dr	Bioretention (No Underdrain)	47
491055	Los Angeles	Rimmele Dr	Bioretention (No Underdrain)	15
491055	Los Angeles	Shadybrook Dr	Bioretention (No Underdrain)	1,217
491055	Los Angeles	Stowell Ln	Bioretention (No Underdrain)	3
491055	Los Angeles	Sundial Ln	Bioretention (No Underdrain)	239
491055	Los Angeles	Trudy Dr	Bioretention (No Underdrain)	26
491055	Los Angeles	W Antelope Rd	Bioretention (No Underdrain)	38
491055	Los Angeles	W Cardigan Pl	Bioretention (No Underdrain)	17
491055	Los Angeles	W Cielo Dr	Bioretention (No Underdrain)	241
491055	Los Angeles	W Gloucester Dr	Bioretention (No Underdrain)	30
491055	Los Angeles	W Hillgrove Dr	Bioretention (No Underdrain)	311
491055	Los Angeles	W Liebe Dr	Bioretention (No Underdrain)	242
491055	Los Angeles	W Stowell Ln	Bioretention (No Underdrain)	3
491055	Los Angeles	W Wendover Dr	Bioretention (No Underdrain)	8
491055	Los Angeles	W Westwanda Dr	Bioretention (No Underdrain)	331
491055	Los Angeles	Wallingford Dr	Bioretention (No Underdrain)	290
491055	Los Angeles	Wanda Park Dr	Bioretention (No Underdrain)	54
491055	Los Angeles	Wendover Dr	Bioretention (No Underdrain)	8
491055	Los Angeles	Westwanda Dr	Bioretention (No Underdrain)	331
491055	Los Angeles	Yoakum Dr	Bioretention (No Underdrain)	375
491056	Los Angeles	Beth Pl	Bioretention (No Underdrain)	26
491056	Los Angeles	Beverly Grove Dr	Bioretention (No Underdrain)	185
491056	Los Angeles	Curwood Pl	Bioretention (No Underdrain)	119

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491056	Los Angeles	Ferrari Dr	Bioretention (No Underdrain)	220
491056	Los Angeles	Glenside Pl	Bioretention (No Underdrain)	21
491056	Los Angeles	High Ridge Dr	Bioretention (No Underdrain)	607
491056	Los Angeles	High Ridge Pl	Bioretention (No Underdrain)	18
491056	Los Angeles	Highridge Dr	Bioretention (No Underdrain)	607
491056	Los Angeles	Highridge Pl	Bioretention (No Underdrain)	18
491056	Los Angeles	Millboro Pl	Bioretention (No Underdrain)	184
491056	Los Angeles	N Tower Grove Ln	Bioretention (No Underdrain)	81
491056	Los Angeles	Peavine Dr	Bioretention (No Underdrain)	52
491056	Los Angeles	San Cir	Bioretention (No Underdrain)	160
491056	Los Angeles	San Ysidro Dr	Bioretention (No Underdrain)	4,409
491056	Los Angeles	Shangri la Dr	Bioretention (No Underdrain)	16
491056	Los Angeles	Stan Pl	Bioretention (No Underdrain)	76
491056	Los Angeles	Summit Dr	Bioretention (No Underdrain)	78
491056	Los Angeles	Summitridge Dr	Bioretention (No Underdrain)	131
491056	Los Angeles	Tower Grove Dr	Bioretention (No Underdrain)	1,045
491056	Los Angeles	Tower Rd	Bioretention (No Underdrain)	25
491056	Los Angeles	W Beverly Grove Dr	Bioretention (No Underdrain)	185
491057	Los Angeles	Altridge Dr	Bioretention (No Underdrain)	9
491057	Los Angeles	Blueridge Dr	Bioretention (No Underdrain)	40
491057	Los Angeles	Dawn Ridge Dr	Bioretention (No Underdrain)	13
491057	Los Angeles	Dawnridge Dr	Bioretention (No Underdrain)	13
491058	Los Angeles	Beverly Park Dr	Bioretention (No Underdrain)	20
491058	Los Angeles	Beverly Park St	Bioretention (No Underdrain)	2
491058	Los Angeles	Beverly Pl	Bioretention (No Underdrain)	50
491058	Los Angeles	Desford Dr	Bioretention (No Underdrain)	79
491058	Los Angeles	Donhill Dr	Bioretention (No Underdrain)	165
491058	Los Angeles	Franklin Canyon Dr	Bioretention (No Underdrain)	91
491058	Los Angeles	High Ridge Dr	Bioretention (No Underdrain)	13
491058	Los Angeles	Highland Gorge Dr	Bioretention (No Underdrain)	28
491058	Los Angeles	Highland Gorge Trl	Bioretention (No Underdrain)	28
491058	Los Angeles	Highridge Dr	Bioretention (No Underdrain)	13
491058	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	17
491058	Los Angeles	Lake Franklin Dr	Bioretention (No Underdrain)	12
491058	Los Angeles	Laurel Way	Bioretention (No Underdrain)	51
491058	Los Angeles	N Beverly Dr	Bioretention (No Underdrain)	3,727
491058	Los Angeles	N Franklin Canyon Dr	Bioretention (No Underdrain)	91
491058	Los Angeles	Robmar Dr	Bioretention (No Underdrain)	26
491058	Los Angeles	Summitridge Dr	Bioretention (No Underdrain)	314
491058	Los Angeles	Sutton Way	Bioretention (No Underdrain)	53
491058	Los Angeles	W Lake Franklin Dr	Bioretention (No Underdrain)	55
491058	Los Angeles	W Monte Vista Way	Bioretention (No Underdrain)	30
491059	Los Angeles	(unknown)	Bioretention (No Underdrain)	1
491059	Los Angeles	Alto Cedro Dr	Bioretention (No Underdrain)	110
491059	Los Angeles	Arrowood Dr	Bioretention (No Underdrain)	57
491059	Los Angeles	Bowmont Dr	Bioretention (No Underdrain)	482
491059	Los Angeles	Calle Juela Dr	Bioretention (No Underdrain)	29
491059	Los Angeles	Cedarbrook Dr	Bioretention (No Underdrain)	130
491059	Los Angeles	Eden Dr	Bioretention (No Underdrain)	45
491059	Los Angeles	Eden Pl	Bioretention (No Underdrain)	20
491059	Los Angeles	el Roble Ln	Bioretention (No Underdrain)	28
491059	Los Angeles	Gloaming Dr	Bioretention (No Underdrain)	180
491059	Los Angeles	Hazen Dr	Bioretention (No Underdrain)	816
491059	Los Angeles	Heather Rd	Bioretention (No Underdrain)	303
491059	Los Angeles	Kimridge Rd	Bioretention (No Underdrain)	560

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491059	Los Angeles	Leander Pl	Bioretention (No Underdrain)	153
491059	Los Angeles	Lindacrest Dr	Bioretention (No Underdrain)	330
491059	Los Angeles	Lloydcrest Dr	Bioretention (No Underdrain)	113
491059	Los Angeles	Loma Vista Dr	Bioretention (No Underdrain)	56
491059	Los Angeles	N Bowmont Dr	Bioretention (No Underdrain)	331
491059	Los Angeles	Noel Pl	Bioretention (No Underdrain)	107
491059	Los Angeles	Tullis Dr	Bioretention (No Underdrain)	180
491059	Los Angeles	W Alto Cedro Dr	Bioretention (No Underdrain)	21
491059	Los Angeles	W Cherokee Ln	Bioretention (No Underdrain)	18
491059	Los Angeles	W Hazen Dr	Bioretention (No Underdrain)	784
491060	Los Angeles	Franklin Canyon Dr	Bioretention (No Underdrain)	339
491060	Los Angeles	Hidden Valley Pl	Bioretention (No Underdrain)	15
491060	Los Angeles	Lake Dr	Bioretention (No Underdrain)	420
491060	Los Angeles	Mulholland Dr	Bioretention (No Underdrain)	21
491061	Los Angeles	(unknown)	Bioretention (No Underdrain)	870
491061	Los Angeles	10th Ave	Bioretention (No Underdrain)	927
491061	Los Angeles	11th Ave	Bioretention (No Underdrain)	733
491061	Los Angeles	12th Ave	Bioretention (No Underdrain)	710
491061	Los Angeles	13th Ave	Bioretention (No Underdrain)	560
491061	Los Angeles	7th Ave	Bioretention (No Underdrain)	1,568
491061	Los Angeles	8th Ave	Bioretention (No Underdrain)	1,585
491061	Los Angeles	9th Ave	Bioretention (No Underdrain)	1,577
491061	Los Angeles	Adams Blvd	Bioretention (No Underdrain)	0
491061	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	4,801
491061	Los Angeles	Bangor St	Bioretention (No Underdrain)	2,254
491061	Los Angeles	Blackwelder St	Bioretention (No Underdrain)	3,607
491061	Los Angeles	Boden St	Bioretention (No Underdrain)	1,912
491061	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	3,255
491061	Los Angeles	Carlin St	Bioretention (No Underdrain)	2,287
491061	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	2,938
491061	Los Angeles	Chesapeake Ave	Bioretention (No Underdrain)	1,391
491061	Los Angeles	Claudina Ave	Bioretention (No Underdrain)	922
491061	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	3,298
491061	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	1,245
491061	Los Angeles	Duray Pl	Bioretention (No Underdrain)	1,389
491061	Los Angeles	Edgehill Dr	Bioretention (No Underdrain)	17
491061	Los Angeles	Fairfax Ave	Bioretention (No Underdrain)	1,487
491061	Los Angeles	Farmdale Ave	Bioretention (No Underdrain)	1,253
491061	Los Angeles	Ferndale St	Bioretention (No Underdrain)	2,686
491061	Los Angeles	Field Ave	Bioretention (No Underdrain)	1,216
491061	Los Angeles	Fir St	Bioretention (No Underdrain)	423
491061	Los Angeles	Geer St	Bioretention (No Underdrain)	2,110
491061	Los Angeles	Glennie Ln	Bioretention (No Underdrain)	320
491061	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	4,574
491061	Los Angeles	Hickory St	Bioretention (No Underdrain)	1,280
491061	Los Angeles	Highland Dr	Bioretention (No Underdrain)	1,115
491061	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	4,505
491061	Los Angeles	Homeside Ave	Bioretention (No Underdrain)	2,246
491061	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	4,488
491061	Los Angeles	la Cienega Pl	Bioretention (No Underdrain)	694
491061	Los Angeles	Lucerne Ave	Bioretention (No Underdrain)	1,040
491061	Los Angeles	Montclair St	Bioretention (No Underdrain)	1,103
491061	Los Angeles	Potomac Ave	Bioretention (No Underdrain)	1,328
491061	Los Angeles	Roseland St	Bioretention (No Underdrain)	2,441
491061	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	760

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491061	Los Angeles	S Buckingham Rd	Bioretention (No Underdrain)	57
491061	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	3,444
491061	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	4,931
491061	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	4,959
491061	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	1,841
491061	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	3,590
491061	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	64
491061	Los Angeles	S Genesee Ave	Bioretention (No Underdrain)	2,282
491061	Los Angeles	S Harcourt Ave	Bioretention (No Underdrain)	5,537
491061	Los Angeles	S Highland Ave	Bioretention (No Underdrain)	1,243
491061	Los Angeles	S Highland Dr	Bioretention (No Underdrain)	466
491061	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	4,598
491061	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	1,188
491061	Los Angeles	S Longwood Ave	Bioretention (No Underdrain)	2,878
491061	Los Angeles	S Lucerne Ave	Bioretention (No Underdrain)	46
491061	Los Angeles	S Mansfield Ave	Bioretention (No Underdrain)	3,815
491061	Los Angeles	S Marvin Ave	Bioretention (No Underdrain)	1,616
491061	Los Angeles	S Orange Dr	Bioretention (No Underdrain)	5,339
491061	Los Angeles	S Palm Grove Ave	Bioretention (No Underdrain)	5,214
491061	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	5,555
491061	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	3,112
491061	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	5,296
491061	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	1,923
491061	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	4,798
491061	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	3,081
491061	Los Angeles	S West Blvd	Bioretention (No Underdrain)	435
491061	Los Angeles	S West View St	Bioretention (No Underdrain)	747
491061	Los Angeles	Smiley Dr	Bioretention (No Underdrain)	3,398
491061	Los Angeles	Somerset Dr	Bioretention (No Underdrain)	843
491061	Los Angeles	South Virginia Rd	Bioretention (No Underdrain)	24
491061	Los Angeles	Spokane St	Bioretention (No Underdrain)	1,052
491061	Los Angeles	Thurman Ave	Bioretention (No Underdrain)	2,246
491061	Los Angeles	Vineyard Ave	Bioretention (No Underdrain)	5,868
491061	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	3,222
491061	Los Angeles	W 20th St	Bioretention (No Underdrain)	3,086
491061	Los Angeles	W 21st St	Bioretention (No Underdrain)	4,968
491061	Los Angeles	W 23rd St	Bioretention (No Underdrain)	3,968
491061	Los Angeles	W 25th St	Bioretention (No Underdrain)	3,023
491061	Los Angeles	W 28th St	Bioretention (No Underdrain)	3,835
491061	Los Angeles	W 29th St	Bioretention (No Underdrain)	1,482
491061	Los Angeles	W 30th St	Bioretention (No Underdrain)	1,856
491061	Los Angeles	W Adams Blvd	Bioretention (No Underdrain)	13,101
491061	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	3,984
491061	Los Angeles	W View St	Bioretention (No Underdrain)	5,048
491061	Los Angeles	W View St S	Bioretention (No Underdrain)	559
491061	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	536
491061	Los Angeles	Washington Blvd	Bioretention (No Underdrain)	1
491061	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	3,140
491061	Los Angeles	West Blvd	Bioretention (No Underdrain)	4,601
491061	Los Angeles	Westhaven St	Bioretention (No Underdrain)	4,927
491062	Los Angeles	(unknown)	Bioretention (No Underdrain)	87
491062	Los Angeles	Bagley Ave	Bioretention (No Underdrain)	3,924
491062	Los Angeles	Beverlywood St	Bioretention (No Underdrain)	555
491062	Los Angeles	Cardiff Ave	Bioretention (No Underdrain)	1,621
491062	Los Angeles	Cattaraugus Ave	Bioretention (No Underdrain)	2,618

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491062	Los Angeles	David Ave	Bioretention (No Underdrain)	500
491062	Los Angeles	Ellis Ave	Bioretention (No Underdrain)	279
491062	Los Angeles	Exposition Blvd	Bioretention (No Underdrain)	232
491062	Los Angeles	Exposition Boulevard S R	Bioretention (No Underdrain)	85
491062	Los Angeles	Exposition Dr	Bioretention (No Underdrain)	39
491062	Los Angeles	Gibson St	Bioretention (No Underdrain)	962
491062	Los Angeles	Guthrie Cir	Bioretention (No Underdrain)	779
491062	Los Angeles	Guthrie Ct	Bioretention (No Underdrain)	282
491062	Los Angeles	Guthrie Dr	Bioretention (No Underdrain)	860
491062	Los Angeles	Hargis St	Bioretention (No Underdrain)	1,997
491062	Los Angeles	Helms Pl	Bioretention (No Underdrain)	30
491062	Los Angeles	Hillsboro Dr	Bioretention (No Underdrain)	5
491062	Los Angeles	Hoke Ave	Bioretention (No Underdrain)	62
491062	Los Angeles	Kincardine Ave	Bioretention (No Underdrain)	2,386
491062	Los Angeles	Kramerwood Pl	Bioretention (No Underdrain)	542
491062	Los Angeles	Livonia Ave	Bioretention (No Underdrain)	1,340
491062	Los Angeles	National Blvd	Bioretention (No Underdrain)	1,936
491062	Los Angeles	Oakhurst Ave	Bioretention (No Underdrain)	1,784
491062	Los Angeles	Olin St	Bioretention (No Underdrain)	971
491062	Los Angeles	Robertson Pl	Bioretention (No Underdrain)	626
491062	Los Angeles	S Beverly Dr	Bioretention (No Underdrain)	2,011
491062	Los Angeles	S Canfield Ave	Bioretention (No Underdrain)	4,604
491062	Los Angeles	S Durango Ave	Bioretention (No Underdrain)	1,402
491062	Los Angeles	S Robertson Blvd	Bioretention (No Underdrain)	2,485
491062	Los Angeles	W 24th St	Bioretention (No Underdrain)	15
491062	Los Angeles	Willat Ave	Bioretention (No Underdrain)	10
491063	Los Angeles	(unknown)	Bioretention (No Underdrain)	261
491063	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	20
491063	Los Angeles	Apple St	Bioretention (No Underdrain)	18
491063	Los Angeles	Bangor St	Bioretention (No Underdrain)	591
491063	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	1,191
491063	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	1,468
491063	Los Angeles	Cochran Pl	Bioretention (No Underdrain)	266
491063	Los Angeles	Cologne St	Bioretention (No Underdrain)	58
491063	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	1,645
491063	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	116
491063	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	836
491063	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	256
491063	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	304
491063	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	1,410
491063	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	201
491063	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	129
491063	Los Angeles	S Glennie Ln	Bioretention (No Underdrain)	231
491063	Los Angeles	S Highland Ave	Bioretention (No Underdrain)	66
491063	Los Angeles	S Highland Dr	Bioretention (No Underdrain)	128
491063	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	116
491063	Los Angeles	S Longwood Ave	Bioretention (No Underdrain)	144
491063	Los Angeles	S Mansfield Ave	Bioretention (No Underdrain)	55
491063	Los Angeles	S Marvin Ave	Bioretention (No Underdrain)	1,281
491063	Los Angeles	S Orange Dr	Bioretention (No Underdrain)	165
491063	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	616
491063	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	1,001
491063	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	31
491063	Los Angeles	Thurman Ave	Bioretention (No Underdrain)	1,402
491063	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	37

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491063	Los Angeles	W View St	Bioretention (No Underdrain)	147
491063	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	6,833
491067	Los Angeles	(unknown)	Bioretention (No Underdrain)	1,692
491067	Los Angeles	10th Ave	Bioretention (No Underdrain)	3,587
491067	Los Angeles	11th Ave	Bioretention (No Underdrain)	6,845
491067	Los Angeles	7th Ave	Bioretention (No Underdrain)	6
491067	Los Angeles	8th Ave	Bioretention (No Underdrain)	1,806
491067	Los Angeles	9th Ave	Bioretention (No Underdrain)	2,784
491067	Los Angeles	Abourne Rd	Bioretention (No Underdrain)	1,010
491067	Los Angeles	Aladdin St	Bioretention (No Underdrain)	952
491067	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	921
491067	Los Angeles	Angeles Vista Blvd	Bioretention (No Underdrain)	44
491067	Los Angeles	August St	Bioretention (No Underdrain)	2,373
491067	Los Angeles	Bowcroft St	Bioretention (No Underdrain)	1,464
491067	Los Angeles	Bowesfield St	Bioretention (No Underdrain)	1,625
491067	Los Angeles	Brushton St	Bioretention (No Underdrain)	1,382
491067	Los Angeles	Brynhurst Ave	Bioretention (No Underdrain)	1,414
491067	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	2,598
491067	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	2,194
491067	Los Angeles	Cherrywood Ave	Bioretention (No Underdrain)	229
491067	Los Angeles	Chesley Ave	Bioretention (No Underdrain)	1,210
491067	Los Angeles	Clemson St	Bioretention (No Underdrain)	1,813
491067	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	1,829
491067	Los Angeles	Coco Ave	Bioretention (No Underdrain)	1,759
491067	Los Angeles	Coliseum St	Bioretention (No Underdrain)	8,435
491067	Los Angeles	Corbet St	Bioretention (No Underdrain)	1,649
491067	Los Angeles	Corbett St	Bioretention (No Underdrain)	1,649
491067	Los Angeles	Creed Ave	Bioretention (No Underdrain)	1,176
491067	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	7,762
491067	Los Angeles	Degnan Blvd	Bioretention (No Underdrain)	2,681
491067	Los Angeles	Don Alanis Pl	Bioretention (No Underdrain)	117
491067	Los Angeles	Don Alberto Pl	Bioretention (No Underdrain)	141
491067	Los Angeles	Don Alegre Pl	Bioretention (No Underdrain)	222
491067	Los Angeles	Don Arellanes Dr	Bioretention (No Underdrain)	362
491067	Los Angeles	Don Arturo Pl	Bioretention (No Underdrain)	221
491067	Los Angeles	Don Carlos Dr	Bioretention (No Underdrain)	959
491067	Los Angeles	Don Cota Pl	Bioretention (No Underdrain)	116
491067	Los Angeles	Don Diablo Dr	Bioretention (No Underdrain)	505
491067	Los Angeles	Don Diego Dr	Bioretention (No Underdrain)	840
491067	Los Angeles	Don Felipe Dr	Bioretention (No Underdrain)	4,418
491067	Los Angeles	Don Ibarra Pl	Bioretention (No Underdrain)	167
491067	Los Angeles	Don Jose Dr	Bioretention (No Underdrain)	990
491067	Los Angeles	Don Lorenzo Dr	Bioretention (No Underdrain)	757
491067	Los Angeles	Don Luis Dr	Bioretention (No Underdrain)	1,964
491067	Los Angeles	Don Mariano Dr	Bioretention (No Underdrain)	885
491067	Los Angeles	Don Miguel Dr	Bioretention (No Underdrain)	2,860
491067	Los Angeles	Don Milagro Dr	Bioretention (No Underdrain)	1,373
491067	Los Angeles	Don Ortega Pl	Bioretention (No Underdrain)	374
491067	Los Angeles	Don Pablo Pl	Bioretention (No Underdrain)	253
491067	Los Angeles	Don Porfirio Pl	Bioretention (No Underdrain)	405
491067	Los Angeles	Don Quixote Dr	Bioretention (No Underdrain)	457
491067	Los Angeles	Don Ricardo Dr	Bioretention (No Underdrain)	4
491067	Los Angeles	Don Rodolfo Pl	Bioretention (No Underdrain)	278
491067	Los Angeles	Don Timoteo Dr	Bioretention (No Underdrain)	694
491067	Los Angeles	Don Tomaso Dr	Bioretention (No Underdrain)	2,401

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491067	Los Angeles	Don Tonito Dr	Bioretention (No Underdrain)	594
491067	Los Angeles	Don Valdes Dr	Bioretention (No Underdrain)	1,093
491067	Los Angeles	Don Zarembo Dr	Bioretention (No Underdrain)	1,892
491067	Los Angeles	Duray Pl	Bioretention (No Underdrain)	507
491067	Los Angeles	Edgehill Dr	Bioretention (No Underdrain)	1,479
491067	Los Angeles	el Mirador Dr	Bioretention (No Underdrain)	293
491067	Los Angeles	Enville Pl	Bioretention (No Underdrain)	371
491067	Los Angeles	Fallsgrove St	Bioretention (No Underdrain)	1,181
491067	Los Angeles	Garthwaite Ave	Bioretention (No Underdrain)	1,130
491067	Los Angeles	Gelber Pl	Bioretention (No Underdrain)	645
491067	Los Angeles	Gibraltar Ave	Bioretention (No Underdrain)	892
491067	Los Angeles	Glenford St	Bioretention (No Underdrain)	248
491067	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	1,376
491067	Los Angeles	Highlight Pl	Bioretention (No Underdrain)	616
491067	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	4,400
491067	Los Angeles	Homeland Dr	Bioretention (No Underdrain)	180
491067	Los Angeles	Hubert Ave	Bioretention (No Underdrain)	209
491067	Los Angeles	Hubert Walk	Bioretention (No Underdrain)	252
491067	Los Angeles	Kalsman Dr	Bioretention (No Underdrain)	50
491067	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	5,997
491067	Los Angeles	Leimert Blvd	Bioretention (No Underdrain)	2,701
491067	Los Angeles	Lenawee Ave	Bioretention (No Underdrain)	929
491067	Los Angeles	Linscott Pl	Bioretention (No Underdrain)	59
491067	Los Angeles	Lockland Dr	Bioretention (No Underdrain)	859
491067	Los Angeles	Lockland Pl	Bioretention (No Underdrain)	192
491067	Los Angeles	Mantova Dr	Bioretention (No Underdrain)	938
491067	Los Angeles	Marlton Ave	Bioretention (No Underdrain)	2,480
491067	Los Angeles	Martin Luther King Jr Blvd	Bioretention (No Underdrain)	11,937
491067	Los Angeles	Mc Clung Dr	Bioretention (No Underdrain)	2,119
491067	Los Angeles	McClung Dr	Bioretention (No Underdrain)	2,119
491067	Los Angeles	Nicolet Ave	Bioretention (No Underdrain)	2,540
491067	Los Angeles	Olmsted Ave	Bioretention (No Underdrain)	193
491067	Los Angeles	Orange Pl	Bioretention (No Underdrain)	740
491067	Los Angeles	Padilla Pl	Bioretention (No Underdrain)	133
491067	Los Angeles	Palmwood Dr	Bioretention (No Underdrain)	773
491067	Los Angeles	Palmyra Rd	Bioretention (No Underdrain)	915
491067	Los Angeles	Pinafore St	Bioretention (No Underdrain)	2,355
491067	Los Angeles	Potomac Ave	Bioretention (No Underdrain)	1,414
491067	Los Angeles	Punta Alta Dr	Bioretention (No Underdrain)	1,235
491067	Los Angeles	Rodeo Dr	Bioretention (No Underdrain)	4
491067	Los Angeles	Rodeo Rd	Bioretention (No Underdrain)	6,857
491067	Los Angeles	Roxanne Ave	Bioretention (No Underdrain)	532
491067	Los Angeles	S 10th Ave	Bioretention (No Underdrain)	30
491067	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	1,527
491067	Los Angeles	S Buckingham Rd	Bioretention (No Underdrain)	60
491067	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	1,252
491067	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	3,677
491067	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	1,433
491067	Los Angeles	S Crenshaw Blvd	Bioretention (No Underdrain)	12,196
491067	Los Angeles	S Degnan Blvd	Bioretention (No Underdrain)	1,794
491067	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	546
491067	Los Angeles	S Edgehill Dr	Bioretention (No Underdrain)	19
491067	Los Angeles	S Genesee Ave	Bioretention (No Underdrain)	1,196
491067	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	10,889
491067	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	4,803

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491067	Los Angeles	S Leimert Blvd	Bioretention (No Underdrain)	1,910
491067	Los Angeles	S Muirfield Rd	Bioretention (No Underdrain)	2,068
491067	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	1,499
491067	Los Angeles	S Orange Dr	Bioretention (No Underdrain)	1,764
491067	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	1,267
491067	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	1,536
491067	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	2,647
491067	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	1,526
491067	Los Angeles	Sanchez Dr	Bioretention (No Underdrain)	1,725
491067	Los Angeles	Santa Rosalia Dr	Bioretention (No Underdrain)	5,076
491067	Los Angeles	Santo Tomas Dr	Bioretention (No Underdrain)	2,999
491067	Los Angeles	Somerset Dr	Bioretention (No Underdrain)	1,263
491067	Los Angeles	Stevely Ave	Bioretention (No Underdrain)	1,904
491067	Los Angeles	Stillwater Dr	Bioretention (No Underdrain)	87
491067	Los Angeles	Stocker St	Bioretention (No Underdrain)	3,267
491067	Los Angeles	Sunlight Pl	Bioretention (No Underdrain)	2,018
491067	Los Angeles	Tacana St	Bioretention (No Underdrain)	501
491067	Los Angeles	Terraza Dr	Bioretention (No Underdrain)	845
491067	Los Angeles	Ursula Ave	Bioretention (No Underdrain)	1,342
491067	Los Angeles	Veronica St	Bioretention (No Underdrain)	731
491067	Los Angeles	Village Green	Bioretention (No Underdrain)	102
491067	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	338
491067	Los Angeles	W 41st St	Bioretention (No Underdrain)	1,373
491067	Los Angeles	W 43rd Pl	Bioretention (No Underdrain)	2,022
491067	Los Angeles	W 43rd St	Bioretention (No Underdrain)	1,425
491067	Los Angeles	W 46th St	Bioretention (No Underdrain)	1,400
491067	Los Angeles	W 48th St	Bioretention (No Underdrain)	1,664
491067	Los Angeles	W 50th St	Bioretention (No Underdrain)	1,859
491067	Los Angeles	W 52nd St	Bioretention (No Underdrain)	3,415
491067	Los Angeles	W 54th St	Bioretention (No Underdrain)	3,119
491067	Los Angeles	W 57th St	Bioretention (No Underdrain)	458
491067	Los Angeles	W Don Lorenzo Dr	Bioretention (No Underdrain)	104
491067	Los Angeles	W Don Quixote Dr	Bioretention (No Underdrain)	29
491067	Los Angeles	W Don Tapia Pl	Bioretention (No Underdrain)	72
491067	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	251
491067	Los Angeles	W Martin Luther King	Bioretention (No Underdrain)	1,200
491067	Los Angeles	W Martin Luther King Jr Blvd	Bioretention (No Underdrain)	11,937
491067	Los Angeles	W Rodeo Rd	Bioretention (No Underdrain)	454
491067	Los Angeles	W Stocker St	Bioretention (No Underdrain)	2,218
491067	Los Angeles	W Vernon Ave	Bioretention (No Underdrain)	2,007
491067	Los Angeles	Weatherford Dr	Bioretention (No Underdrain)	388
491067	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	252
491067	Los Angeles	Wenlock St	Bioretention (No Underdrain)	692
491067	Los Angeles	West Blvd	Bioretention (No Underdrain)	2,914
491067	Los Angeles	Westmount Ave	Bioretention (No Underdrain)	179
491069	Los Angeles	(unknown)	Bioretention (No Underdrain)	89
491069	Los Angeles	Bowcroft St	Bioretention (No Underdrain)	953
491069	Los Angeles	Holdrege Ave	Bioretention (No Underdrain)	730
491069	Los Angeles	Lenawee Ave	Bioretention (No Underdrain)	318
491069	Los Angeles	Rodeo Dr	Bioretention (No Underdrain)	542
491069	Los Angeles	Rodeo Rd	Bioretention (No Underdrain)	356
491069	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	1,021
491069	Los Angeles	W Rodeo Rd	Bioretention (No Underdrain)	3
491070	Los Angeles	(unknown)	Bioretention (No Underdrain)	26
491070	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	800

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491070	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	1
491070	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	5
491070	Los Angeles	Farmdale Ave	Bioretention (No Underdrain)	771
491070	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	93
491070	Los Angeles	la Cienega Pl	Bioretention (No Underdrain)	10
491070	Los Angeles	Linscott Pl	Bioretention (No Underdrain)	28
491070	Los Angeles	Martin Luther King Jr Blvd	Bioretention (No Underdrain)	2,728
491070	Los Angeles	Nicolet Ave	Bioretention (No Underdrain)	473
491070	Los Angeles	Rodeo Ln	Bioretention (No Underdrain)	1,336
491070	Los Angeles	Rodeo Rd	Bioretention (No Underdrain)	2,569
491070	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	670
491070	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	651
491070	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	635
491070	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	93
491070	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	6
491070	Los Angeles	S Nicolet Ave	Bioretention (No Underdrain)	55
491070	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	685
491070	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	1,064
491070	Los Angeles	Sunlight Pl	Bioretention (No Underdrain)	556
491070	Los Angeles	W Martin Luther King	Bioretention (No Underdrain)	1,009
491070	Los Angeles	W Martin Luther King Jr Blvd	Bioretention (No Underdrain)	2,728
491070	Los Angeles	W Rodeo Rd	Bioretention (No Underdrain)	1,688
491071	Los Angeles	(unknown)	Bioretention (No Underdrain)	134
491071	Los Angeles	10th Ave	Bioretention (No Underdrain)	2,971
491071	Los Angeles	11th Ave	Bioretention (No Underdrain)	2,980
491071	Los Angeles	12th Ave	Bioretention (No Underdrain)	2,691
491071	Los Angeles	2nd Ave	Bioretention (No Underdrain)	2,305
491071	Los Angeles	3rd Ave	Bioretention (No Underdrain)	2,298
491071	Los Angeles	4th Ave	Bioretention (No Underdrain)	1,982
491071	Los Angeles	5th Ave	Bioretention (No Underdrain)	1,874
491071	Los Angeles	6th Ave	Bioretention (No Underdrain)	1,743
491071	Los Angeles	7th Ave	Bioretention (No Underdrain)	1,601
491071	Los Angeles	8th Ave	Bioretention (No Underdrain)	1,388
491071	Los Angeles	9th Ave	Bioretention (No Underdrain)	2,285
491071	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	2,373
491071	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	2,362
491071	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	998
491071	Los Angeles	Chesapeake Ave	Bioretention (No Underdrain)	896
491071	Los Angeles	Chico St	Bioretention (No Underdrain)	29
491071	Los Angeles	Cimarron St	Bioretention (No Underdrain)	2,358
491071	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	3,196
491071	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	482
491071	Los Angeles	Denker Ave	Bioretention (No Underdrain)	906
491071	Los Angeles	Downey Way	Bioretention (No Underdrain)	7,812
491071	Los Angeles	Edgehill Dr	Bioretention (No Underdrain)	3,541
491071	Los Angeles	Farmdale Ave	Bioretention (No Underdrain)	489
491071	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	1,173
491071	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	1,065
491071	Los Angeles	Montclair St	Bioretention (No Underdrain)	1,634
491071	Los Angeles	Potomac Ave	Bioretention (No Underdrain)	1,229
491071	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	1,463
491071	Los Angeles	Rochester Cir	Bioretention (No Underdrain)	321
491071	Los Angeles	Rodeo Rd	Bioretention (No Underdrain)	1,111
491071	Los Angeles	Ruthelen St	Bioretention (No Underdrain)	1,124
491071	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	3,176

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491071	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	6
491071	Los Angeles	S Catalina Ave	Bioretention (No Underdrain)	387
491071	Los Angeles	S Catalina St	Bioretention (No Underdrain)	1,533
491071	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	2,654
491071	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	482
491071	Los Angeles	S la Salle Ave	Bioretention (No Underdrain)	482
491071	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	2,325
491071	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	2,756
491071	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	2,332
491071	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	1,734
491071	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	2,623
491071	Los Angeles	S Western Ave	Bioretention (No Underdrain)	2,681
491071	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	529
491071	Los Angeles	Somerset Dr	Bioretention (No Underdrain)	2,558
491071	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	2,427
491071	Los Angeles	W 27th St	Bioretention (No Underdrain)	1,235
491071	Los Angeles	W 28th St	Bioretention (No Underdrain)	761
491071	Los Angeles	W 29th St	Bioretention (No Underdrain)	3,146
491071	Los Angeles	W 30th St	Bioretention (No Underdrain)	4,449
491071	Los Angeles	W 35th Pl	Bioretention (No Underdrain)	6,585
491071	Los Angeles	W 35th St	Bioretention (No Underdrain)	1,357
491071	Los Angeles	W 36th Pl	Bioretention (No Underdrain)	7,812
491071	Los Angeles	W 36th St	Bioretention (No Underdrain)	13,549
491071	Los Angeles	W 37th Dr	Bioretention (No Underdrain)	4,228
491071	Los Angeles	W 37th Pl	Bioretention (No Underdrain)	8,574
491071	Los Angeles	W 37th St	Bioretention (No Underdrain)	6,300
491071	Los Angeles	W 38th Pl	Bioretention (No Underdrain)	311
491071	Los Angeles	W 38th St	Bioretention (No Underdrain)	2,408
491071	Los Angeles	W Adams Blvd	Bioretention (No Underdrain)	474
491071	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	5,711
491071	Los Angeles	Walton Ave	Bioretention (No Underdrain)	12
491071	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	2,494
491071	Los Angeles	West Blvd	Bioretention (No Underdrain)	994
491072	Los Angeles	10th Ave	Bioretention (No Underdrain)	812
491072	Los Angeles	11th Ave	Bioretention (No Underdrain)	104
491072	Los Angeles	12th Ave	Bioretention (No Underdrain)	133
491072	Los Angeles	9th Ave	Bioretention (No Underdrain)	37
491072	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	1,566
491072	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	1,203
491072	Los Angeles	W 21st St	Bioretention (No Underdrain)	1,311
491072	Los Angeles	W 22nd Pl	Bioretention (No Underdrain)	911
491072	Los Angeles	W 23rd St	Bioretention (No Underdrain)	1,700
491073	Los Angeles	(unknown)	Bioretention (No Underdrain)	3,963
491073	Los Angeles	2nd Ave	Bioretention (No Underdrain)	1,817
491073	Los Angeles	3rd Ave	Bioretention (No Underdrain)	2,117
491073	Los Angeles	4th Ave	Bioretention (No Underdrain)	3,148
491073	Los Angeles	5th Ave	Bioretention (No Underdrain)	3,583
491073	Los Angeles	6th Ave	Bioretention (No Underdrain)	3,197
491073	Los Angeles	7th Ave	Bioretention (No Underdrain)	2,504
491073	Los Angeles	8th Ave	Bioretention (No Underdrain)	1,551
491073	Los Angeles	8th St	Bioretention (No Underdrain)	212
491073	Los Angeles	9th Ave	Bioretention (No Underdrain)	790
491073	Los Angeles	Albany St	Bioretention (No Underdrain)	3,848
491073	Los Angeles	Alvarado Ter	Bioretention (No Underdrain)	1,368
491073	Los Angeles	Amey St	Bioretention (No Underdrain)	130

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491073	Los Angeles	Arapahoe St	Bioretention (No Underdrain)	2,755
491073	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	2,725
491073	Los Angeles	Beacon Ave	Bioretention (No Underdrain)	2,176
491073	Los Angeles	Blaine St	Bioretention (No Underdrain)	943
491073	Los Angeles	Bond St	Bioretention (No Underdrain)	266
491073	Los Angeles	Bonsallo Ave	Bioretention (No Underdrain)	1,454
491073	Los Angeles	Brighton Ave	Bioretention (No Underdrain)	2,628
491073	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	5,318
491073	Los Angeles	Cambria St	Bioretention (No Underdrain)	613
491073	Los Angeles	Cameron Ln	Bioretention (No Underdrain)	273
491073	Los Angeles	Cherry St	Bioretention (No Underdrain)	1,384
491073	Los Angeles	Chick Hearn Ct	Bioretention (No Underdrain)	1,447
491073	Los Angeles	Childs Way	Bioretention (No Underdrain)	108
491073	Los Angeles	Cimarron St	Bioretention (No Underdrain)	3,329
491073	Los Angeles	Columbia Ave	Bioretention (No Underdrain)	3,461
491073	Los Angeles	Columbia Pl	Bioretention (No Underdrain)	30
491073	Los Angeles	Connecticut St	Bioretention (No Underdrain)	680
491073	Los Angeles	Constance St	Bioretention (No Underdrain)	1,312
491073	Los Angeles	Cordova St	Bioretention (No Underdrain)	2,543
491073	Los Angeles	Cottage Pl	Bioretention (No Underdrain)	542
491073	Los Angeles	Courtland St	Bioretention (No Underdrain)	540
491073	Los Angeles	Crown Hill Ave	Bioretention (No Underdrain)	436
491073	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	2,620
491073	Los Angeles	Dana St	Bioretention (No Underdrain)	820
491073	Los Angeles	Denker Ave	Bioretention (No Underdrain)	416
491073	Los Angeles	Downey Way	Bioretention (No Underdrain)	155
491073	Los Angeles	Ellendale Pl	Bioretention (No Underdrain)	3,061
491073	Los Angeles	Estrella Ave	Bioretention (No Underdrain)	913
491073	Los Angeles	Francisco St	Bioretention (No Underdrain)	1,116
491073	Los Angeles	Garland Ave	Bioretention (No Underdrain)	987
491073	Los Angeles	Georgia St	Bioretention (No Underdrain)	1,788
491073	Los Angeles	Golden Ave	Bioretention (No Underdrain)	47
491073	Los Angeles	GrāmERCY Park	Bioretention (No Underdrain)	159
491073	Los Angeles	Grattan St	Bioretention (No Underdrain)	804
491073	Los Angeles	Green Ave	Bioretention (No Underdrain)	667
491073	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	2,624
491073	Los Angeles	Hartford Ave	Bioretention (No Underdrain)	1,892
491073	Los Angeles	Hellman Way	Bioretention (No Underdrain)	49
491073	Los Angeles	Hoover Blvd	Bioretention (No Underdrain)	51
491073	Los Angeles	Ingraham St	Bioretention (No Underdrain)	2,193
491073	Los Angeles	James M Wood Blvd	Bioretention (No Underdrain)	3,472
491073	Los Angeles	Juliet St	Bioretention (No Underdrain)	1,965
491073	Los Angeles	Kenwood Ave	Bioretention (No Underdrain)	2,627
491073	Los Angeles	Lebanon St	Bioretention (No Underdrain)	1,075
491073	Los Angeles	Linwood Ave	Bioretention (No Underdrain)	427
491073	Los Angeles	Loma Dr	Bioretention (No Underdrain)	1,689
491073	Los Angeles	Lovelace Ave	Bioretention (No Underdrain)	273
491073	Los Angeles	Lucas Ave	Bioretention (No Underdrain)	2,894
491073	Los Angeles	Magnolia Ave	Bioretention (No Underdrain)	5,069
491073	Los Angeles	Magnolia Ct	Bioretention (No Underdrain)	103
491073	Los Angeles	Malvern Ave	Bioretention (No Underdrain)	767
491073	Los Angeles	Maryland St	Bioretention (No Underdrain)	581
491073	Los Angeles	Mc Clintock Ave	Bioretention (No Underdrain)	1,012
491073	Los Angeles	McClintock Ave	Bioretention (No Underdrain)	1,012
491073	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	3,299

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491073	Los Angeles	Miramar St	Bioretention (No Underdrain)	335
491073	Los Angeles	Monmouth Ave	Bioretention (No Underdrain)	667
491073	Los Angeles	Montclair St	Bioretention (No Underdrain)	2,274
491073	Los Angeles	N la Salle Ave	Bioretention (No Underdrain)	101
491073	Los Angeles	New England St	Bioretention (No Underdrain)	677
491073	Los Angeles	Norwood St	Bioretention (No Underdrain)	1,458
491073	Los Angeles	Oak St	Bioretention (No Underdrain)	2,370
491073	Los Angeles	Orchard Ave	Bioretention (No Underdrain)	5,473
491073	Los Angeles	Park Grove Ave	Bioretention (No Underdrain)	1,456
491073	Los Angeles	Portland St	Bioretention (No Underdrain)	2,489
491073	Los Angeles	Powers Pl	Bioretention (No Underdrain)	77
491073	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	5,112
491073	Los Angeles	Roosevelt Ave	Bioretention (No Underdrain)	358
491073	Los Angeles	Royal St	Bioretention (No Underdrain)	674
491073	Los Angeles	S Alvarado St	Bioretention (No Underdrain)	718
491073	Los Angeles	S Ardmore Ave	Bioretention (No Underdrain)	293
491073	Los Angeles	S Berendo St	Bioretention (No Underdrain)	1,479
491073	Los Angeles	S Bixel St	Bioretention (No Underdrain)	2,886
491073	Los Angeles	S Bonnie Brae St	Bioretention (No Underdrain)	4,169
491073	Los Angeles	S Burlington Ave	Bioretention (No Underdrain)	4,580
491073	Los Angeles	S Catalina St	Bioretention (No Underdrain)	5,265
491073	Los Angeles	S Congress Ave	Bioretention (No Underdrain)	1,417
491073	Los Angeles	S Figueroa St	Bioretention (No Underdrain)	4,396
491073	Los Angeles	S Flower St	Bioretention (No Underdrain)	3,813
491073	Los Angeles	S Golden Ave	Bioretention (No Underdrain)	12
491073	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	551
491073	Los Angeles	S Grand Ave	Bioretention (No Underdrain)	83
491073	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	4,479
491073	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	4,841
491073	Los Angeles	S Hoover St	Bioretention (No Underdrain)	7,825
491073	Los Angeles	S Hope St	Bioretention (No Underdrain)	2,665
491073	Los Angeles	S Kingsley Dr	Bioretention (No Underdrain)	577
491073	Los Angeles	S la Salle Ave	Bioretention (No Underdrain)	4,885
491073	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	294
491073	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	689
491073	Los Angeles	S New England St	Bioretention (No Underdrain)	1,849
491073	Los Angeles	S New Hampshire Ave	Bioretention (No Underdrain)	1,524
491073	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	5,967
491073	Los Angeles	S Pembroke Ln	Bioretention (No Underdrain)	22
491073	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	2,859
491073	Los Angeles	S St James Pl	Bioretention (No Underdrain)	403
491073	Los Angeles	S Union Ave	Bioretention (No Underdrain)	8,117
491073	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	8,572
491073	Los Angeles	S Western Ave	Bioretention (No Underdrain)	3,668
491073	Los Angeles	S Westlake Ave	Bioretention (No Underdrain)	1,298
491073	Los Angeles	S Westmoreland Ave	Bioretention (No Underdrain)	1,454
491073	Los Angeles	Saint James Park	Bioretention (No Underdrain)	759
491073	Los Angeles	Saint James Pl	Bioretention (No Underdrain)	285
491073	Los Angeles	Scarff St	Bioretention (No Underdrain)	1,119
491073	Los Angeles	Sentous St	Bioretention (No Underdrain)	1,005
491073	Los Angeles	Severance St	Bioretention (No Underdrain)	858
491073	Los Angeles	Shatto St	Bioretention (No Underdrain)	213
491073	Los Angeles	Shrine Pl	Bioretention (No Underdrain)	634
491073	Los Angeles	St James Park	Bioretention (No Underdrain)	266
491073	Los Angeles	St James Pl	Bioretention (No Underdrain)	588

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491073	Los Angeles	Sunbury St	Bioretention (No Underdrain)	355
491073	Los Angeles	Toberman St	Bioretention (No Underdrain)	4,417
491073	Los Angeles	University Ave	Bioretention (No Underdrain)	2,117
491073	Los Angeles	Valencia St	Bioretention (No Underdrain)	5,258
491073	Los Angeles	Van Buren Pl	Bioretention (No Underdrain)	2,452
491073	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	5,171
491073	Los Angeles	W 10th Pl	Bioretention (No Underdrain)	442
491073	Los Angeles	W 11th Pl	Bioretention (No Underdrain)	1,738
491073	Los Angeles	W 11th St	Bioretention (No Underdrain)	3,320
491073	Los Angeles	W 12th Pl	Bioretention (No Underdrain)	2,344
491073	Los Angeles	W 12th St	Bioretention (No Underdrain)	3,530
491073	Los Angeles	W 14th St	Bioretention (No Underdrain)	2,249
491073	Los Angeles	W 15th St	Bioretention (No Underdrain)	40
491073	Los Angeles	W 17th Pl	Bioretention (No Underdrain)	864
491073	Los Angeles	W 17th St	Bioretention (No Underdrain)	2,663
491073	Los Angeles	W 18th St	Bioretention (No Underdrain)	2,735
491073	Los Angeles	W 20th St	Bioretention (No Underdrain)	6,583
491073	Los Angeles	W 21st St	Bioretention (No Underdrain)	2,884
491073	Los Angeles	W 22nd Pl	Bioretention (No Underdrain)	824
491073	Los Angeles	W 22nd St	Bioretention (No Underdrain)	5,213
491073	Los Angeles	W 23rd St	Bioretention (No Underdrain)	8,874
491073	Los Angeles	W 24th St	Bioretention (No Underdrain)	7,609
491073	Los Angeles	W 25th St	Bioretention (No Underdrain)	9,799
491073	Los Angeles	W 26th Pl	Bioretention (No Underdrain)	1,287
491073	Los Angeles	W 27th St	Bioretention (No Underdrain)	12,351
491073	Los Angeles	W 28th St	Bioretention (No Underdrain)	7,114
491073	Los Angeles	W 29th Pl	Bioretention (No Underdrain)	3,724
491073	Los Angeles	W 29th St	Bioretention (No Underdrain)	10,212
491073	Los Angeles	W 30th Pl	Bioretention (No Underdrain)	661
491073	Los Angeles	W 30th St	Bioretention (No Underdrain)	14,698
491073	Los Angeles	W 31st St	Bioretention (No Underdrain)	4,538
491073	Los Angeles	W 32nd St	Bioretention (No Underdrain)	1,607
491073	Los Angeles	W 34th St	Bioretention (No Underdrain)	49
491073	Los Angeles	W 35th Pl	Bioretention (No Underdrain)	49
491073	Los Angeles	W 35th St	Bioretention (No Underdrain)	6,389
491073	Los Angeles	W 36th Pl	Bioretention (No Underdrain)	155
491073	Los Angeles	W 36th St	Bioretention (No Underdrain)	185
491073	Los Angeles	W 37th Pl	Bioretention (No Underdrain)	89
491073	Los Angeles	W 37th St	Bioretention (No Underdrain)	197
491073	Los Angeles	W 3rd St	Bioretention (No Underdrain)	1,631
491073	Los Angeles	W 4th St	Bioretention (No Underdrain)	1,616
491073	Los Angeles	W 5th St	Bioretention (No Underdrain)	1,175
491073	Los Angeles	W 6th St	Bioretention (No Underdrain)	2,263
491073	Los Angeles	W 7th St	Bioretention (No Underdrain)	3,312
491073	Los Angeles	W 8th Pl	Bioretention (No Underdrain)	533
491073	Los Angeles	W 8th St	Bioretention (No Underdrain)	2,468
491073	Los Angeles	W 9th St	Bioretention (No Underdrain)	2,150
491073	Los Angeles	W Adams Blvd	Bioretention (No Underdrain)	14,806
491073	Los Angeles	W Adams Gardens	Bioretention (No Underdrain)	82
491073	Los Angeles	W Gramercy Park	Bioretention (No Underdrain)	159
491073	Los Angeles	W James M Wood Blvd	Bioretention (No Underdrain)	895
491073	Los Angeles	W James M Woods	Bioretention (No Underdrain)	396
491073	Los Angeles	W James M Woods St	Bioretention (No Underdrain)	697
491073	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	18,422
491073	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	5,265

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491073	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	6,524
491073	Los Angeles	W Prescott Ct	Bioretention (No Underdrain)	164
491073	Los Angeles	W St James Park	Bioretention (No Underdrain)	217
491073	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	8,361
491073	Los Angeles	Walton Ave	Bioretention (No Underdrain)	2,559
491073	Los Angeles	Watt Way	Bioretention (No Underdrain)	30
491073	Los Angeles	Wilmot St	Bioretention (No Underdrain)	116
491073	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	1,362
491073	Los Angeles	Witmer St	Bioretention (No Underdrain)	4,167
491073	Los Angeles	Wright St	Bioretention (No Underdrain)	305
491074	Los Angeles	(unknown)	Bioretention (No Underdrain)	215
491074	Los Angeles	Cameron Ln	Bioretention (No Underdrain)	913
491074	Los Angeles	Catesby Ln	Bioretention (No Underdrain)	350
491074	Los Angeles	E 14th St	Bioretention (No Underdrain)	535
491074	Los Angeles	E 15th St	Bioretention (No Underdrain)	756
491074	Los Angeles	E 16th St	Bioretention (No Underdrain)	759
491074	Los Angeles	E Pico Blvd	Bioretention (No Underdrain)	57
491074	Los Angeles	E Washington Blvd	Bioretention (No Underdrain)	740
491074	Los Angeles	E Washington Boulevard	Bioretention (No Underdrain)	55
491074	Los Angeles	Lebanon St	Bioretention (No Underdrain)	793
491074	Los Angeles	Margo St	Bioretention (No Underdrain)	727
491074	Los Angeles	Midway Ln	Bioretention (No Underdrain)	34
491074	Los Angeles	S Broadway	Bioretention (No Underdrain)	6,501
491074	Los Angeles	S Figueroa St	Bioretention (No Underdrain)	5,122
491074	Los Angeles	S Flower St	Bioretention (No Underdrain)	3,710
491074	Los Angeles	S Grand Ave	Bioretention (No Underdrain)	6,546
491074	Los Angeles	S Hill St	Bioretention (No Underdrain)	6,503
491074	Los Angeles	S Hope St	Bioretention (No Underdrain)	2,512
491074	Los Angeles	S Los Angeles St	Bioretention (No Underdrain)	1,365
491074	Los Angeles	S Main St	Bioretention (No Underdrain)	2,448
491074	Los Angeles	S Olive St	Bioretention (No Underdrain)	5,018
491074	Los Angeles	S Pembroke Ln	Bioretention (No Underdrain)	1,582
491074	Los Angeles	Saint Josephs Pl	Bioretention (No Underdrain)	719
491074	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	2,296
491074	Los Angeles	W 12th St	Bioretention (No Underdrain)	12
491074	Los Angeles	W 14th Pl	Bioretention (No Underdrain)	718
491074	Los Angeles	W 14th St	Bioretention (No Underdrain)	1,436
491074	Los Angeles	W 15th St	Bioretention (No Underdrain)	1,219
491074	Los Angeles	W 18th St	Bioretention (No Underdrain)	367
491074	Los Angeles	W 20th St	Bioretention (No Underdrain)	419
491074	Los Angeles	W 21st St	Bioretention (No Underdrain)	1,919
491074	Los Angeles	W 22nd St	Bioretention (No Underdrain)	1,628
491074	Los Angeles	W 23rd St	Bioretention (No Underdrain)	2,300
491074	Los Angeles	W 24th St	Bioretention (No Underdrain)	1,138
491074	Los Angeles	W 25th St	Bioretention (No Underdrain)	1,191
491074	Los Angeles	W 27th St	Bioretention (No Underdrain)	1,626
491074	Los Angeles	W 28th St	Bioretention (No Underdrain)	2,295
491074	Los Angeles	W 29th Pl	Bioretention (No Underdrain)	70
491074	Los Angeles	W 29th St	Bioretention (No Underdrain)	421
491074	Los Angeles	W 30th St	Bioretention (No Underdrain)	2,289
491074	Los Angeles	W 31st St	Bioretention (No Underdrain)	298
491074	Los Angeles	W 32nd St	Bioretention (No Underdrain)	82
491074	Los Angeles	W 33rd St	Bioretention (No Underdrain)	332
491074	Los Angeles	W Adams Blvd	Bioretention (No Underdrain)	2,242
491074	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	1,778

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491074	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	4,730
491074	Los Angeles	W Washington Boulevard	Bioretention (No Underdrain)	2,103
491075	Los Angeles	(unknown)	Bioretention (No Underdrain)	502
491075	Los Angeles	Adair St	Bioretention (No Underdrain)	786
491075	Los Angeles	Boaz St	Bioretention (No Underdrain)	266
491075	Los Angeles	Broadway Pl	Bioretention (No Underdrain)	109
491075	Los Angeles	Compton Ave	Bioretention (No Underdrain)	2,421
491075	Los Angeles	E 14th Pl	Bioretention (No Underdrain)	7
491075	Los Angeles	E 14th St	Bioretention (No Underdrain)	616
491075	Los Angeles	E 15th St	Bioretention (No Underdrain)	3,123
491075	Los Angeles	E 16th St	Bioretention (No Underdrain)	942
491075	Los Angeles	E 18th St	Bioretention (No Underdrain)	2,808
491075	Los Angeles	E 20th St	Bioretention (No Underdrain)	3,643
491075	Los Angeles	E 21st St	Bioretention (No Underdrain)	6,520
491075	Los Angeles	E 22nd St	Bioretention (No Underdrain)	7,505
491075	Los Angeles	E 23rd St	Bioretention (No Underdrain)	8,821
491075	Los Angeles	E 24th St	Bioretention (No Underdrain)	4,990
491075	Los Angeles	E 25th St	Bioretention (No Underdrain)	8,216
491075	Los Angeles	E 27th St	Bioretention (No Underdrain)	7,166
491075	Los Angeles	E 28th St	Bioretention (No Underdrain)	6,021
491075	Los Angeles	E 29th St	Bioretention (No Underdrain)	5,163
491075	Los Angeles	E 30th St	Bioretention (No Underdrain)	2,160
491075	Los Angeles	E 31st St	Bioretention (No Underdrain)	4,227
491075	Los Angeles	E 32nd St	Bioretention (No Underdrain)	5,300
491075	Los Angeles	E 33rd St	Bioretention (No Underdrain)	6,879
491075	Los Angeles	E 34th St	Bioretention (No Underdrain)	644
491075	Los Angeles	E Adams Blvd	Bioretention (No Underdrain)	8,152
491075	Los Angeles	E Jefferson Blvd	Bioretention (No Underdrain)	3,082
491075	Los Angeles	E Washington Blvd	Bioretention (No Underdrain)	9,810
491075	Los Angeles	E Washington Boulevard	Bioretention (No Underdrain)	5,218
491075	Los Angeles	Essex St	Bioretention (No Underdrain)	478
491075	Los Angeles	Geraldine St	Bioretention (No Underdrain)	222
491075	Los Angeles	Griffith Ave	Bioretention (No Underdrain)	5,886
491075	Los Angeles	Hooper Ave	Bioretention (No Underdrain)	2,900
491075	Los Angeles	Hooper Pl	Bioretention (No Underdrain)	174
491075	Los Angeles	Leta St	Bioretention (No Underdrain)	149
491075	Los Angeles	Maple Ave	Bioretention (No Underdrain)	6,625
491075	Los Angeles	McKinley Ave	Bioretention (No Underdrain)	51
491075	Los Angeles	Myrtle St	Bioretention (No Underdrain)	846
491075	Los Angeles	Naomi Ave	Bioretention (No Underdrain)	3,094
491075	Los Angeles	Nevin Ave	Bioretention (No Underdrain)	316
491075	Los Angeles	Paloma St	Bioretention (No Underdrain)	1,700
491075	Los Angeles	S Broadway	Bioretention (No Underdrain)	1,727
491075	Los Angeles	S Central Ave	Bioretention (No Underdrain)	4,716
491075	Los Angeles	S Figueroa St	Bioretention (No Underdrain)	129
491075	Los Angeles	S Flower St	Bioretention (No Underdrain)	1,098
491075	Los Angeles	S Grand Ave	Bioretention (No Underdrain)	1,225
491075	Los Angeles	S Griffith Ave	Bioretention (No Underdrain)	65
491075	Los Angeles	S Hill St	Bioretention (No Underdrain)	1,218
491075	Los Angeles	S Hope St	Bioretention (No Underdrain)	114
491075	Los Angeles	S Los Angeles St	Bioretention (No Underdrain)	1,957
491075	Los Angeles	S Main St	Bioretention (No Underdrain)	5,045
491075	Los Angeles	S San Pedro St	Bioretention (No Underdrain)	5,394
491075	Los Angeles	Saint Josephs Pl	Bioretention (No Underdrain)	446
491075	Los Angeles	San Julian St	Bioretention (No Underdrain)	30

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491075	Los Angeles	Santee St	Bioretention (No Underdrain)	1,801
491075	Los Angeles	Stanford Ave	Bioretention (No Underdrain)	5,056
491075	Los Angeles	Trinity St	Bioretention (No Underdrain)	4,919
491075	Los Angeles	W 21st St	Bioretention (No Underdrain)	14
491075	Los Angeles	W 22nd St	Bioretention (No Underdrain)	115
491075	Los Angeles	W 23rd St	Bioretention (No Underdrain)	139
491075	Los Angeles	W 24th St	Bioretention (No Underdrain)	104
491075	Los Angeles	W 25th St	Bioretention (No Underdrain)	50
491075	Los Angeles	W 27th St	Bioretention (No Underdrain)	85
491075	Los Angeles	W 28th St	Bioretention (No Underdrain)	75
491075	Los Angeles	W 30th St	Bioretention (No Underdrain)	53
491075	Los Angeles	W 31st St	Bioretention (No Underdrain)	1,904
491075	Los Angeles	W 32nd St	Bioretention (No Underdrain)	1,239
491075	Los Angeles	W 33rd St	Bioretention (No Underdrain)	1,787
491075	Los Angeles	W 35th St	Bioretention (No Underdrain)	416
491075	Los Angeles	W 36th St	Bioretention (No Underdrain)	176
491075	Los Angeles	W Adams Blvd	Bioretention (No Underdrain)	59
491075	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	2,129
491075	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	26
491075	Los Angeles	W Washington Boulevard	Bioretention (No Underdrain)	26
491075	Los Angeles	Wadsworth Ave	Bioretention (No Underdrain)	804
491075	Los Angeles	Wall St	Bioretention (No Underdrain)	2,372
491075	Los Angeles	Walnut St	Bioretention (No Underdrain)	406
491076	Los Angeles	(unknown)	Bioretention (No Underdrain)	240
491076	Los Angeles	3rd Ave	Bioretention (No Underdrain)	3
491076	Los Angeles	4th Ave	Bioretention (No Underdrain)	312
491076	Los Angeles	6th Ave	Bioretention (No Underdrain)	544
491076	Los Angeles	7th Ave	Bioretention (No Underdrain)	371
491076	Los Angeles	9th Ave	Bioretention (No Underdrain)	241
491076	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	2,569
491076	Los Angeles	Cherrywood Ave	Bioretention (No Underdrain)	3,188
491076	Los Angeles	Chesapeake Ave	Bioretention (No Underdrain)	1,916
491076	Los Angeles	Coliseum Pl	Bioretention (No Underdrain)	352
491076	Los Angeles	Coliseum St	Bioretention (No Underdrain)	6,149
491076	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	3,865
491076	Los Angeles	Degnan Blvd	Bioretention (No Underdrain)	3,558
491076	Los Angeles	Dublin Ave	Bioretention (No Underdrain)	194
491076	Los Angeles	Edgehill Dr	Bioretention (No Underdrain)	2,833
491076	Los Angeles	Exposition Pl	Bioretention (No Underdrain)	3,873
491076	Los Angeles	Grayburn Ave	Bioretention (No Underdrain)	2,447
491076	Los Angeles	Hepburn Ave	Bioretention (No Underdrain)	700
491076	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	1,841
491076	Los Angeles	Hubert Ave	Bioretention (No Underdrain)	1,052
491076	Los Angeles	Marlton Ave	Bioretention (No Underdrain)	685
491076	Los Angeles	Martin Luther King Jr Blvd	Bioretention (No Underdrain)	112
491076	Los Angeles	Mc Clung Dr	Bioretention (No Underdrain)	1,133
491076	Los Angeles	McClung Dr	Bioretention (No Underdrain)	1,133
491076	Los Angeles	Olmsted Ave	Bioretention (No Underdrain)	3,066
491076	Los Angeles	Potomac Ave	Bioretention (No Underdrain)	1,878
491076	Los Angeles	Rodeo Ln	Bioretention (No Underdrain)	58
491076	Los Angeles	Rodeo Pl	Bioretention (No Underdrain)	580
491076	Los Angeles	Rodeo Rd	Bioretention (No Underdrain)	7,513
491076	Los Angeles	Roxton Ave	Bioretention (No Underdrain)	395
491076	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	2,833
491076	Los Angeles	S Crenshaw Blvd	Bioretention (No Underdrain)	3,694

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491076	Los Angeles	S Edgehill Dr	Bioretention (No Underdrain)	470
491076	Los Angeles	S Muirfield Rd	Bioretention (No Underdrain)	2,125
491076	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	3,519
491076	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	3,318
491076	Los Angeles	Somerset Dr	Bioretention (No Underdrain)	3,176
491076	Los Angeles	Sutro Ave	Bioretention (No Underdrain)	356
491076	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	2,794
491076	Los Angeles	W 39th St	Bioretention (No Underdrain)	4,160
491076	Los Angeles	W Martin Luther King Jr Blvd	Bioretention (No Underdrain)	112
491076	Los Angeles	Welland Ave	Bioretention (No Underdrain)	673
491076	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	3,018
491076	Los Angeles	West Blvd	Bioretention (No Underdrain)	2,361
491076	Los Angeles	Westside Ave	Bioretention (No Underdrain)	1,669
491077	Los Angeles	(unknown)	Bioretention (No Underdrain)	162
491077	Los Angeles	2nd Ave	Bioretention (No Underdrain)	3,963
491077	Los Angeles	3rd Ave	Bioretention (No Underdrain)	3,902
491077	Los Angeles	4th Ave	Bioretention (No Underdrain)	1,237
491077	Los Angeles	5th Ave	Bioretention (No Underdrain)	1,222
491077	Los Angeles	6th Ave	Bioretention (No Underdrain)	2,857
491077	Los Angeles	8th Ave	Bioretention (No Underdrain)	509
491077	Los Angeles	9th Ave	Bioretention (No Underdrain)	87
491077	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	4,022
491077	Los Angeles	Brighton Ave	Bioretention (No Underdrain)	1,808
491077	Los Angeles	Browning Ave	Bioretention (No Underdrain)	1,293
491077	Los Angeles	Browning Blvd	Bioretention (No Underdrain)	6,365
491077	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	2,466
491077	Los Angeles	Cimarron St	Bioretention (No Underdrain)	1,293
491077	Los Angeles	Creed Ave	Bioretention (No Underdrain)	1,039
491077	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	1,805
491077	Los Angeles	Denker Ave	Bioretention (No Underdrain)	2,696
491077	Los Angeles	Dublin Ave	Bioretention (No Underdrain)	2,413
491077	Los Angeles	Garthwaite Ave	Bioretention (No Underdrain)	1,076
491077	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	1,806
491077	Los Angeles	Hepburn Ave	Bioretention (No Underdrain)	2,306
491077	Los Angeles	Kansas Ave	Bioretention (No Underdrain)	14
491077	Los Angeles	la Salle Ave	Bioretention (No Underdrain)	2,694
491077	Los Angeles	Leighton Ave	Bioretention (No Underdrain)	6,022
491077	Los Angeles	Leimert Blvd	Bioretention (No Underdrain)	2,082
491077	Los Angeles	Martin Luther King Jr Blvd	Bioretention (No Underdrain)	10,614
491077	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	919
491077	Los Angeles	Middleton Pl	Bioretention (No Underdrain)	2,173
491077	Los Angeles	Norumbega Ct	Bioretention (No Underdrain)	275
491077	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	120
491077	Los Angeles	Roland Curtis Pl	Bioretention (No Underdrain)	1,308
491077	Los Angeles	Rolland Curtis Pl	Bioretention (No Underdrain)	1,323
491077	Los Angeles	Roxton Ave	Bioretention (No Underdrain)	2,374
491077	Los Angeles	S 9th Ave	Bioretention (No Underdrain)	33
491077	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	2,466
491077	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	3,014
491077	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	2,693
491077	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	2,692
491077	Los Angeles	S Kansas Ave	Bioretention (No Underdrain)	14
491077	Los Angeles	S la Salle Ave	Bioretention (No Underdrain)	560
491077	Los Angeles	S Leimert Blvd	Bioretention (No Underdrain)	1,409
491077	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	2,490

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491077	Los Angeles	S Raymond Ave	Bioretention (No Underdrain)	120
491077	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	3,035
491077	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	3,355
491077	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	1,500
491077	Los Angeles	S Western Ave	Bioretention (No Underdrain)	2,024
491077	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	1,382
491077	Los Angeles	Stocker Pl	Bioretention (No Underdrain)	162
491077	Los Angeles	Stocker Plz	Bioretention (No Underdrain)	69
491077	Los Angeles	Sutro Ave	Bioretention (No Underdrain)	3,105
491077	Los Angeles	Sutro Walk	Bioretention (No Underdrain)	141
491077	Los Angeles	W 38th Pl	Bioretention (No Underdrain)	4,180
491077	Los Angeles	W 38th St	Bioretention (No Underdrain)	3,705
491077	Los Angeles	W 39th Pl	Bioretention (No Underdrain)	5,037
491077	Los Angeles	W 39th St	Bioretention (No Underdrain)	11,737
491077	Los Angeles	W 41st Dr	Bioretention (No Underdrain)	2,970
491077	Los Angeles	W 41st St	Bioretention (No Underdrain)	2,408
491077	Los Angeles	W 42nd St	Bioretention (No Underdrain)	822
491077	Los Angeles	W Leighton Ave	Bioretention (No Underdrain)	340
491077	Los Angeles	W Martin Luther King	Bioretention (No Underdrain)	536
491077	Los Angeles	W Martin Luther King Jr Blvd	Bioretention (No Underdrain)	10,614
491077	Los Angeles	W Rolland Curtis Pl	Bioretention (No Underdrain)	1,308
491077	Los Angeles	Walton Ave	Bioretention (No Underdrain)	1,162
491077	Los Angeles	Welland Ave	Bioretention (No Underdrain)	2,150
491077	Los Angeles	Westside Ave	Bioretention (No Underdrain)	1,550
491077	Los Angeles	Wisconsin Pl	Bioretention (No Underdrain)	496
491077	Los Angeles	Wisconsin St	Bioretention (No Underdrain)	1,383
491078	Los Angeles	(unknown)	Bioretention (No Underdrain)	130
491078	Los Angeles	2nd Ave	Bioretention (No Underdrain)	4,067
491078	Los Angeles	3rd Ave	Bioretention (No Underdrain)	4,533
491078	Los Angeles	4th Ave	Bioretention (No Underdrain)	4,482
491078	Los Angeles	5th Ave	Bioretention (No Underdrain)	3,543
491078	Los Angeles	6th Ave	Bioretention (No Underdrain)	4,573
491078	Los Angeles	7th Ave	Bioretention (No Underdrain)	4,832
491078	Los Angeles	8th Ave	Bioretention (No Underdrain)	4,177
491078	Los Angeles	9th Ave	Bioretention (No Underdrain)	1,357
491078	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	3,821
491078	Los Angeles	Brighton Ave	Bioretention (No Underdrain)	2,988
491078	Los Angeles	Browning Blvd	Bioretention (No Underdrain)	49
491078	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	2,565
491078	Los Angeles	Cimarron St	Bioretention (No Underdrain)	3,107
491078	Los Angeles	Creed Ave	Bioretention (No Underdrain)	321
491078	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	2,989
491078	Los Angeles	Denker Ave	Bioretention (No Underdrain)	5,295
491078	Los Angeles	Garthwaite Ave	Bioretention (No Underdrain)	474
491078	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	5,246
491078	Los Angeles	Kansas Ave	Bioretention (No Underdrain)	2,342
491078	Los Angeles	Kenwood Ave	Bioretention (No Underdrain)	1,321
491078	Los Angeles	la Salle Ave	Bioretention (No Underdrain)	2,495
491078	Los Angeles	Leighton Ave	Bioretention (No Underdrain)	132
491078	Los Angeles	Leimert Blvd	Bioretention (No Underdrain)	279
491078	Los Angeles	Martin Luther King Jr Blvd	Bioretention (No Underdrain)	2,590
491078	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	5,403
491078	Los Angeles	Orchard Ave	Bioretention (No Underdrain)	1,142
491078	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	3,264
491078	Los Angeles	Ruthelen St	Bioretention (No Underdrain)	26

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491078	Los Angeles	S 7th Ave	Bioretention (No Underdrain)	40
491078	Los Angeles	S 8th Ave	Bioretention (No Underdrain)	1,209
491078	Los Angeles	S 9th Ave	Bioretention (No Underdrain)	748
491078	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	3,623
491078	Los Angeles	S Coliseum Dr	Bioretention (No Underdrain)	10
491078	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	4,697
491078	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	5,145
491078	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	2,497
491078	Los Angeles	S Hoover St	Bioretention (No Underdrain)	2,909
491078	Los Angeles	S Kansas Ave	Bioretention (No Underdrain)	2,342
491078	Los Angeles	S Leimert Blvd	Bioretention (No Underdrain)	245
491078	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	40
491078	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	2,518
491078	Los Angeles	S Park Dr	Bioretention (No Underdrain)	72
491078	Los Angeles	S Raymond Ave	Bioretention (No Underdrain)	3,264
491078	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	4,609
491078	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	4,978
491078	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	5,632
491078	Los Angeles	S Western Ave	Bioretention (No Underdrain)	5,214
491078	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	2,651
491078	Los Angeles	Stocker Pl	Bioretention (No Underdrain)	491
491078	Los Angeles	Stocker Plz	Bioretention (No Underdrain)	522
491078	Los Angeles	Stocker St	Bioretention (No Underdrain)	738
491078	Los Angeles	Sutro Ave	Bioretention (No Underdrain)	1,163
491078	Los Angeles	Van Buren Pl	Bioretention (No Underdrain)	1,322
491078	Los Angeles	W 39th Pl	Bioretention (No Underdrain)	57
491078	Los Angeles	W 40th Pl	Bioretention (No Underdrain)	5,133
491078	Los Angeles	W 41st Dr	Bioretention (No Underdrain)	3,250
491078	Los Angeles	W 41st Pl	Bioretention (No Underdrain)	8,240
491078	Los Angeles	W 41st St	Bioretention (No Underdrain)	4,291
491078	Los Angeles	W 42nd Pl	Bioretention (No Underdrain)	8,112
491078	Los Angeles	W 42nd St	Bioretention (No Underdrain)	10,319
491078	Los Angeles	W 43rd Pl	Bioretention (No Underdrain)	6,210
491078	Los Angeles	W 43rd St	Bioretention (No Underdrain)	9,222
491078	Los Angeles	W 45th St	Bioretention (No Underdrain)	4,911
491078	Los Angeles	W 46th St	Bioretention (No Underdrain)	5,659
491078	Los Angeles	W 47th St	Bioretention (No Underdrain)	4,933
491078	Los Angeles	W 48th St	Bioretention (No Underdrain)	11,026
491078	Los Angeles	W 49th St	Bioretention (No Underdrain)	7,967
491078	Los Angeles	W 50th St	Bioretention (No Underdrain)	4,419
491078	Los Angeles	W 51st Pl	Bioretention (No Underdrain)	40
491078	Los Angeles	W 51st St	Bioretention (No Underdrain)	4,099
491078	Los Angeles	W 52nd St	Bioretention (No Underdrain)	632
491078	Los Angeles	W 54th St	Bioretention (No Underdrain)	697
491078	Los Angeles	W Martin Luther King Jr Blvd	Bioretention (No Underdrain)	2,590
491078	Los Angeles	W Stocker St	Bioretention (No Underdrain)	91
491078	Los Angeles	W Vernon Ave	Bioretention (No Underdrain)	12,737
491078	Los Angeles	Walton Ave	Bioretention (No Underdrain)	2,597
491078	Los Angeles	Wesley Ave	Bioretention (No Underdrain)	1,142
491079	Los Angeles	(unknown)	Bioretention (No Underdrain)	59
491079	Los Angeles	2nd Ave	Bioretention (No Underdrain)	1,099
491079	Los Angeles	3rd Ave	Bioretention (No Underdrain)	694
491079	Los Angeles	4th Ave	Bioretention (No Underdrain)	695
491079	Los Angeles	5th Ave	Bioretention (No Underdrain)	666
491079	Los Angeles	6th Ave	Bioretention (No Underdrain)	33

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491079	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	1,273
491079	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	2,861
491079	Los Angeles	Cimarron St	Bioretention (No Underdrain)	2,040
491079	Los Angeles	Denker Ave	Bioretention (No Underdrain)	3,930
491079	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	2,328
491079	Los Angeles	Kansas Ave	Bioretention (No Underdrain)	2,325
491079	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	4,453
491079	Los Angeles	Ruthelen St	Bioretention (No Underdrain)	2,460
491079	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	6,178
491079	Los Angeles	S Denker Ave	Bioretention (No Underdrain)	1,594
491079	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	2,378
491079	Los Angeles	S Halldale Ave	Bioretention (No Underdrain)	1,604
491079	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	1,599
491079	Los Angeles	S Hoover St	Bioretention (No Underdrain)	5,100
491079	Los Angeles	S Kansas Ave	Bioretention (No Underdrain)	1,681
491079	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	1,114
491079	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	1,500
491079	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	7,844
491079	Los Angeles	S Raymond Ave	Bioretention (No Underdrain)	1,705
491079	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	2,620
491079	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	1,947
491079	Los Angeles	S Van Ness Pl	Bioretention (No Underdrain)	916
491079	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	4,781
491079	Los Angeles	S Western Ave	Bioretention (No Underdrain)	3,898
491079	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	2,495
491079	Los Angeles	W 45th St	Bioretention (No Underdrain)	2,696
491079	Los Angeles	W 46th St	Bioretention (No Underdrain)	3,520
491079	Los Angeles	W 47th St	Bioretention (No Underdrain)	3,381
491079	Los Angeles	W 48th St	Bioretention (No Underdrain)	1,847
491079	Los Angeles	W 49th Pl	Bioretention (No Underdrain)	1,280
491079	Los Angeles	W 49th St	Bioretention (No Underdrain)	1,434
491079	Los Angeles	W 50th Pl	Bioretention (No Underdrain)	1,354
491079	Los Angeles	W 50th St	Bioretention (No Underdrain)	5,326
491079	Los Angeles	W 51st Pl	Bioretention (No Underdrain)	5,976
491079	Los Angeles	W 51st St	Bioretention (No Underdrain)	5,281
491079	Los Angeles	W 52nd Pl	Bioretention (No Underdrain)	1,293
491079	Los Angeles	W 52nd St	Bioretention (No Underdrain)	12,396
491079	Los Angeles	W 53rd St	Bioretention (No Underdrain)	7,879
491079	Los Angeles	W 54th St	Bioretention (No Underdrain)	11,748
491079	Los Angeles	W 55th St	Bioretention (No Underdrain)	7,914
491079	Los Angeles	W 56th St	Bioretention (No Underdrain)	7,904
491079	Los Angeles	W 57th St	Bioretention (No Underdrain)	10,521
491079	Los Angeles	W 58th Pl	Bioretention (No Underdrain)	3,968
491079	Los Angeles	W 58th St	Bioretention (No Underdrain)	7,903
491079	Los Angeles	W 59th Dr	Bioretention (No Underdrain)	650
491079	Los Angeles	W 59th Pl	Bioretention (No Underdrain)	4,622
491079	Los Angeles	W 59th St	Bioretention (No Underdrain)	5,345
491079	Los Angeles	W 60th Pl	Bioretention (No Underdrain)	5,295
491079	Los Angeles	W 60th St	Bioretention (No Underdrain)	5,972
491079	Los Angeles	W 61st St	Bioretention (No Underdrain)	3,986
491079	Los Angeles	W 62nd St	Bioretention (No Underdrain)	1,357
491079	Los Angeles	W 64th St	Bioretention (No Underdrain)	1,396
491079	Los Angeles	W Concordia Walk	Bioretention (No Underdrain)	59
491079	Los Angeles	W Gage Ave	Bioretention (No Underdrain)	1,395
491079	Los Angeles	W Slauson Ave	Bioretention (No Underdrain)	1,242

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491080	Los Angeles	(unknown)	Bioretention (No Underdrain)	320
491080	Los Angeles	10th Ave	Bioretention (No Underdrain)	8,016
491080	Los Angeles	11th Ave	Bioretention (No Underdrain)	4,325
491080	Los Angeles	2nd Ave	Bioretention (No Underdrain)	6,315
491080	Los Angeles	3rd Ave	Bioretention (No Underdrain)	7,714
491080	Los Angeles	4th Ave	Bioretention (No Underdrain)	6,468
491080	Los Angeles	5th Ave	Bioretention (No Underdrain)	7,998
491080	Los Angeles	6th Ave	Bioretention (No Underdrain)	7,084
491080	Los Angeles	74th St	Bioretention (No Underdrain)	345
491080	Los Angeles	7th Ave	Bioretention (No Underdrain)	7,810
491080	Los Angeles	8th Ave	Bioretention (No Underdrain)	7,829
491080	Los Angeles	9th Ave	Bioretention (No Underdrain)	2,137
491080	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	4,904
491080	Los Angeles	Bonsallo Ave	Bioretention (No Underdrain)	1,096
491080	Los Angeles	Brynhurst Ave	Bioretention (No Underdrain)	7,043
491080	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	1,959
491080	Los Angeles	Chesley Ave	Bioretention (No Underdrain)	1,460
491080	Los Angeles	Cimarron St	Bioretention (No Underdrain)	11,511
491080	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	8,250
491080	Los Angeles	Deane Ave	Bioretention (No Underdrain)	178
491080	Los Angeles	Denker Ave	Bioretention (No Underdrain)	2,248
491080	Los Angeles	Denver Ave	Bioretention (No Underdrain)	589
491080	Los Angeles	E Florence Ave	Bioretention (No Underdrain)	0
491080	Los Angeles	Eileen Ave	Bioretention (No Underdrain)	170
491080	Los Angeles	Estrella Ave	Bioretention (No Underdrain)	571
491080	Los Angeles	Haas Ave	Bioretention (No Underdrain)	6,156
491080	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	2,702
491080	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	1,470
491080	Los Angeles	Hyde Park Blvd	Bioretention (No Underdrain)	5,020
491080	Los Angeles	Kansas Ave	Bioretention (No Underdrain)	1,598
491080	Los Angeles	Madden Ave	Bioretention (No Underdrain)	4,269
491080	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	4,079
491080	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	1,066
491080	Los Angeles	Ruthelen St	Bioretention (No Underdrain)	1,354
491080	Los Angeles	S 10th Ave	Bioretention (No Underdrain)	1
491080	Los Angeles	S 3rd Ave	Bioretention (No Underdrain)	43
491080	Los Angeles	S 5th Ave	Bioretention (No Underdrain)	46
491080	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	1,959
491080	Los Angeles	S Crenshaw Blvd	Bioretention (No Underdrain)	4,865
491080	Los Angeles	S Denker Ave	Bioretention (No Underdrain)	2,248
491080	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	10,895
491080	Los Angeles	S Halldale Ave	Bioretention (No Underdrain)	2,702
491080	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	2,677
491080	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	464
491080	Los Angeles	S Hoover St	Bioretention (No Underdrain)	4,208
491080	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	1,225
491080	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	1,523
491080	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	9,761
491080	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	6,854
491080	Los Angeles	S Van Ness Pl	Bioretention (No Underdrain)	359
491080	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	14,033
491080	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	7,748
491080	Los Angeles	S Western Ave	Bioretention (No Underdrain)	8,517
491080	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	3,826
491080	Los Angeles	Southwest Dr	Bioretention (No Underdrain)	3,063

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491080	Los Angeles	W 52nd St	Bioretention (No Underdrain)	2
491080	Los Angeles	W 54th St	Bioretention (No Underdrain)	930
491080	Los Angeles	W 57th St	Bioretention (No Underdrain)	4,997
491080	Los Angeles	W 58th Pl	Bioretention (No Underdrain)	1,971
491080	Los Angeles	W 59th Dr	Bioretention (No Underdrain)	26
491080	Los Angeles	W 59th Pl	Bioretention (No Underdrain)	4,616
491080	Los Angeles	W 59th St	Bioretention (No Underdrain)	7,995
491080	Los Angeles	W 60th St	Bioretention (No Underdrain)	9,322
491080	Los Angeles	W 61st St	Bioretention (No Underdrain)	3,102
491080	Los Angeles	W 62nd Pl	Bioretention (No Underdrain)	1,347
491080	Los Angeles	W 62nd St	Bioretention (No Underdrain)	11,215
491080	Los Angeles	W 63rd Pl	Bioretention (No Underdrain)	923
491080	Los Angeles	W 63rd St	Bioretention (No Underdrain)	2,645
491080	Los Angeles	W 64th St	Bioretention (No Underdrain)	8,413
491080	Los Angeles	W 65th Pl	Bioretention (No Underdrain)	9,350
491080	Los Angeles	W 65th St	Bioretention (No Underdrain)	8,738
491080	Los Angeles	W 66th Pl	Bioretention (No Underdrain)	405
491080	Los Angeles	W 66th St	Bioretention (No Underdrain)	9,363
491080	Los Angeles	W 67th St	Bioretention (No Underdrain)	12,512
491080	Los Angeles	W 68th St	Bioretention (No Underdrain)	7,891
491080	Los Angeles	W 69th St	Bioretention (No Underdrain)	4,505
491080	Los Angeles	W 70th St	Bioretention (No Underdrain)	6,517
491080	Los Angeles	W 71st St	Bioretention (No Underdrain)	6,217
491080	Los Angeles	W 73rd St	Bioretention (No Underdrain)	8,185
491080	Los Angeles	W 74th Pl	Bioretention (No Underdrain)	9
491080	Los Angeles	W 74th St	Bioretention (No Underdrain)	8,140
491080	Los Angeles	W 75th Pl	Bioretention (No Underdrain)	7
491080	Los Angeles	W 75th St	Bioretention (No Underdrain)	7,319
491080	Los Angeles	W 76th St	Bioretention (No Underdrain)	6,975
491080	Los Angeles	W 77th St	Bioretention (No Underdrain)	4,608
491080	Los Angeles	W 78th Pl	Bioretention (No Underdrain)	4,616
491080	Los Angeles	W 78th St	Bioretention (No Underdrain)	4,620
491080	Los Angeles	W 79th St	Bioretention (No Underdrain)	4,649
491080	Los Angeles	W 80th St	Bioretention (No Underdrain)	2,645
491080	Los Angeles	W 81st St	Bioretention (No Underdrain)	2,648
491080	Los Angeles	W 82nd St	Bioretention (No Underdrain)	2,635
491080	Los Angeles	W 83rd St	Bioretention (No Underdrain)	2,644
491080	Los Angeles	W 84th Pl	Bioretention (No Underdrain)	2,655
491080	Los Angeles	W 84th St	Bioretention (No Underdrain)	2,643
491080	Los Angeles	W 85th St	Bioretention (No Underdrain)	2,629
491080	Los Angeles	W 88th St	Bioretention (No Underdrain)	1,611
491080	Los Angeles	W 89th St	Bioretention (No Underdrain)	1,501
491080	Los Angeles	W 90th St	Bioretention (No Underdrain)	5
491080	Los Angeles	W Florence Ave	Bioretention (No Underdrain)	9,635
491080	Los Angeles	W Gage Ave	Bioretention (No Underdrain)	9,997
491080	Los Angeles	W Slauson Ave	Bioretention (No Underdrain)	8,346
491080	Los Angeles	West Blvd	Bioretention (No Underdrain)	2,339
491081	Los Angeles	Brighton Ave	Bioretention (No Underdrain)	2,653
491081	Los Angeles	Budlong Ave	Bioretention (No Underdrain)	4,361
491081	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	2,643
491081	Los Angeles	Denker Ave	Bioretention (No Underdrain)	2,714
491081	Los Angeles	Halldale Ave	Bioretention (No Underdrain)	6,304
491081	Los Angeles	Kansas Ave	Bioretention (No Underdrain)	1,924
491081	Los Angeles	Raymond Ave	Bioretention (No Underdrain)	3,460
491081	Los Angeles	S Budlong Ave	Bioretention (No Underdrain)	4,361

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491081	Los Angeles	S Denker Ave	Bioretention (No Underdrain)	2,714
491081	Los Angeles	S Halldale Ave	Bioretention (No Underdrain)	6,304
491081	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	1,318
491081	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	5,822
491081	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	4,449
491081	Los Angeles	W 67th St	Bioretention (No Underdrain)	10
491081	Los Angeles	W 68th St	Bioretention (No Underdrain)	1,365
491081	Los Angeles	W 69th St	Bioretention (No Underdrain)	3,926
491081	Los Angeles	W 70th St	Bioretention (No Underdrain)	3,155
491081	Los Angeles	W 71st St	Bioretention (No Underdrain)	3,110
491081	Los Angeles	W 73rd St	Bioretention (No Underdrain)	2,591
491081	Los Angeles	W 74th St	Bioretention (No Underdrain)	3,942
491081	Los Angeles	W 75th St	Bioretention (No Underdrain)	1,929
491081	Los Angeles	W 76th St	Bioretention (No Underdrain)	3,925
491081	Los Angeles	W 77th St	Bioretention (No Underdrain)	2,618
491081	Los Angeles	W 78th St	Bioretention (No Underdrain)	3,932
491081	Los Angeles	W 79th St	Bioretention (No Underdrain)	3,523
491081	Los Angeles	W 80th St	Bioretention (No Underdrain)	2,324
491081	Los Angeles	W 81st Pl	Bioretention (No Underdrain)	1,109
491081	Los Angeles	W 81st St	Bioretention (No Underdrain)	2,686
491081	Los Angeles	W 82nd St	Bioretention (No Underdrain)	2,353
491081	Los Angeles	W 83rd St	Bioretention (No Underdrain)	2,649
491081	Los Angeles	W 84th Pl	Bioretention (No Underdrain)	1,343
491081	Los Angeles	W 84th St	Bioretention (No Underdrain)	1,355
491081	Los Angeles	W 85th St	Bioretention (No Underdrain)	1,141
491081	Los Angeles	W Florence Ave	Bioretention (No Underdrain)	3,263
491082	Los Angeles	Dalton Ave	Bioretention (No Underdrain)	8
491082	Los Angeles	Denker Ave	Bioretention (No Underdrain)	3,612
491082	Los Angeles	la Salle Ave	Bioretention (No Underdrain)	2,649
491082	Los Angeles	S Denker Ave	Bioretention (No Underdrain)	3,612
491082	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	5,982
491082	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	3,347
491082	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	937
491082	Los Angeles	S Western Ave	Bioretention (No Underdrain)	1,581
491082	Los Angeles	W 69th St	Bioretention (No Underdrain)	41
491082	Los Angeles	W 70th St	Bioretention (No Underdrain)	1,254
491082	Los Angeles	W 71st St	Bioretention (No Underdrain)	1,373
491082	Los Angeles	W 74th St	Bioretention (No Underdrain)	1,295
491082	Los Angeles	W 76th St	Bioretention (No Underdrain)	1,306
491082	Los Angeles	W 78th St	Bioretention (No Underdrain)	1,294
491082	Los Angeles	W 79th St	Bioretention (No Underdrain)	1,248
491082	Los Angeles	W 80th St	Bioretention (No Underdrain)	1,320
491082	Los Angeles	W 81st St	Bioretention (No Underdrain)	1,366
491082	Los Angeles	W 82nd St	Bioretention (No Underdrain)	1,354
491082	Los Angeles	W 83rd St	Bioretention (No Underdrain)	1,333
491082	Los Angeles	W 84th Pl	Bioretention (No Underdrain)	1,306
491082	Los Angeles	W 84th St	Bioretention (No Underdrain)	1,325
491082	Los Angeles	W 85th St	Bioretention (No Underdrain)	1,541
491082	Los Angeles	W 87th St	Bioretention (No Underdrain)	663
491082	Los Angeles	W 88th Pl	Bioretention (No Underdrain)	372
491082	Los Angeles	W 88th St	Bioretention (No Underdrain)	663
491082	Los Angeles	W 89th St	Bioretention (No Underdrain)	606
491082	Los Angeles	W Florence Ave	Bioretention (No Underdrain)	1,361
491083	Los Angeles	Alvira St	Bioretention (No Underdrain)	227
491083	Los Angeles	Cattaraugus Ave	Bioretention (No Underdrain)	2,120

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491083	Los Angeles	Chariton St	Bioretention (No Underdrain)	361
491083	Los Angeles	Cullen St	Bioretention (No Underdrain)	394
491083	Los Angeles	Curtis Ave	Bioretention (No Underdrain)	559
491083	Los Angeles	Curts Ave	Bioretention (No Underdrain)	559
491083	Los Angeles	Fay Ave	Bioretention (No Underdrain)	626
491083	Los Angeles	Hargis St	Bioretention (No Underdrain)	1,968
491083	Los Angeles	Helms Ave	Bioretention (No Underdrain)	843
491083	Los Angeles	Helms Pl	Bioretention (No Underdrain)	606
491083	Los Angeles	Hervey St	Bioretention (No Underdrain)	271
491083	Los Angeles	Hutchison Ave	Bioretention (No Underdrain)	942
491083	Los Angeles	Ivy St	Bioretention (No Underdrain)	586
491083	Los Angeles	Kramerwood Pl	Bioretention (No Underdrain)	672
491083	Los Angeles	la Cienega Ave	Bioretention (No Underdrain)	1,057
491083	Los Angeles	McManus Ave	Bioretention (No Underdrain)	440
491083	Los Angeles	Melvil St	Bioretention (No Underdrain)	1,050
491083	Los Angeles	Olin St	Bioretention (No Underdrain)	710
491083	Los Angeles	Reynier Ave	Bioretention (No Underdrain)	634
491083	Los Angeles	Robertson Pl	Bioretention (No Underdrain)	16
491083	Los Angeles	S Corning St	Bioretention (No Underdrain)	938
491083	Los Angeles	S Garth Ave	Bioretention (No Underdrain)	561
491083	Los Angeles	S Halm Ave	Bioretention (No Underdrain)	707
491083	Los Angeles	S Holt Ave	Bioretention (No Underdrain)	510
491083	Los Angeles	S Shenandoah St	Bioretention (No Underdrain)	540
491083	Los Angeles	S Sherbourne Dr	Bioretention (No Underdrain)	425
491083	Los Angeles	Vera Ave	Bioretention (No Underdrain)	591
491084	Los Angeles	(unknown)	Bioretention (No Underdrain)	2,485
491084	Los Angeles	Airdrome St	Bioretention (No Underdrain)	5,577
491084	Los Angeles	Alcott St	Bioretention (No Underdrain)	4,951
491084	Los Angeles	Alden Dr	Bioretention (No Underdrain)	180
491084	Los Angeles	Arnaz Dr	Bioretention (No Underdrain)	590
491084	Los Angeles	Bagley Ave	Bioretention (No Underdrain)	2,750
491084	Los Angeles	Barton Ave	Bioretention (No Underdrain)	942
491084	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	6,521
491084	Los Angeles	Beverlywood St	Bioretention (No Underdrain)	3,289
491084	Los Angeles	Blackburn Ave	Bioretention (No Underdrain)	1,997
491084	Los Angeles	Bolton Rd	Bioretention (No Underdrain)	716
491084	Los Angeles	Burton Way	Bioretention (No Underdrain)	2,198
491084	Los Angeles	Cadillac Ave	Bioretention (No Underdrain)	3,583
491084	Los Angeles	Capistrano Way	Bioretention (No Underdrain)	125
491084	Los Angeles	Cardiff Ave	Bioretention (No Underdrain)	2,863
491084	Los Angeles	Cashio St	Bioretention (No Underdrain)	6,152
491084	Los Angeles	Chalmers Dr	Bioretention (No Underdrain)	1,810
491084	Los Angeles	Chariton St	Bioretention (No Underdrain)	1,845
491084	Los Angeles	Clinton St	Bioretention (No Underdrain)	3,120
491084	Los Angeles	Colgate Ave	Bioretention (No Underdrain)	4,723
491084	Los Angeles	Commodore Sloat Dr	Bioretention (No Underdrain)	458
491084	Los Angeles	Cresta Dr	Bioretention (No Underdrain)	2,384
491084	Los Angeles	David Ave	Bioretention (No Underdrain)	1,804
491084	Los Angeles	Dayton Way	Bioretention (No Underdrain)	11
491084	Los Angeles	Drexel Ave	Bioretention (No Underdrain)	4,340
491084	Los Angeles	Duxbury Cir	Bioretention (No Underdrain)	33
491084	Los Angeles	Duxbury Rd	Bioretention (No Underdrain)	817
491084	Los Angeles	Edris Dr	Bioretention (No Underdrain)	282
491084	Los Angeles	Eleanor Ave	Bioretention (No Underdrain)	199
491084	Los Angeles	Gibson St	Bioretention (No Underdrain)	965

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491084	Los Angeles	Glenville Dr	Bioretention (No Underdrain)	2,480
491084	Los Angeles	Gregory Way	Bioretention (No Underdrain)	1,593
491084	Los Angeles	Guthrie Ave	Bioretention (No Underdrain)	3,374
491084	Los Angeles	Guthrie Cir	Bioretention (No Underdrain)	44
491084	Los Angeles	Guthrie Dr	Bioretention (No Underdrain)	1,074
491084	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	2,152
491084	Los Angeles	Hayes Dr	Bioretention (No Underdrain)	760
491084	Los Angeles	Hillsboro Ave	Bioretention (No Underdrain)	2,791
491084	Los Angeles	Hillsboro Dr	Bioretention (No Underdrain)	673
491084	Los Angeles	Horner St	Bioretention (No Underdrain)	1,626
491084	Los Angeles	Key St	Bioretention (No Underdrain)	499
491084	Los Angeles	Kirkside Rd	Bioretention (No Underdrain)	1,235
491084	Los Angeles	Larke Ellen Cir	Bioretention (No Underdrain)	1,234
491084	Los Angeles	Le Doux Rd	Bioretention (No Underdrain)	483
491084	Los Angeles	Lindenhurst Ave	Bioretention (No Underdrain)	2,856
491084	Los Angeles	Livonia Ave	Bioretention (No Underdrain)	3,708
491084	Los Angeles	Maryland Dr	Bioretention (No Underdrain)	3,160
491084	Los Angeles	Masselin Ave	Bioretention (No Underdrain)	18
491084	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	1,666
491084	Los Angeles	Monte Mar Dr	Bioretention (No Underdrain)	2,793
491084	Los Angeles	Moore Dr	Bioretention (No Underdrain)	840
491084	Los Angeles	N Alta Vista Blvd	Bioretention (No Underdrain)	758
491084	Los Angeles	N Cherokee Ave	Bioretention (No Underdrain)	2,472
491084	Los Angeles	N Citrus Ave	Bioretention (No Underdrain)	1,975
491084	Los Angeles	N Crescent Heights Blvd	Bioretention (No Underdrain)	630
491084	Los Angeles	N Detroit St	Bioretention (No Underdrain)	1,685
491084	Los Angeles	N Fairfax Ave	Bioretention (No Underdrain)	708
491084	Los Angeles	N Formosa Ave	Bioretention (No Underdrain)	1,688
491084	Los Angeles	N Fuller Ave	Bioretention (No Underdrain)	761
491084	Los Angeles	N Gardner St	Bioretention (No Underdrain)	1,594
491084	Los Angeles	N Hamel Dr	Bioretention (No Underdrain)	0
491084	Los Angeles	N Hayworth Ave	Bioretention (No Underdrain)	619
491084	Los Angeles	N Highland Ave	Bioretention (No Underdrain)	5,295
491084	Los Angeles	N Hudson Ave	Bioretention (No Underdrain)	1,594
491084	Los Angeles	N June St	Bioretention (No Underdrain)	4,047
491084	Los Angeles	N Kilkea Dr	Bioretention (No Underdrain)	638
491084	Los Angeles	N La Brea Ave	Bioretention (No Underdrain)	1,974
491084	Los Angeles	N La Cienega Blvd	Bioretention (No Underdrain)	1
491084	Los Angeles	N Las Palmas Ave	Bioretention (No Underdrain)	4,490
491084	Los Angeles	N Laurel Ave	Bioretention (No Underdrain)	621
491084	Los Angeles	N Le Doux Rd	Bioretention (No Underdrain)	0
491084	Los Angeles	N Mansfield Ave	Bioretention (No Underdrain)	2,006
491084	Los Angeles	N Martel Ave	Bioretention (No Underdrain)	763
491084	Los Angeles	N Mc Cadden Pl	Bioretention (No Underdrain)	3,310
491084	Los Angeles	N McCadden Pl	Bioretention (No Underdrain)	3,842
491084	Los Angeles	N Orange Dr	Bioretention (No Underdrain)	1,976
491084	Los Angeles	N Poinsettia Pl	Bioretention (No Underdrain)	759
491084	Los Angeles	N Robertson Blvd	Bioretention (No Underdrain)	833
491084	Los Angeles	N San Vicente Blvd	Bioretention (No Underdrain)	56
491084	Los Angeles	N Stanley Dr	Bioretention (No Underdrain)	0
491084	Los Angeles	N Sycamore Ave	Bioretention (No Underdrain)	1,981
491084	Los Angeles	N Vista St	Bioretention (No Underdrain)	765
491084	Los Angeles	Oakmore Rd	Bioretention (No Underdrain)	1,192
491084	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	553
491084	Los Angeles	Olin St	Bioretention (No Underdrain)	1,474

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491084	Los Angeles	Olympic Pl	Bioretention (No Underdrain)	323
491084	Los Angeles	Orange Ave	Bioretention (No Underdrain)	2,167
491084	Los Angeles	Orange St	Bioretention (No Underdrain)	3,301
491084	Los Angeles	Packard St	Bioretention (No Underdrain)	760
491084	Los Angeles	Pickford Pl	Bioretention (No Underdrain)	209
491084	Los Angeles	Pickford St	Bioretention (No Underdrain)	4,429
491084	Los Angeles	Preuss Rd	Bioretention (No Underdrain)	3,589
491084	Los Angeles	Reeves St	Bioretention (No Underdrain)	1,404
491084	Los Angeles	Rexford Dr	Bioretention (No Underdrain)	787
491084	Los Angeles	Reynier Ave	Bioretention (No Underdrain)	750
491084	Los Angeles	Robertson Blvd	Bioretention (No Underdrain)	833
491084	Los Angeles	Romaine St	Bioretention (No Underdrain)	1,924
491084	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	3,022
491084	Los Angeles	S Alfred St	Bioretention (No Underdrain)	2,301
491084	Los Angeles	S Almont Dr	Bioretention (No Underdrain)	121
491084	Los Angeles	S Alta Vista Blvd	Bioretention (No Underdrain)	1,568
491084	Los Angeles	S Bedford St	Bioretention (No Underdrain)	9,684
491084	Los Angeles	S Beverly Dr	Bioretention (No Underdrain)	4,105
491084	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	118
491084	Los Angeles	S Canfield Ave	Bioretention (No Underdrain)	3,334
491084	Los Angeles	S Carson Rd	Bioretention (No Underdrain)	0
491084	Los Angeles	S Clark Dr	Bioretention (No Underdrain)	900
491084	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	32
491084	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	35
491084	Los Angeles	S Corning St	Bioretention (No Underdrain)	6,013
491084	Los Angeles	S Crescent Heights Blvd	Bioretention (No Underdrain)	2,170
491084	Los Angeles	S Crest Dr	Bioretention (No Underdrain)	4,056
491084	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	21
491084	Los Angeles	S Detroit St	Bioretention (No Underdrain)	1,713
491084	Los Angeles	S Doheny Dr	Bioretention (No Underdrain)	2,188
491084	Los Angeles	S Durango Ave	Bioretention (No Underdrain)	3,612
491084	Los Angeles	S Edinburgh Ave	Bioretention (No Underdrain)	1,142
491084	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	3,833
491084	Los Angeles	S Formosa Ave	Bioretention (No Underdrain)	1,667
491084	Los Angeles	S Fuller Ave	Bioretention (No Underdrain)	1,439
491084	Los Angeles	S Gardner St	Bioretention (No Underdrain)	1,167
491084	Los Angeles	S Garth Ave	Bioretention (No Underdrain)	3,663
491084	Los Angeles	S Halm Ave	Bioretention (No Underdrain)	1,570
491084	Los Angeles	S Hamel Dr	Bioretention (No Underdrain)	0
491084	Los Angeles	S Hamel Rd	Bioretention (No Underdrain)	588
491084	Los Angeles	S Hayworth Ave	Bioretention (No Underdrain)	843
491084	Los Angeles	S Holt Ave	Bioretention (No Underdrain)	10,412
491084	Los Angeles	S Kilkea Dr	Bioretention (No Underdrain)	734
491084	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	8,398
491084	Los Angeles	S la Jolla Ave	Bioretention (No Underdrain)	3,180
491084	Los Angeles	S la Peer Dr	Bioretention (No Underdrain)	787
491084	Los Angeles	S Laurel Ave	Bioretention (No Underdrain)	844
491084	Los Angeles	S Le Doux Rd	Bioretention (No Underdrain)	473
491084	Los Angeles	S Maple Dr	Bioretention (No Underdrain)	0
491084	Los Angeles	S Martel Ave	Bioretention (No Underdrain)	1,306
491084	Los Angeles	S Oakhurst Dr	Bioretention (No Underdrain)	2,626
491084	Los Angeles	S Ogden Dr	Bioretention (No Underdrain)	828
491084	Los Angeles	S Orlando Ave	Bioretention (No Underdrain)	2,438
491084	Los Angeles	S Poinsettia Pl	Bioretention (No Underdrain)	1,483
491084	Los Angeles	S Preuss Rd	Bioretention (No Underdrain)	2,114

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491084	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	17
491084	Los Angeles	S Robertson Blvd	Bioretention (No Underdrain)	7,219
491084	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	2,839
491084	Los Angeles	S Shenandoah St	Bioretention (No Underdrain)	10,165
491084	Los Angeles	S Sherbourne Dr	Bioretention (No Underdrain)	9,134
491084	Los Angeles	S Sierra Bonita Ave	Bioretention (No Underdrain)	41
491084	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	3
491084	Los Angeles	S Stanley Dr	Bioretention (No Underdrain)	0
491084	Los Angeles	S Swall Dr	Bioretention (No Underdrain)	835
491084	Los Angeles	S Sweetzer Ave	Bioretention (No Underdrain)	3,125
491084	Los Angeles	S Vista St	Bioretention (No Underdrain)	561
491084	Los Angeles	S Wetherly Dr	Bioretention (No Underdrain)	782
491084	Los Angeles	S Willaman Dr	Bioretention (No Underdrain)	586
491084	Los Angeles	S Wooster St	Bioretention (No Underdrain)	6,769
491084	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	511
491084	Los Angeles	Santa Ynez Way	Bioretention (No Underdrain)	820
491084	Los Angeles	Saturn St	Bioretention (No Underdrain)	1,608
491084	Los Angeles	Sawyer St	Bioretention (No Underdrain)	5,617
491084	Los Angeles	Schumacher Dr	Bioretention (No Underdrain)	2,155
491084	Los Angeles	Seward St	Bioretention (No Underdrain)	1,867
491084	Los Angeles	Stanley Ave	Bioretention (No Underdrain)	250
491084	Los Angeles	State Rte 170	Bioretention (No Underdrain)	1,363
491084	Los Angeles	The Grove Dr	Bioretention (No Underdrain)	250
491084	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	329
491084	Los Angeles	W 18th St	Bioretention (No Underdrain)	2,947
491084	Los Angeles	W 1st St	Bioretention (No Underdrain)	2,369
491084	Los Angeles	W 24th St	Bioretention (No Underdrain)	1,816
491084	Los Angeles	W 25th St	Bioretention (No Underdrain)	1,829
491084	Los Angeles	W 2nd St	Bioretention (No Underdrain)	2,053
491084	Los Angeles	W 3rd St	Bioretention (No Underdrain)	7,036
491084	Los Angeles	W 4th St	Bioretention (No Underdrain)	2,211
491084	Los Angeles	W 5th St	Bioretention (No Underdrain)	3,201
491084	Los Angeles	W 6th St	Bioretention (No Underdrain)	5,095
491084	Los Angeles	W Clinton St	Bioretention (No Underdrain)	295
491084	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	3,537
491084	Los Angeles	W Orange St	Bioretention (No Underdrain)	1,134
491084	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	6,118
491084	Los Angeles	W Rosewood Ave	Bioretention (No Underdrain)	511
491084	Los Angeles	W Wilshire Blvd	Bioretention (No Underdrain)	178
491084	Los Angeles	Waring Ave	Bioretention (No Underdrain)	1,937
491084	Los Angeles	Whitworth Dr	Bioretention (No Underdrain)	5,079
491084	Los Angeles	Willoughby Ave	Bioretention (No Underdrain)	2,240
491084	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	1,882
491085	Los Angeles	(unknown)	Bioretention (No Underdrain)	70
491085	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	735
491085	Los Angeles	Clinton St	Bioretention (No Underdrain)	735
491085	Los Angeles	N Edinburgh Ave	Bioretention (No Underdrain)	3,416
491085	Los Angeles	N Fairfax Ave	Bioretention (No Underdrain)	2,341
491085	Los Angeles	N Hayworth Ave	Bioretention (No Underdrain)	2,797
491085	Los Angeles	N Ogden Dr	Bioretention (No Underdrain)	11
491085	Los Angeles	N Orange Grove Ave	Bioretention (No Underdrain)	52
491085	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	770
491085	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	1,632
491085	Los Angeles	S Edinburgh Ave	Bioretention (No Underdrain)	38
491085	Los Angeles	W 1st St	Bioretention (No Underdrain)	302

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491086	Los Angeles	N Citrus Ave	Biofiltration (Underdrain)	730
491086	Los Angeles	N Highland Ave	Biofiltration (Underdrain)	1,453
491086	Los Angeles	N La Brea Ave	Biofiltration (Underdrain)	741
491086	Los Angeles	N Las Palmas Ave	Biofiltration (Underdrain)	719
491086	Los Angeles	N Mansfield Ave	Biofiltration (Underdrain)	732
491086	Los Angeles	N Mc Cadden Pl	Biofiltration (Underdrain)	729
491086	Los Angeles	N McCadden Pl	Biofiltration (Underdrain)	729
491086	Los Angeles	N Orange Dr	Biofiltration (Underdrain)	735
491086	Los Angeles	N Sycamore Ave	Biofiltration (Underdrain)	738
491086	Los Angeles	Oakwood Ave	Biofiltration (Underdrain)	2,919
491087	Los Angeles	N Alta Vista Blvd	Biofiltration (Underdrain)	932
491087	Los Angeles	N Fuller Ave	Biofiltration (Underdrain)	933
491087	Los Angeles	N Martel Ave	Biofiltration (Underdrain)	934
491087	Los Angeles	N Poinsettia Pl	Biofiltration (Underdrain)	933
491087	Los Angeles	N Vista St	Biofiltration (Underdrain)	934
491087	Los Angeles	S Alta Vista Blvd	Biofiltration (Underdrain)	67
491087	Los Angeles	S Fuller Ave	Biofiltration (Underdrain)	17
491087	Los Angeles	S Martel Ave	Biofiltration (Underdrain)	16
491087	Los Angeles	S Poinsettia Pl	Biofiltration (Underdrain)	18
491087	Los Angeles	S Vista St	Biofiltration (Underdrain)	679
491087	Los Angeles	W 1st St	Biofiltration (Underdrain)	1,883
491088	Los Angeles	(unknown)	Biofiltration (Underdrain)	719
491088	Los Angeles	Achilles Dr	Biofiltration (Underdrain)	853
491088	Los Angeles	Allenwood Rd	Biofiltration (Underdrain)	1,035
491088	Los Angeles	Amor Rd	Biofiltration (Underdrain)	263
491088	Los Angeles	Apollo Dr	Biofiltration (Underdrain)	231
491088	Los Angeles	Appian Way	Biofiltration (Underdrain)	463
491088	Los Angeles	Astral Dr	Biofiltration (Underdrain)	130
491088	Los Angeles	Baseline Trl	Biofiltration (Underdrain)	114
491088	Los Angeles	Beech Knoll Rd	Biofiltration (Underdrain)	21
491088	Los Angeles	Bellgave Pl	Biofiltration (Underdrain)	55
491088	Los Angeles	Beverly Blvd	Biofiltration (Underdrain)	2,212
491088	Los Angeles	Bohita Ter	Biofiltration (Underdrain)	135
491088	Los Angeles	Briar Summit Dr	Biofiltration (Underdrain)	268
491088	Los Angeles	Brier Dr	Biofiltration (Underdrain)	154
491088	Los Angeles	Byron Pl	Biofiltration (Underdrain)	186
491088	Los Angeles	Cahuenga Blvd E	Biofiltration (Underdrain)	99
491088	Los Angeles	Cahuenga Blvd W	Biofiltration (Underdrain)	849
491088	Los Angeles	Cahuenga Ter	Biofiltration (Underdrain)	35
491088	Los Angeles	Camino Palmero St	Biofiltration (Underdrain)	741
491088	Los Angeles	Camrose Dr	Biofiltration (Underdrain)	500
491088	Los Angeles	Cardwell Pl	Biofiltration (Underdrain)	167
491088	Los Angeles	Carman Crest Dr	Biofiltration (Underdrain)	77
491088	Los Angeles	Carmar Dr	Biofiltration (Underdrain)	1,299
491088	Los Angeles	Carmar Pl	Biofiltration (Underdrain)	94
491088	Los Angeles	Cassil Pl	Biofiltration (Underdrain)	520
491088	Los Angeles	Castilian Dr	Biofiltration (Underdrain)	66
491088	Los Angeles	Cervantes Pl	Biofiltration (Underdrain)	6
491088	Los Angeles	Chandelle Pl	Biofiltration (Underdrain)	127
491088	Los Angeles	Chandelle Rd	Biofiltration (Underdrain)	528
491088	Los Angeles	Charl Ln	Biofiltration (Underdrain)	76
491088	Los Angeles	Charl Pl	Biofiltration (Underdrain)	129
491088	Los Angeles	Chelan Dr	Biofiltration (Underdrain)	54
491088	Los Angeles	Clinton St	Biofiltration (Underdrain)	4,289
491088	Los Angeles	Colecrest Dr	Biofiltration (Underdrain)	36

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491088	Los Angeles	Coreyell Pl	Biofiltration (Underdrain)	234
491088	Los Angeles	Courtney Ave	Biofiltration (Underdrain)	1,693
491088	Los Angeles	Crescent Dr	Biofiltration (Underdrain)	68
491088	Los Angeles	Crest View Dr	Biofiltration (Underdrain)	670
491088	Los Angeles	Curson Ave	Biofiltration (Underdrain)	49
491088	Los Angeles	Curson Pl	Biofiltration (Underdrain)	56
491088	Los Angeles	Curson Ter	Biofiltration (Underdrain)	31
491088	Los Angeles	de Longpre Ave	Biofiltration (Underdrain)	5,631
491088	Los Angeles	Devista Dr	Biofiltration (Underdrain)	251
491088	Los Angeles	Diane Way	Biofiltration (Underdrain)	19
491088	Los Angeles	Dominion Way	Biofiltration (Underdrain)	9
491088	Los Angeles	Eastwood Rd	Biofiltration (Underdrain)	62
491088	Los Angeles	Edwin Dr	Biofiltration (Underdrain)	638
491088	Los Angeles	el Cerrito Pl	Biofiltration (Underdrain)	1,732
491088	Los Angeles	el Rita Dr	Biofiltration (Underdrain)	64
491088	Los Angeles	Electra Dr	Biofiltration (Underdrain)	109
491088	Los Angeles	Fareholm Dr	Biofiltration (Underdrain)	116
491088	Los Angeles	Firenze Ave	Biofiltration (Underdrain)	14
491088	Los Angeles	Firenze Pl	Biofiltration (Underdrain)	13
491088	Los Angeles	Floye Dr	Biofiltration (Underdrain)	244
491088	Los Angeles	Flynn Ranch Rd	Biofiltration (Underdrain)	18
491088	Los Angeles	Fountain Ave	Biofiltration (Underdrain)	2,501
491088	Los Angeles	Franklin Ave	Biofiltration (Underdrain)	4,714
491088	Los Angeles	Franklin Pl	Biofiltration (Underdrain)	439
491088	Los Angeles	Genesee Ave	Biofiltration (Underdrain)	50
491088	Los Angeles	Glencoe Way	Biofiltration (Underdrain)	4
491088	Los Angeles	Grace Ave	Biofiltration (Underdrain)	640
491088	Los Angeles	Grandview Dr	Biofiltration (Underdrain)	78
491088	Los Angeles	Green View Pl	Biofiltration (Underdrain)	216
491088	Los Angeles	Greenvally Rd	Biofiltration (Underdrain)	245
491088	Los Angeles	Groveland Dr	Biofiltration (Underdrain)	29
491088	Los Angeles	Harlesden Ct	Biofiltration (Underdrain)	23
491088	Los Angeles	Hawthorn Ave	Biofiltration (Underdrain)	5,220
491088	Los Angeles	Hemet Pl	Biofiltration (Underdrain)	180
491088	Los Angeles	Hercules Dr	Biofiltration (Underdrain)	1,382
491088	Los Angeles	Hermes Dr	Biofiltration (Underdrain)	123
491088	Los Angeles	High Tower Dr	Biofiltration (Underdrain)	133
491088	Los Angeles	Higman Ave	Biofiltration (Underdrain)	203
491088	Los Angeles	Hillcrest Rd	Biofiltration (Underdrain)	546
491088	Los Angeles	Hillside Ave	Biofiltration (Underdrain)	1,117
491088	Los Angeles	Holly Pl	Biofiltration (Underdrain)	14
491088	Los Angeles	Hollycrest Pl	Biofiltration (Underdrain)	31
491088	Los Angeles	Hollywood Blvd	Biofiltration (Underdrain)	9,558
491088	Los Angeles	Hollywood Hills Rd	Biofiltration (Underdrain)	62
491088	Los Angeles	Honey Dr	Biofiltration (Underdrain)	9
491088	Los Angeles	Jalmia Dr	Biofiltration (Underdrain)	178
491088	Los Angeles	Jalmia Way	Biofiltration (Underdrain)	5
491088	Los Angeles	Jewett Dr	Biofiltration (Underdrain)	35
491088	Los Angeles	Jorderr Ave	Biofiltration (Underdrain)	28
491088	Los Angeles	Jupiter Dr	Biofiltration (Underdrain)	565
491088	Los Angeles	Kimdale Ln	Biofiltration (Underdrain)	239
491088	Los Angeles	Kirkwood Dr	Biofiltration (Underdrain)	323
491088	Los Angeles	la Castana Dr	Biofiltration (Underdrain)	633
491088	Los Angeles	la Presa Dr	Biofiltration (Underdrain)	33
491088	Los Angeles	Lakeridge Pl	Biofiltration (Underdrain)	58

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491088	Los Angeles	Lakeridge Rd	Biofiltration (Underdrain)	292
491088	Los Angeles	Lanewood Ave	Biofiltration (Underdrain)	938
491088	Los Angeles	Larmar Rd	Biofiltration (Underdrain)	12
491088	Los Angeles	Laurel Pass	Biofiltration (Underdrain)	1,600
491088	Los Angeles	Laurelmont Dr	Biofiltration (Underdrain)	76
491088	Los Angeles	Laurelmont Pl	Biofiltration (Underdrain)	75
491088	Los Angeles	Leland Way	Biofiltration (Underdrain)	1,404
491088	Los Angeles	Lexington Ave	Biofiltration (Underdrain)	2,791
491088	Los Angeles	Lolina Ln	Biofiltration (Underdrain)	428
491088	Los Angeles	Longdale Ln	Biofiltration (Underdrain)	2
491088	Los Angeles	Lookout Mountain Ave	Biofiltration (Underdrain)	1,013
491088	Los Angeles	Los Tilos Rd	Biofiltration (Underdrain)	89
491088	Los Angeles	Lulu Glen Dr	Biofiltration (Underdrain)	186
491088	Los Angeles	Macapa Dr	Biofiltration (Underdrain)	655
491088	Los Angeles	Maravilla Dr	Biofiltration (Underdrain)	163
491088	Los Angeles	Mariscal Ln	Biofiltration (Underdrain)	30
491088	Los Angeles	Marshfield Way	Biofiltration (Underdrain)	848
491088	Los Angeles	McCadden Pl	Biofiltration (Underdrain)	592
491088	Los Angeles	Melrose Ave	Biofiltration (Underdrain)	6,998
491088	Los Angeles	Merrywood Ter	Biofiltration (Underdrain)	10
491088	Los Angeles	Milner Ave	Biofiltration (Underdrain)	233
491088	Los Angeles	Milner Rd	Biofiltration (Underdrain)	38
491088	Los Angeles	Mount Olympus Dr	Biofiltration (Underdrain)	578
491088	Los Angeles	Mulholland Dr	Biofiltration (Underdrain)	587
491088	Los Angeles	Mulholland Ter	Biofiltration (Underdrain)	193
491088	Los Angeles	N Allenwood Rd	Biofiltration (Underdrain)	423
491088	Los Angeles	N Alta Vista Blvd	Biofiltration (Underdrain)	4,397
491088	Los Angeles	N Cahuenga Blvd	Biofiltration (Underdrain)	230
491088	Los Angeles	N Charl Pl	Biofiltration (Underdrain)	129
491088	Los Angeles	N Cherokee Ave	Biofiltration (Underdrain)	3,605
491088	Los Angeles	N Citrus Ave	Biofiltration (Underdrain)	3,853
491088	Los Angeles	N Crescent Heights Blvd	Biofiltration (Underdrain)	97
491088	Los Angeles	N Crest View Dr	Biofiltration (Underdrain)	416
491088	Los Angeles	N Curson Ave	Biofiltration (Underdrain)	7,129
491088	Los Angeles	N Detroit St	Biofiltration (Underdrain)	4,923
491088	Los Angeles	N Fairfax Ave	Biofiltration (Underdrain)	5,270
491088	Los Angeles	N Formosa Ave	Biofiltration (Underdrain)	6,230
491088	Los Angeles	N Fuller Ave	Biofiltration (Underdrain)	6,601
491088	Los Angeles	N Gardner St	Biofiltration (Underdrain)	6,023
491088	Los Angeles	N Genesee Ave	Biofiltration (Underdrain)	6,392
491088	Los Angeles	N Grace Ave	Biofiltration (Underdrain)	378
491088	Los Angeles	N Green View Pl	Biofiltration (Underdrain)	216
491088	Los Angeles	N Greenvalley Rd	Biofiltration (Underdrain)	245
491088	Los Angeles	N Hayworth Ave	Biofiltration (Underdrain)	737
491088	Los Angeles	N Highland Ave	Biofiltration (Underdrain)	1,161
491088	Los Angeles	N Holly Pl	Biofiltration (Underdrain)	14
491088	Los Angeles	N Hudson Ave	Biofiltration (Underdrain)	663
491088	Los Angeles	N June St	Biofiltration (Underdrain)	649
491088	Los Angeles	N la Brea Ave	Biofiltration (Underdrain)	5,475
491088	Los Angeles	N Las Alturas St	Biofiltration (Underdrain)	49
491088	Los Angeles	N Las Palmas Ave	Biofiltration (Underdrain)	5,166
491088	Los Angeles	N Laurel Ave	Biofiltration (Underdrain)	1,020
491088	Los Angeles	N Laurel Canyon Pl	Biofiltration (Underdrain)	12
491088	Los Angeles	N Laurel Pass	Biofiltration (Underdrain)	1,122
491088	Los Angeles	N Mansfield Ave	Biofiltration (Underdrain)	4,928

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491088	Los Angeles	N Mariscal Ln	Biofiltration (Underdrain)	30
491088	Los Angeles	N Martel Ave	Biofiltration (Underdrain)	6,251
491088	Los Angeles	N McCadden Pl	Biofiltration (Underdrain)	4,163
491088	Los Angeles	N Ogden Dr	Biofiltration (Underdrain)	5,431
491088	Los Angeles	N Orange Dr	Biofiltration (Underdrain)	7,032
491088	Los Angeles	N Orange Grove Ave	Biofiltration (Underdrain)	5,113
491088	Los Angeles	N Orchid Ave	Biofiltration (Underdrain)	81
491088	Los Angeles	N Poinsettia Pl	Biofiltration (Underdrain)	6,216
491088	Los Angeles	N Ridgemont Dr	Biofiltration (Underdrain)	11
491088	Los Angeles	N Rockledge Rd	Biofiltration (Underdrain)	24
491088	Los Angeles	N Sierra Bonita Ave	Biofiltration (Underdrain)	6,943
491088	Los Angeles	N Skyline Dr	Biofiltration (Underdrain)	8
491088	Los Angeles	N Spaulding Ave	Biofiltration (Underdrain)	5,190
491088	Los Angeles	N Stanley Ave	Biofiltration (Underdrain)	6,854
491088	Los Angeles	N Sunset Crest Dr	Biofiltration (Underdrain)	13
491088	Los Angeles	N Sycamore Ave	Biofiltration (Underdrain)	6,397
491088	Los Angeles	N Vado Dr	Biofiltration (Underdrain)	9
491088	Los Angeles	N Vista St	Biofiltration (Underdrain)	6,511
491088	Los Angeles	N Wilcox Ave	Biofiltration (Underdrain)	33
491088	Los Angeles	N Woodland Dr	Biofiltration (Underdrain)	18
491088	Los Angeles	Nash Dr	Biofiltration (Underdrain)	5
491088	Los Angeles	Nicholas Canyon Pl	Biofiltration (Underdrain)	499
491088	Los Angeles	Nichols Canyon Rd	Biofiltration (Underdrain)	4,519
491088	Los Angeles	Oak St	Biofiltration (Underdrain)	55
491088	Los Angeles	Oakstone Way	Biofiltration (Underdrain)	216
491088	Los Angeles	Oakwood Ave	Biofiltration (Underdrain)	5,254
491088	Los Angeles	Oceanus Dr	Biofiltration (Underdrain)	21
491088	Los Angeles	Odin St	Biofiltration (Underdrain)	61
491088	Los Angeles	Okean Pl	Biofiltration (Underdrain)	150
491088	Los Angeles	Okean Ter	Biofiltration (Underdrain)	410
491088	Los Angeles	Oporto Dr	Biofiltration (Underdrain)	73
491088	Los Angeles	Orchid Ave	Biofiltration (Underdrain)	497
491088	Los Angeles	Outpost Cir	Biofiltration (Underdrain)	135
491088	Los Angeles	Outpost Cove Dr	Biofiltration (Underdrain)	23
491088	Los Angeles	Outpost Dr	Biofiltration (Underdrain)	2,140
491088	Los Angeles	Padre Ter	Biofiltration (Underdrain)	29
491088	Los Angeles	Pinehurst Rd	Biofiltration (Underdrain)	293
491088	Los Angeles	Pyramid Pl	Biofiltration (Underdrain)	1
491088	Los Angeles	Reppert Ct	Biofiltration (Underdrain)	3
491088	Los Angeles	Ridgemont Dr	Biofiltration (Underdrain)	11
491088	Los Angeles	Ridpath Dr	Biofiltration (Underdrain)	26
491088	Los Angeles	Rockledge Rd	Biofiltration (Underdrain)	24
491088	Los Angeles	Romaine St	Biofiltration (Underdrain)	2,540
491088	Los Angeles	Rosewood Ave	Biofiltration (Underdrain)	4,329
491088	Los Angeles	Runyon Canyon Rd	Biofiltration (Underdrain)	13
491088	Los Angeles	Schrader Blvd	Biofiltration (Underdrain)	1,185
491088	Los Angeles	Seattle Dr	Biofiltration (Underdrain)	264
491088	Los Angeles	Seattle Pl	Biofiltration (Underdrain)	41
491088	Los Angeles	Selma Ave	Biofiltration (Underdrain)	4,434
491088	Los Angeles	Senalda Rd	Biofiltration (Underdrain)	163
491088	Los Angeles	Sierra Bonita Ave	Biofiltration (Underdrain)	4,010
491088	Los Angeles	Skyline Dr	Biofiltration (Underdrain)	241
491088	Los Angeles	Solar Dr	Biofiltration (Underdrain)	39
491088	Los Angeles	Soper Dr	Biofiltration (Underdrain)	67
491088	Los Angeles	Stanley Ave	Biofiltration (Underdrain)	1,430

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491088	Los Angeles	Stanley Hills Dr	Biofiltration (Underdrain)	498
491088	Los Angeles	Stanley Hills Pl	Biofiltration (Underdrain)	57
491088	Los Angeles	State Rte 170	Biofiltration (Underdrain)	1,151
491088	Los Angeles	Sunny Cove	Biofiltration (Underdrain)	40
491088	Los Angeles	Sunnydell Trl	Biofiltration (Underdrain)	36
491088	Los Angeles	Sunnywood Ln	Biofiltration (Underdrain)	294
491088	Los Angeles	Sunset Crest Dr	Biofiltration (Underdrain)	13
491088	Los Angeles	Sunset Plaza Dr	Biofiltration (Underdrain)	76
491088	Los Angeles	Thames Pl	Biofiltration (Underdrain)	0
491088	Los Angeles	Thames St	Biofiltration (Underdrain)	24
491088	Los Angeles	The Grove Dr	Biofiltration (Underdrain)	1,430
491088	Los Angeles	Tianna Rd	Biofiltration (Underdrain)	25
491088	Los Angeles	Torreyson Dr	Biofiltration (Underdrain)	377
491088	Los Angeles	Torreyson Pl	Biofiltration (Underdrain)	96
491088	Los Angeles	Treasure Trl	Biofiltration (Underdrain)	51
491088	Los Angeles	Upper Kress St	Biofiltration (Underdrain)	10
491088	Los Angeles	Vado Dr	Biofiltration (Underdrain)	9
491088	Los Angeles	Venus Dr	Biofiltration (Underdrain)	185
491088	Los Angeles	Vista Crest Dr	Biofiltration (Underdrain)	98
491088	Los Angeles	Vista Pl	Biofiltration (Underdrain)	285
491088	Los Angeles	W Alta Loma Ter	Biofiltration (Underdrain)	63
491088	Los Angeles	W Brier Dr	Biofiltration (Underdrain)	154
491088	Los Angeles	W Byron Pl	Biofiltration (Underdrain)	186
491088	Los Angeles	W Camrose Dr	Biofiltration (Underdrain)	293
491088	Los Angeles	W Char Ln	Biofiltration (Underdrain)	76
491088	Los Angeles	W Colecrest Dr	Biofiltration (Underdrain)	36
491088	Los Angeles	W Crest View Dr	Biofiltration (Underdrain)	124
491088	Los Angeles	W Edwin Dr	Biofiltration (Underdrain)	381
491088	Los Angeles	W Elusive Dr	Biofiltration (Underdrain)	5
491088	Los Angeles	W Franklin Ave	Biofiltration (Underdrain)	80
491088	Los Angeles	W Grand View Dr	Biofiltration (Underdrain)	78
491088	Los Angeles	W Hiller Pl	Biofiltration (Underdrain)	125
491088	Los Angeles	W Hollywood Blvd	Biofiltration (Underdrain)	1,322
491088	Los Angeles	W Hollywood Hills Rd	Biofiltration (Underdrain)	62
491088	Los Angeles	W Kirkwood Dr	Biofiltration (Underdrain)	32
491088	Los Angeles	W Lexington Ave	Biofiltration (Underdrain)	151
491088	Los Angeles	W Melrose Ave	Biofiltration (Underdrain)	357
491088	Los Angeles	W Milner Rd	Biofiltration (Underdrain)	233
491088	Los Angeles	W Oak St	Biofiltration (Underdrain)	55
491088	Los Angeles	W Romaine St	Biofiltration (Underdrain)	170
491088	Los Angeles	W Selma Ave	Biofiltration (Underdrain)	825
491088	Los Angeles	W Skyline Dr	Biofiltration (Underdrain)	335
491088	Los Angeles	W Walnut Dr	Biofiltration (Underdrain)	49
491088	Los Angeles	W Willoughby Ave	Biofiltration (Underdrain)	131
491088	Los Angeles	W Wonderland Ave	Biofiltration (Underdrain)	711
491088	Los Angeles	W Wonderland Park Ave	Biofiltration (Underdrain)	361
491088	Los Angeles	W Yucca St	Biofiltration (Underdrain)	148
491088	Los Angeles	W Yucca Trl	Biofiltration (Underdrain)	11
491088	Los Angeles	Walnut Dr	Biofiltration (Underdrain)	49
491088	Los Angeles	Waring Ave	Biofiltration (Underdrain)	6,969
491088	Los Angeles	Wattles Dr	Biofiltration (Underdrain)	24
491088	Los Angeles	Weepah Way	Biofiltration (Underdrain)	20
491088	Los Angeles	Westbrook Ave	Biofiltration (Underdrain)	358
491088	Los Angeles	Whitley Ave	Biofiltration (Underdrain)	1,365
491088	Los Angeles	Whitley Ter	Biofiltration (Underdrain)	108

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491088	Los Angeles	Willoughby Ave	Biofiltration (Underdrain)	7,157
491088	Los Angeles	Willow Glen Rd	Biofiltration (Underdrain)	1,253
491088	Los Angeles	Wonder View Dr	Biofiltration (Underdrain)	16
491088	Los Angeles	Wonder View Plz	Biofiltration (Underdrain)	48
491088	Los Angeles	Wonderland Ave	Biofiltration (Underdrain)	727
491088	Los Angeles	Wonderland Park Ave	Biofiltration (Underdrain)	361
491088	Los Angeles	Wonderview Plz	Biofiltration (Underdrain)	48
491088	Los Angeles	Woodland Way	Biofiltration (Underdrain)	18
491088	Los Angeles	Woodrow Wilson Dr	Biofiltration (Underdrain)	1,734
491088	Los Angeles	Woodstock Rd	Biofiltration (Underdrain)	267
491088	Los Angeles	Woody Trl	Biofiltration (Underdrain)	27
491088	Los Angeles	Wyndham Rd	Biofiltration (Underdrain)	25
491088	Los Angeles	Yucca Ln	Biofiltration (Underdrain)	43
491088	Los Angeles	Yucca St	Biofiltration (Underdrain)	2,491
491088	Los Angeles	Yucca Trl	Biofiltration (Underdrain)	11
491088	Los Angeles	Zeus Dr	Biofiltration (Underdrain)	357
491088	Los Angeles	Zorada Dr	Biofiltration (Underdrain)	215
491089	Los Angeles	(unknown)	Bioretention (No Underdrain)	28
491089	Los Angeles	Blackburn Ave	Bioretention (No Underdrain)	738
491089	Los Angeles	Colgate Ave	Bioretention (No Underdrain)	897
491089	Los Angeles	S Crescent Heights Blvd	Bioretention (No Underdrain)	132
491089	Los Angeles	S Edinburgh Ave	Bioretention (No Underdrain)	902
491089	Los Angeles	S Hayworth Ave	Bioretention (No Underdrain)	28
491089	Los Angeles	W 4th St	Bioretention (No Underdrain)	768
491090	Los Angeles	(unknown)	Bioretention (No Underdrain)	77
491090	Los Angeles	Arnaz Dr	Bioretention (No Underdrain)	432
491090	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	2,526
491090	Los Angeles	Blackburn Ave	Bioretention (No Underdrain)	993
491090	Los Angeles	Burton Way	Bioretention (No Underdrain)	4,535
491090	Los Angeles	Clinton St	Bioretention (No Underdrain)	1,941
491090	Los Angeles	Colgate Ave	Bioretention (No Underdrain)	1,814
491090	Los Angeles	Grandview Dr	Bioretention (No Underdrain)	54
491090	Los Angeles	Harold Way	Bioretention (No Underdrain)	36
491090	Los Angeles	Havenhurst Dr	Bioretention (No Underdrain)	196
491090	Los Angeles	Hollywood Blvd	Bioretention (No Underdrain)	221
491090	Los Angeles	Le Doux Rd	Bioretention (No Underdrain)	300
491090	Los Angeles	Marlay Dr	Bioretention (No Underdrain)	1
491090	Los Angeles	Marmont Ave	Bioretention (No Underdrain)	66
491090	Los Angeles	Marmont Ln	Bioretention (No Underdrain)	108
491090	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	3,038
491090	Los Angeles	Miller Dr	Bioretention (No Underdrain)	19
491090	Los Angeles	N Crescent Heights Blvd	Bioretention (No Underdrain)	5,602
491090	Los Angeles	N Edinburgh Ave	Bioretention (No Underdrain)	1,918
491090	Los Angeles	N Flores St	Bioretention (No Underdrain)	2,289
491090	Los Angeles	N Harper Ave	Bioretention (No Underdrain)	4,671
491090	Los Angeles	N Hayworth Ave	Bioretention (No Underdrain)	1,278
491090	Los Angeles	N Kilkea Dr	Bioretention (No Underdrain)	4,040
491090	Los Angeles	N Kings Rd	Bioretention (No Underdrain)	2,930
491090	Los Angeles	N la Jolla Ave	Bioretention (No Underdrain)	4,673
491090	Los Angeles	N Laurel Ave	Bioretention (No Underdrain)	4,905
491090	Los Angeles	N Orlando Ave	Bioretention (No Underdrain)	549
491090	Los Angeles	N Robertson Blvd	Bioretention (No Underdrain)	136
491090	Los Angeles	N Sweetzer Ave	Bioretention (No Underdrain)	3,585
491090	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	2,539
491090	Los Angeles	Queens Rd	Bioretention (No Underdrain)	104

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491090	Los Angeles	Robertson Blvd	Bioretention (No Underdrain)	136
491090	Los Angeles	Romaine St	Bioretention (No Underdrain)	959
491090	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	2,575
491090	Los Angeles	S Flores St	Bioretention (No Underdrain)	589
491090	Los Angeles	S Hamel Rd	Bioretention (No Underdrain)	436
491090	Los Angeles	S Harper Ave	Bioretention (No Underdrain)	627
491090	Los Angeles	S Holt Ave	Bioretention (No Underdrain)	527
491090	Los Angeles	S Kings Rd	Bioretention (No Underdrain)	570
491090	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	372
491090	Los Angeles	S la Jolla Ave	Bioretention (No Underdrain)	706
491090	Los Angeles	S Le Doux Rd	Bioretention (No Underdrain)	96
491090	Los Angeles	S Orlando Ave	Bioretention (No Underdrain)	1,665
491090	Los Angeles	S Robertson Blvd	Bioretention (No Underdrain)	132
491090	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	940
491090	Los Angeles	S Sherbourne Dr	Bioretention (No Underdrain)	442
491090	Los Angeles	S Sweetzer Ave	Bioretention (No Underdrain)	624
491090	Los Angeles	S Willaman Dr	Bioretention (No Underdrain)	519
491090	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	79
491090	Los Angeles	Selma Ave	Bioretention (No Underdrain)	89
491090	Los Angeles	Viewmont Dr	Bioretention (No Underdrain)	27
491090	Los Angeles	W 1st St	Bioretention (No Underdrain)	1,924
491090	Los Angeles	W 3rd St	Bioretention (No Underdrain)	1,931
491090	Los Angeles	W 4th St	Bioretention (No Underdrain)	971
491090	Los Angeles	W Grand View Dr	Bioretention (No Underdrain)	58
491090	Los Angeles	Waring Ave	Bioretention (No Underdrain)	3,080
491090	Los Angeles	Willoughby Ave	Bioretention (No Underdrain)	1,938
491091	Los Angeles	(unknown)	Biofiltration (Underdrain)	266
491091	Los Angeles	Alden Dr	Biofiltration (Underdrain)	2,206
491091	Los Angeles	Appian Way	Biofiltration (Underdrain)	151
491091	Los Angeles	Arnaz Dr	Biofiltration (Underdrain)	316
491091	Los Angeles	Belfast Dr	Biofiltration (Underdrain)	201
491091	Los Angeles	Beverly Crest Dr	Biofiltration (Underdrain)	53
491091	Los Angeles	Beverly Pl	Biofiltration (Underdrain)	202
491091	Los Angeles	Beverlycrest Dr	Biofiltration (Underdrain)	53
491091	Los Angeles	Blue Jay Way	Biofiltration (Underdrain)	192
491091	Los Angeles	Bluebird Ave	Biofiltration (Underdrain)	82
491091	Los Angeles	Burton Way	Biofiltration (Underdrain)	55
491091	Los Angeles	Cerrocrest Dr	Biofiltration (Underdrain)	22
491091	Los Angeles	Cordell Dr	Biofiltration (Underdrain)	290
491091	Los Angeles	Cory Ave	Biofiltration (Underdrain)	214
491091	Los Angeles	Devlin Dr	Biofiltration (Underdrain)	202
491091	Los Angeles	Devlin Pl	Biofiltration (Underdrain)	19
491091	Los Angeles	Doheny Pl	Biofiltration (Underdrain)	112
491091	Los Angeles	Flicker Way	Biofiltration (Underdrain)	179
491091	Los Angeles	Gilcrest Dr	Biofiltration (Underdrain)	24
491091	Los Angeles	Gracie Allen Dr	Biofiltration (Underdrain)	92
491091	Los Angeles	Huntley Dr	Biofiltration (Underdrain)	0
491091	Los Angeles	Londonderry Pl	Biofiltration (Underdrain)	48
491091	Los Angeles	Magnetic Ter	Biofiltration (Underdrain)	1
491091	Los Angeles	Marcheeta Pl	Biofiltration (Underdrain)	123
491091	Los Angeles	Miller Dr	Biofiltration (Underdrain)	40
491091	Los Angeles	Miller Pl	Biofiltration (Underdrain)	18
491091	Los Angeles	Mockingbird Pl	Biofiltration (Underdrain)	51
491091	Los Angeles	N Almont Dr	Biofiltration (Underdrain)	430
491091	Los Angeles	N Blue Jay Way	Biofiltration (Underdrain)	192

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491091	Los Angeles	N Clark Dr	Biofiltration (Underdrain)	430
491091	Los Angeles	N Clark St	Biofiltration (Underdrain)	28
491091	Los Angeles	N Doheny Dr	Biofiltration (Underdrain)	2,410
491091	Los Angeles	N la Peer Dr	Biofiltration (Underdrain)	429
491091	Los Angeles	N Marcheeta Pl	Biofiltration (Underdrain)	123
491091	Los Angeles	N Oriole Dr	Biofiltration (Underdrain)	1
491091	Los Angeles	N Rising Glen Rd	Biofiltration (Underdrain)	587
491091	Los Angeles	N Robertson Blvd	Biofiltration (Underdrain)	419
491091	Los Angeles	N San Vicente Blvd	Biofiltration (Underdrain)	383
491091	Los Angeles	N Sierra Alta Way	Biofiltration (Underdrain)	5
491091	Los Angeles	N Sunset Plaza Dr	Biofiltration (Underdrain)	709
491091	Los Angeles	N Swall Dr	Biofiltration (Underdrain)	429
491091	Los Angeles	N Wetherly Dr	Biofiltration (Underdrain)	768
491091	Los Angeles	Nightingale Dr	Biofiltration (Underdrain)	91
491091	Los Angeles	Oriole Dr	Biofiltration (Underdrain)	268
491091	Los Angeles	Pine Tree Pl	Biofiltration (Underdrain)	4
491091	Los Angeles	Pinto Pl	Biofiltration (Underdrain)	155
491091	Los Angeles	Rising Glen Pl	Biofiltration (Underdrain)	54
491091	Los Angeles	Rising Glen Rd	Biofiltration (Underdrain)	603
491091	Los Angeles	Robin Dr	Biofiltration (Underdrain)	232
491091	Los Angeles	S Almont Dr	Biofiltration (Underdrain)	954
491091	Los Angeles	S Clark Dr	Biofiltration (Underdrain)	942
491091	Los Angeles	S Doheny Dr	Biofiltration (Underdrain)	962
491091	Los Angeles	S George Burns Rd	Biofiltration (Underdrain)	385
491091	Los Angeles	S Hamel Rd	Biofiltration (Underdrain)	311
491091	Los Angeles	S Holt Ave	Biofiltration (Underdrain)	297
491091	Los Angeles	S la Peer Dr	Biofiltration (Underdrain)	950
491091	Los Angeles	S Robertson Blvd	Biofiltration (Underdrain)	937
491091	Los Angeles	S San Vicente Blvd	Biofiltration (Underdrain)	3,038
491091	Los Angeles	S Sherbourne Dr	Biofiltration (Underdrain)	348
491091	Los Angeles	S Swall Dr	Biofiltration (Underdrain)	946
491091	Los Angeles	S Wetherly Dr	Biofiltration (Underdrain)	957
491091	Los Angeles	S Willaman Dr	Biofiltration (Underdrain)	307
491091	Los Angeles	Schuyler Rd	Biofiltration (Underdrain)	216
491091	Los Angeles	Sherwood Dr	Biofiltration (Underdrain)	51
491091	Los Angeles	Shoreham Dr	Biofiltration (Underdrain)	734
491091	Los Angeles	Sierra Alta Way	Biofiltration (Underdrain)	140
491091	Los Angeles	Sierra Mar Dr	Biofiltration (Underdrain)	228
491091	Los Angeles	Sierra Mar Pl	Biofiltration (Underdrain)	18
491091	Los Angeles	St Ives Dr	Biofiltration (Underdrain)	53
491091	Los Angeles	Sunset Hills Rd	Biofiltration (Underdrain)	187
491091	Los Angeles	Sunset Plaza Dr	Biofiltration (Underdrain)	823
491091	Los Angeles	Sunset Vale Ave	Biofiltration (Underdrain)	94
491091	Los Angeles	Swallow Dr	Biofiltration (Underdrain)	115
491091	Los Angeles	Tanager Way	Biofiltration (Underdrain)	26
491091	Los Angeles	Thrasher Ave	Biofiltration (Underdrain)	268
491091	Los Angeles	Vireo Dr	Biofiltration (Underdrain)	112
491091	Los Angeles	W 3rd St	Biofiltration (Underdrain)	3,680
491091	Los Angeles	W Devlin Pl	Biofiltration (Underdrain)	19
491091	Los Angeles	W Flicker Way	Biofiltration (Underdrain)	197
491091	Los Angeles	W Nightingale Dr	Biofiltration (Underdrain)	91
491091	Los Angeles	W Pinto Pl	Biofiltration (Underdrain)	155
491091	Los Angeles	W Robin Dr	Biofiltration (Underdrain)	232
491091	Los Angeles	W St Ives Dr	Biofiltration (Underdrain)	10
491091	Los Angeles	W Sunset Plaza Dr	Biofiltration (Underdrain)	72

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491091	Los Angeles	W Swallow Dr	Biofiltration (Underdrain)	115
491091	Los Angeles	W Thrasher Ave	Biofiltration (Underdrain)	85
491091	Los Angeles	W Trasher Ave	Biofiltration (Underdrain)	162
491091	Los Angeles	W Warbler Pl	Biofiltration (Underdrain)	96
491091	Los Angeles	W Warbler Way	Biofiltration (Underdrain)	81
491091	Los Angeles	Warbler Pl	Biofiltration (Underdrain)	96
491091	Los Angeles	Warbler Way	Biofiltration (Underdrain)	81
491092	Los Angeles	(unknown)	Bioretention (No Underdrain)	528
491092	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	2,000
491092	Los Angeles	Beverly Pl	Bioretention (No Underdrain)	426
491092	Los Angeles	Blackburn Ave	Bioretention (No Underdrain)	871
491092	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	718
491092	Los Angeles	Melrose Pl	Bioretention (No Underdrain)	1,011
491092	Los Angeles	N Alfred St	Bioretention (No Underdrain)	3,565
491092	Los Angeles	N Croft Ave	Bioretention (No Underdrain)	4,311
491092	Los Angeles	N Kings Rd	Bioretention (No Underdrain)	8
491092	Los Angeles	N la Cienega Blvd	Bioretention (No Underdrain)	3,930
491092	Los Angeles	N Orlando Ave	Bioretention (No Underdrain)	4,062
491092	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	1,105
491092	Los Angeles	Romaine St	Bioretention (No Underdrain)	1,190
491092	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	1,221
491092	Los Angeles	S Croft Ave	Bioretention (No Underdrain)	508
491092	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	1,090
491092	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	191
491092	Los Angeles	Sherwood Dr	Bioretention (No Underdrain)	108
491092	Los Angeles	W 1st St	Bioretention (No Underdrain)	233
491092	Los Angeles	W 3rd St	Bioretention (No Underdrain)	1,057
491092	Los Angeles	W 4th St	Bioretention (No Underdrain)	837
491092	Los Angeles	Waring Ave	Bioretention (No Underdrain)	1,341
491092	Los Angeles	Westbourne Dr	Bioretention (No Underdrain)	1
491092	Los Angeles	Westmount Dr	Bioretention (No Underdrain)	209
491092	Los Angeles	Willoughby Ave	Bioretention (No Underdrain)	1,199
491093	Los Angeles	(unknown)	Bioretention (No Underdrain)	1,257
491093	Los Angeles	Alvira St	Bioretention (No Underdrain)	131
491093	Los Angeles	Apple St	Bioretention (No Underdrain)	219
491093	Los Angeles	Burchard Ave	Bioretention (No Underdrain)	420
491093	Los Angeles	Cadillac Ave	Bioretention (No Underdrain)	1,264
491093	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	152
491093	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	129
491093	Los Angeles	Cologne St	Bioretention (No Underdrain)	2,426
491093	Los Angeles	Comey Ave	Bioretention (No Underdrain)	983
491093	Los Angeles	Cullen St	Bioretention (No Underdrain)	65
491093	Los Angeles	Dauphin Ave	Bioretention (No Underdrain)	1,029
491093	Los Angeles	Dauphin St	Bioretention (No Underdrain)	1,029
491093	Los Angeles	David Ave	Bioretention (No Underdrain)	511
491093	Los Angeles	Ernest Ave	Bioretention (No Underdrain)	702
491093	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	138
491093	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	843
491093	Los Angeles	S Genesee Ave	Bioretention (No Underdrain)	432
491093	Los Angeles	S Glennie Ln	Bioretention (No Underdrain)	148
491093	Los Angeles	S la Cienega Blvd	Bioretention (No Underdrain)	907
491093	Los Angeles	S Marvin Ave	Bioretention (No Underdrain)	201
491093	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	1,844
491093	Los Angeles	Thurman Ave	Bioretention (No Underdrain)	178
491093	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	1,621

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491094	Los Angeles	(unknown)	Bioretention (No Underdrain)	617
491094	Los Angeles	Airdrome St	Bioretention (No Underdrain)	2,369
491094	Los Angeles	Alandale Ave	Bioretention (No Underdrain)	47
491094	Los Angeles	Alcott St	Bioretention (No Underdrain)	765
491094	Los Angeles	Alvira St	Bioretention (No Underdrain)	5,554
491094	Los Angeles	Barrows Dr	Bioretention (No Underdrain)	996
491094	Los Angeles	Capistrano Way	Bioretention (No Underdrain)	255
491094	Los Angeles	Carmel Way	Bioretention (No Underdrain)	591
491094	Los Angeles	Carrillo Dr	Bioretention (No Underdrain)	937
491094	Los Angeles	Cashio St	Bioretention (No Underdrain)	969
491094	Los Angeles	Commodore Sloat Dr	Bioretention (No Underdrain)	1,959
491094	Los Angeles	del Valle Dr	Bioretention (No Underdrain)	1,481
491094	Los Angeles	Foster Dr	Bioretention (No Underdrain)	1,160
491094	Los Angeles	Guthrie Ave	Bioretention (No Underdrain)	1,629
491094	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	917
491094	Los Angeles	Hayes Dr	Bioretention (No Underdrain)	433
491094	Los Angeles	Hi Point St	Bioretention (No Underdrain)	5,384
491094	Los Angeles	Horner St	Bioretention (No Underdrain)	903
491094	Los Angeles	Lindenhurst Ave	Bioretention (No Underdrain)	928
491094	Los Angeles	Maryland Dr	Bioretention (No Underdrain)	894
491094	Los Angeles	Masselin Ave	Bioretention (No Underdrain)	912
491094	Los Angeles	McCarthy Vis	Bioretention (No Underdrain)	100
491094	Los Angeles	McCarthy Vis	Bioretention (No Underdrain)	2,008
491094	Los Angeles	Moore Dr	Bioretention (No Underdrain)	555
491094	Los Angeles	N Wilshire Blvd	Bioretention (No Underdrain)	288
491094	Los Angeles	Olympic Pl	Bioretention (No Underdrain)	261
491094	Los Angeles	Orange Ave	Bioretention (No Underdrain)	90
491094	Los Angeles	Orange St	Bioretention (No Underdrain)	93
491094	Los Angeles	Packard St	Bioretention (No Underdrain)	3,079
491094	Los Angeles	Pickford Pl	Bioretention (No Underdrain)	623
491094	Los Angeles	Pickford St	Bioretention (No Underdrain)	2,602
491094	Los Angeles	Ramona Ct	Bioretention (No Underdrain)	447
491094	Los Angeles	Roland Walk	Bioretention (No Underdrain)	56
491094	Los Angeles	S Alvira St	Bioretention (No Underdrain)	83
491094	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	883
491094	Los Angeles	S Crescent Heights Blvd	Bioretention (No Underdrain)	9,058
491094	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	1,159
491094	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	20
491094	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	9,252
491094	Los Angeles	S Genesee Ave	Bioretention (No Underdrain)	5,161
491094	Los Angeles	S Hayworth Ave	Bioretention (No Underdrain)	6,427
491094	Los Angeles	S la Jolla Ave	Bioretention (No Underdrain)	2,359
491094	Los Angeles	S Ogden Dr	Bioretention (No Underdrain)	5,106
491094	Los Angeles	S Orange Grove Ave	Bioretention (No Underdrain)	5,421
491094	Los Angeles	S Orlando Ave	Bioretention (No Underdrain)	485
491094	Los Angeles	S Point View St	Bioretention (No Underdrain)	6,375
491094	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	931
491094	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	4,377
491094	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	752
491094	Los Angeles	S Stanley Ave	Bioretention (No Underdrain)	712
491094	Los Angeles	San Diego Way	Bioretention (No Underdrain)	720
491094	Los Angeles	San Gabriel Way	Bioretention (No Underdrain)	358
491094	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	5,340
491094	Los Angeles	Saturn St	Bioretention (No Underdrain)	3,046
491094	Los Angeles	Sawyer St	Bioretention (No Underdrain)	2,458

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491094	Los Angeles	Stearns Dr	Bioretention (No Underdrain)	7,629
491094	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	5,139
491094	Los Angeles	W 18th St	Bioretention (No Underdrain)	3,508
491094	Los Angeles	W 4th St	Bioretention (No Underdrain)	16
491094	Los Angeles	W 5th St	Bioretention (No Underdrain)	864
491094	Los Angeles	W 6th St	Bioretention (No Underdrain)	2,493
491094	Los Angeles	W 8th St	Bioretention (No Underdrain)	1,959
491094	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	3,471
491094	Los Angeles	W Orange St	Bioretention (No Underdrain)	2
491094	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	2,506
491094	Los Angeles	W San Vicente Blvd	Bioretention (No Underdrain)	193
491094	Los Angeles	W Wilshire Blvd	Bioretention (No Underdrain)	3,173
491094	Los Angeles	Warner Dr	Bioretention (No Underdrain)	2,383
491094	Los Angeles	Whitworth Dr	Bioretention (No Underdrain)	3,658
491094	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	3,475
491095	Los Angeles	Airdrome St	Bioretention (No Underdrain)	457
491095	Los Angeles	Alandale Ave	Bioretention (No Underdrain)	1,224
491095	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	2,717
491095	Los Angeles	Edgewood Pl	Bioretention (No Underdrain)	1,250
491095	Los Angeles	Ellsmere Ave	Bioretention (No Underdrain)	62
491095	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	5,115
491095	Los Angeles	Masselin Ave	Bioretention (No Underdrain)	5,059
491095	Los Angeles	Packard St	Bioretention (No Underdrain)	1,524
491095	Los Angeles	Pickford St	Bioretention (No Underdrain)	175
491095	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	3,104
491095	Los Angeles	S Carmona Ave	Bioretention (No Underdrain)	735
491095	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	6,822
491095	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	3,292
491095	Los Angeles	S Marvin Ave	Bioretention (No Underdrain)	754
491095	Los Angeles	S Masselin Ave	Bioretention (No Underdrain)	478
491095	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	4,353
491095	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	2,589
491095	Los Angeles	S Sierra Bonita Ave	Bioretention (No Underdrain)	6,040
491095	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	2,261
491095	Los Angeles	S Stanley Ave	Bioretention (No Underdrain)	3,297
491095	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	4,963
491095	Los Angeles	Saturn St	Bioretention (No Underdrain)	708
491095	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	366
491095	Los Angeles	W 8th St	Bioretention (No Underdrain)	2,137
491095	Los Angeles	W 9th St	Bioretention (No Underdrain)	950
491095	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	3,257
491095	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	1,620
491095	Los Angeles	W San Vicente Blvd	Bioretention (No Underdrain)	2,053
491095	Los Angeles	W Wilshire Blvd	Bioretention (No Underdrain)	643
491095	Los Angeles	Whitworth Dr	Bioretention (No Underdrain)	839
491095	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	2,081
491096	Los Angeles	(unknown)	Bioretention (No Underdrain)	154
491096	Los Angeles	Airdrome St	Bioretention (No Underdrain)	1,819
491096	Los Angeles	Clyde Ave	Bioretention (No Underdrain)	923
491096	Los Angeles	Ellsmere Ave	Bioretention (No Underdrain)	2,375
491096	Los Angeles	Packard St	Bioretention (No Underdrain)	1,041
491096	Los Angeles	Pickford St	Bioretention (No Underdrain)	1,630
491096	Los Angeles	S Curson Ave	Bioretention (No Underdrain)	889
491096	Los Angeles	S Fairfax Ave	Bioretention (No Underdrain)	92
491096	Los Angeles	S Genesee Ave	Bioretention (No Underdrain)	3,357

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491096	Los Angeles	S Ogden Dr	Bioretention (No Underdrain)	3,124
491096	Los Angeles	S Orange Grove Ave	Bioretention (No Underdrain)	2,848
491096	Los Angeles	S Spaulding Ave	Bioretention (No Underdrain)	4,237
491096	Los Angeles	S Stanley Ave	Bioretention (No Underdrain)	3,283
491096	Los Angeles	Saturn St	Bioretention (No Underdrain)	1,650
491096	Los Angeles	Thurman Ave	Bioretention (No Underdrain)	993
491096	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	2,564
491096	Los Angeles	W 18th St	Bioretention (No Underdrain)	110
491096	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	1,518
491097	Los Angeles	(unknown)	Bioretention (No Underdrain)	211
491097	Los Angeles	Airdrome St	Bioretention (No Underdrain)	30
491097	Los Angeles	Carmona Ave	Bioretention (No Underdrain)	2,638
491097	Los Angeles	Cochran Pl	Bioretention (No Underdrain)	313
491097	Los Angeles	Cologne St	Bioretention (No Underdrain)	1,156
491097	Los Angeles	Dunsmuir Ave	Bioretention (No Underdrain)	284
491097	Los Angeles	Hauser Blvd	Bioretention (No Underdrain)	1,922
491097	Los Angeles	Pickford St	Bioretention (No Underdrain)	881
491097	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	2,023
491097	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	376
491097	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	987
491097	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	1,696
491097	Los Angeles	S Sierra Bonita Ave	Bioretention (No Underdrain)	253
491097	Los Angeles	Saturn St	Bioretention (No Underdrain)	1,289
491097	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	4,027
491097	Los Angeles	W Pickford St	Bioretention (No Underdrain)	342
491097	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	6
491098	Los Angeles	Dockweiler Pl	Bioretention (No Underdrain)	556
491098	Los Angeles	Edgewood Pl	Bioretention (No Underdrain)	383
491098	Los Angeles	Meadowbrook Ave	Bioretention (No Underdrain)	1,889
491098	Los Angeles	Packard St	Bioretention (No Underdrain)	1,984
491098	Los Angeles	S Burnside Ave	Bioretention (No Underdrain)	1,902
491098	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	3,239
491098	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	4,694
491098	Los Angeles	S Dunsmuir Ave	Bioretention (No Underdrain)	2,272
491098	Los Angeles	S Ridgeley Dr	Bioretention (No Underdrain)	639
491098	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	1,618
491098	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	3,233
491098	Los Angeles	Saturn St	Bioretention (No Underdrain)	360
491098	Los Angeles	W 12th St	Bioretention (No Underdrain)	626
491098	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	1,523
491099	Los Angeles	(unknown)	Bioretention (No Underdrain)	25
491099	Los Angeles	10th Ave	Bioretention (No Underdrain)	668
491099	Los Angeles	12th Ave	Bioretention (No Underdrain)	406
491099	Los Angeles	4th Ave	Bioretention (No Underdrain)	771
491099	Los Angeles	5th Ave	Bioretention (No Underdrain)	802
491099	Los Angeles	6th Ave	Bioretention (No Underdrain)	796
491099	Los Angeles	7th Ave	Bioretention (No Underdrain)	795
491099	Los Angeles	8th Ave	Bioretention (No Underdrain)	769
491099	Los Angeles	Alsace Ave	Bioretention (No Underdrain)	908
491099	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	1,675
491099	Los Angeles	Claudina Ave	Bioretention (No Underdrain)	123
491099	Los Angeles	Cologne St	Bioretention (No Underdrain)	70
491099	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	1,277
491099	Los Angeles	Hillcrest Dr	Bioretention (No Underdrain)	130
491099	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	1,762

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491099	Los Angeles	la Fayette Rd	Bioretention (No Underdrain)	108
491099	Los Angeles	Mascot St	Bioretention (No Underdrain)	1,418
491099	Los Angeles	Pickford St	Bioretention (No Underdrain)	4,889
491099	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	552
491099	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	708
491099	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	180
491099	Los Angeles	S Harcourt Ave	Bioretention (No Underdrain)	260
491099	Los Angeles	S Highland Ave	Bioretention (No Underdrain)	1,947
491099	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	1,762
491099	Los Angeles	S Longwood Ave	Bioretention (No Underdrain)	1,968
491099	Los Angeles	S Mansfield Ave	Bioretention (No Underdrain)	1,753
491099	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	340
491099	Los Angeles	S Orange Dr	Bioretention (No Underdrain)	1,573
491099	Los Angeles	S Palm Grove Ave	Bioretention (No Underdrain)	120
491099	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	977
491099	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	1,978
491099	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	1,472
491099	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	1,194
491099	Los Angeles	Saint Elmo Dr	Bioretention (No Underdrain)	3,179
491099	Los Angeles	Saturn St	Bioretention (No Underdrain)	2,203
491099	Los Angeles	St Charles Pl	Bioretention (No Underdrain)	531
491099	Los Angeles	Vineyard Ave	Bioretention (No Underdrain)	2,026
491099	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	1,487
491099	Los Angeles	W 17th St	Bioretention (No Underdrain)	1,376
491099	Los Angeles	W 18th St	Bioretention (No Underdrain)	2,240
491099	Los Angeles	W 21st St	Bioretention (No Underdrain)	1,817
491099	Los Angeles	W Cologne St	Bioretention (No Underdrain)	249
491099	Los Angeles	W St Charles Pl	Bioretention (No Underdrain)	3
491099	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	7,290
491099	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	1,317
491099	Los Angeles	West Blvd	Bioretention (No Underdrain)	2,076
491100	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	852
491100	Los Angeles	Meadowbrook Ave	Bioretention (No Underdrain)	1,121
491100	Los Angeles	Packard St	Bioretention (No Underdrain)	728
491100	Los Angeles	S Cloverdale Ave	Bioretention (No Underdrain)	1,268
491100	Los Angeles	S Cochran Ave	Bioretention (No Underdrain)	87
491100	Los Angeles	S Highland Ave	Bioretention (No Underdrain)	543
491100	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	852
491100	Los Angeles	S Longwood Ave	Bioretention (No Underdrain)	118
491100	Los Angeles	S Mansfield Ave	Bioretention (No Underdrain)	737
491100	Los Angeles	S Orange Dr	Bioretention (No Underdrain)	927
491100	Los Angeles	S Redondo Blvd	Bioretention (No Underdrain)	2,555
491100	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	549
491100	Los Angeles	S Sycamore Ave	Bioretention (No Underdrain)	2,255
491100	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	728
491100	Los Angeles	St Charles Pl	Bioretention (No Underdrain)	1,182
491100	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	5,594
491100	Los Angeles	W 17th St	Bioretention (No Underdrain)	833
491100	Los Angeles	W Cologne St	Bioretention (No Underdrain)	178
491100	Los Angeles	W North Venice Blvd	Bioretention (No Underdrain)	1,922
491100	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	1,010
491100	Los Angeles	W South Venice Blvd	Bioretention (No Underdrain)	1,474
491100	Los Angeles	W St Charles Pl	Bioretention (No Underdrain)	70
491101	Los Angeles	(unknown)	Bioretention (No Underdrain)	775
491101	Los Angeles	Abbey Pl	Bioretention (No Underdrain)	266

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491101	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	1,607
491101	Los Angeles	Clinton St	Bioretention (No Underdrain)	1,260
491101	Los Angeles	Country Club Dr	Bioretention (No Underdrain)	1,003
491101	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	3,399
491101	Los Angeles	Dockweiler St	Bioretention (No Underdrain)	1,563
491101	Los Angeles	Edgewood Pl	Bioretention (No Underdrain)	1,067
491101	Los Angeles	Francis Ave	Bioretention (No Underdrain)	1,078
491101	Los Angeles	Fremont Pl	Bioretention (No Underdrain)	101
491101	Los Angeles	Fremont Pl W	Bioretention (No Underdrain)	100
491101	Los Angeles	Keniston Ave	Bioretention (No Underdrain)	2,197
491101	Los Angeles	la Brea Ave	Bioretention (No Underdrain)	130
491101	Los Angeles	Le Claire Pl	Bioretention (No Underdrain)	538
491101	Los Angeles	Lorraine Blvd	Bioretention (No Underdrain)	5,109
491101	Los Angeles	N Beachwood Dr	Bioretention (No Underdrain)	3,546
491101	Los Angeles	N Gower St	Bioretention (No Underdrain)	3,443
491101	Los Angeles	N Irving Blvd	Bioretention (No Underdrain)	2,090
491101	Los Angeles	N Larchmont Blvd	Bioretention (No Underdrain)	3,888
491101	Los Angeles	N Plymouth Blvd	Bioretention (No Underdrain)	3,637
491101	Los Angeles	N Windsor Blvd	Bioretention (No Underdrain)	3,684
491101	Los Angeles	Queen Anne Pl	Bioretention (No Underdrain)	1,120
491101	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	1,543
491101	Los Angeles	S Arden Blvd	Bioretention (No Underdrain)	620
491101	Los Angeles	S Beachwood Dr	Bioretention (No Underdrain)	1,019
491101	Los Angeles	S Highland Ave	Bioretention (No Underdrain)	1,717
491101	Los Angeles	S Hudson Ave	Bioretention (No Underdrain)	2,324
491101	Los Angeles	S Irving Blvd	Bioretention (No Underdrain)	3,809
491101	Los Angeles	S la Brea Ave	Bioretention (No Underdrain)	130
491101	Los Angeles	S Larchmont Blvd	Bioretention (No Underdrain)	92
491101	Los Angeles	S Longwood Ave	Bioretention (No Underdrain)	2,086
491101	Los Angeles	S Lorraine Blvd	Bioretention (No Underdrain)	1,320
491101	Los Angeles	S Lucerne Blvd	Bioretention (No Underdrain)	4,693
491101	Los Angeles	S Muirfield Rd	Bioretention (No Underdrain)	482
491101	Los Angeles	S Mullen Ave	Bioretention (No Underdrain)	594
491101	Los Angeles	S Plymouth Blvd	Bioretention (No Underdrain)	7,157
491101	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	2,794
491101	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	1,526
491101	Los Angeles	S Tremaine Ave	Bioretention (No Underdrain)	2,327
491101	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	1,897
491101	Los Angeles	S Windsor Blvd	Bioretention (No Underdrain)	7,396
491101	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	3,472
491101	Los Angeles	W 10th St	Bioretention (No Underdrain)	1,547
491101	Los Angeles	W 11th St	Bioretention (No Underdrain)	8
491101	Los Angeles	W 12th St	Bioretention (No Underdrain)	2,648
491101	Los Angeles	W 1st St	Bioretention (No Underdrain)	1,434
491101	Los Angeles	W 2nd St	Bioretention (No Underdrain)	1,382
491101	Los Angeles	W 3rd St	Bioretention (No Underdrain)	1,371
491101	Los Angeles	W 4th St	Bioretention (No Underdrain)	1,360
491101	Los Angeles	W 5th St	Bioretention (No Underdrain)	1,581
491101	Los Angeles	W 6th St	Bioretention (No Underdrain)	2,022
491101	Los Angeles	W 8th St	Bioretention (No Underdrain)	1,650
491101	Los Angeles	W 9th St	Bioretention (No Underdrain)	1,155
491101	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	2,536
491101	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	2,385
491101	Los Angeles	West Blvd	Bioretention (No Underdrain)	1,423
491101	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	2,733

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491102	Los Angeles	(unknown)	Biofiltration (Underdrain)	483
491102	Los Angeles	Beverly Blvd	Biofiltration (Underdrain)	2,586
491102	Los Angeles	Carling Way	Biofiltration (Underdrain)	1,091
491102	Los Angeles	Dockweiler St	Biofiltration (Underdrain)	579
491102	Los Angeles	Edgewood Pl	Biofiltration (Underdrain)	4,132
491102	Los Angeles	Hudson Pl	Biofiltration (Underdrain)	799
491102	Los Angeles	Keniston Ave	Biofiltration (Underdrain)	2,702
491102	Los Angeles	la Brea Ave	Biofiltration (Underdrain)	9,694
491102	Los Angeles	Longwood Pl	Biofiltration (Underdrain)	546
491102	Los Angeles	Meadowbrook Ave	Biofiltration (Underdrain)	1,542
491102	Los Angeles	N Arden Blvd	Biofiltration (Underdrain)	2,151
491102	Los Angeles	N Citrus Ave	Biofiltration (Underdrain)	877
491102	Los Angeles	N Highland Ave	Biofiltration (Underdrain)	1,810
491102	Los Angeles	N Hudson Ave	Biofiltration (Underdrain)	754
491102	Los Angeles	N June St	Biofiltration (Underdrain)	834
491102	Los Angeles	N la Brea Ave	Biofiltration (Underdrain)	871
491102	Los Angeles	N Las Palmas Ave	Biofiltration (Underdrain)	910
491102	Los Angeles	N Lucerne Blvd	Biofiltration (Underdrain)	2,762
491102	Los Angeles	N Mansfield Ave	Biofiltration (Underdrain)	842
491102	Los Angeles	N Mc Cadden Pl	Biofiltration (Underdrain)	886
491102	Los Angeles	N McCadden Pl	Biofiltration (Underdrain)	886
491102	Los Angeles	N Orange Dr	Biofiltration (Underdrain)	870
491102	Los Angeles	N Rossmore Ave	Biofiltration (Underdrain)	1,495
491102	Los Angeles	N Sycamore Ave	Biofiltration (Underdrain)	865
491102	Los Angeles	Packard St	Biofiltration (Underdrain)	52
491102	Los Angeles	Rosewood Ave	Biofiltration (Underdrain)	573
491102	Los Angeles	S Arden Blvd	Biofiltration (Underdrain)	3,434
491102	Los Angeles	S Beachwood Dr	Biofiltration (Underdrain)	124
491102	Los Angeles	S Citrus Ave	Biofiltration (Underdrain)	8,661
491102	Los Angeles	S Cloverdale Ave	Biofiltration (Underdrain)	4,542
491102	Los Angeles	S Cochran Ave	Biofiltration (Underdrain)	4,413
491102	Los Angeles	S Detroit St	Biofiltration (Underdrain)	4,329
491102	Los Angeles	S Dunsmuir Ave	Biofiltration (Underdrain)	640
491102	Los Angeles	S Highland Ave	Biofiltration (Underdrain)	12,163
491102	Los Angeles	S Hudson Ave	Biofiltration (Underdrain)	7,207
491102	Los Angeles	S June St	Biofiltration (Underdrain)	4,151
491102	Los Angeles	S la Brea Ave	Biofiltration (Underdrain)	9,935
491102	Los Angeles	S Larchmont Blvd	Biofiltration (Underdrain)	2,876
491102	Los Angeles	S Las Palmas Ave	Biofiltration (Underdrain)	3,157
491102	Los Angeles	S Longwood Ave	Biofiltration (Underdrain)	2,950
491102	Los Angeles	S Lucerne Blvd	Biofiltration (Underdrain)	2,909
491102	Los Angeles	S Mansfield Ave	Biofiltration (Underdrain)	7,990
491102	Los Angeles	S Mc Cadden Pl	Biofiltration (Underdrain)	4,191
491102	Los Angeles	S McCadden Pl	Biofiltration (Underdrain)	4,191
491102	Los Angeles	S Muirfield Rd	Biofiltration (Underdrain)	6,234
491102	Los Angeles	S Mullen Ave	Biofiltration (Underdrain)	2,067
491102	Los Angeles	S Orange Dr	Biofiltration (Underdrain)	8,964
491102	Los Angeles	S Redondo Blvd	Biofiltration (Underdrain)	2,029
491102	Los Angeles	S Rimpau Blvd	Biofiltration (Underdrain)	5,345
491102	Los Angeles	S Rossmore Ave	Biofiltration (Underdrain)	4,054
491102	Los Angeles	S San Vicente Blvd	Biofiltration (Underdrain)	1,481
491102	Los Angeles	S Sycamore Ave	Biofiltration (Underdrain)	8,334
491102	Los Angeles	S Tremaine Ave	Biofiltration (Underdrain)	2,777
491102	Los Angeles	San Vicente Blvd	Biofiltration (Underdrain)	2,193
491102	Los Angeles	W 12th St	Biofiltration (Underdrain)	2,262

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491102	Los Angeles	W 1st St	Biofiltration (Underdrain)	4,218
491102	Los Angeles	W 2nd St	Biofiltration (Underdrain)	5,113
491102	Los Angeles	W 3rd St	Biofiltration (Underdrain)	6,312
491102	Los Angeles	W 4th St	Biofiltration (Underdrain)	7,432
491102	Los Angeles	W 5th St	Biofiltration (Underdrain)	1,826
491102	Los Angeles	W 6th St	Biofiltration (Underdrain)	7,009
491102	Los Angeles	W 8th St	Biofiltration (Underdrain)	6,110
491102	Los Angeles	W 9th St	Biofiltration (Underdrain)	6,181
491102	Los Angeles	W Edgewood Pl	Biofiltration (Underdrain)	100
491102	Los Angeles	W Olympic Blvd	Biofiltration (Underdrain)	5,699
491102	Los Angeles	W Pico Blvd	Biofiltration (Underdrain)	722
491102	Los Angeles	W Wilshire Blvd	Biofiltration (Underdrain)	1,370
491102	Los Angeles	West Blvd	Biofiltration (Underdrain)	39
491102	Los Angeles	Wilshire Blvd	Biofiltration (Underdrain)	6,002
491103	Los Angeles	(unknown)	Biofiltration (Underdrain)	148
491103	Los Angeles	Alcyona Dr	Biofiltration (Underdrain)	27
491103	Los Angeles	Arden Pl	Biofiltration (Underdrain)	257
491103	Los Angeles	Arrowhead Dr	Biofiltration (Underdrain)	920
491103	Los Angeles	Arrowhead Pl	Biofiltration (Underdrain)	125
491103	Los Angeles	Banner Ave	Biofiltration (Underdrain)	115
491103	Los Angeles	Barton Ave	Biofiltration (Underdrain)	1,263
491103	Los Angeles	Bella Vista Way	Biofiltration (Underdrain)	19
491103	Los Angeles	Beverly Blvd	Biofiltration (Underdrain)	92
491103	Los Angeles	Bryn Mawr Dr	Biofiltration (Underdrain)	71
491103	Los Angeles	Cahuenga Ter	Biofiltration (Underdrain)	29
491103	Los Angeles	Camerford Ave	Biofiltration (Underdrain)	1,318
491103	Los Angeles	Canyon Lake Dr	Biofiltration (Underdrain)	545
491103	Los Angeles	Cerritos Pl	Biofiltration (Underdrain)	128
491103	Los Angeles	Clinton St	Biofiltration (Underdrain)	2,638
491103	Los Angeles	Cole Ave	Biofiltration (Underdrain)	4,355
491103	Los Angeles	Cole Pl	Biofiltration (Underdrain)	1,196
491103	Los Angeles	Cosmo St	Biofiltration (Underdrain)	666
491103	Los Angeles	Crest Way	Biofiltration (Underdrain)	29
491103	Los Angeles	Creston Dr	Biofiltration (Underdrain)	333
491103	Los Angeles	de Longpre Ave	Biofiltration (Underdrain)	1,624
491103	Los Angeles	Deep Dell Pl	Biofiltration (Underdrain)	244
491103	Los Angeles	Dix St	Biofiltration (Underdrain)	524
491103	Los Angeles	Durand Dr	Biofiltration (Underdrain)	29
491103	Los Angeles	el Contento Dr	Biofiltration (Underdrain)	100
491103	Los Angeles	Eleanor Ave	Biofiltration (Underdrain)	1,940
491103	Los Angeles	Fink Pl	Biofiltration (Underdrain)	124
491103	Los Angeles	Fink St	Biofiltration (Underdrain)	130
491103	Los Angeles	Fountain Ave	Biofiltration (Underdrain)	2,540
491103	Los Angeles	Franklin Ave	Biofiltration (Underdrain)	967
491103	Los Angeles	Gilday Dr	Biofiltration (Underdrain)	25
491103	Los Angeles	Gordon St	Biofiltration (Underdrain)	2,348
491103	Los Angeles	Grace Ave	Biofiltration (Underdrain)	132
491103	Los Angeles	Gregory Ave	Biofiltration (Underdrain)	1,261
491103	Los Angeles	Holly Dr	Biofiltration (Underdrain)	2,105
491103	Los Angeles	Hollywood Blvd	Biofiltration (Underdrain)	845
491103	Los Angeles	Homewood Ave	Biofiltration (Underdrain)	1,267
491103	Los Angeles	Iris Dr	Biofiltration (Underdrain)	104
491103	Los Angeles	Iris Pl	Biofiltration (Underdrain)	144
491103	Los Angeles	Ivar Ave	Biofiltration (Underdrain)	2,614
491103	Los Angeles	Ivarene Ave	Biofiltration (Underdrain)	193

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491103	Los Angeles	la Mirada Ave	Biofiltration (Underdrain)	1,671
491103	Los Angeles	la Rocha Dr	Biofiltration (Underdrain)	66
491103	Los Angeles	Lake Hollywood Dr	Biofiltration (Underdrain)	3
491103	Los Angeles	Lakeridge Dr	Biofiltration (Underdrain)	1,045
491103	Los Angeles	Lakeridge Rd	Biofiltration (Underdrain)	45
491103	Los Angeles	Leland Way	Biofiltration (Underdrain)	422
491103	Los Angeles	Lexington Ave	Biofiltration (Underdrain)	3,173
491103	Los Angeles	Lillian Way	Biofiltration (Underdrain)	4,748
491103	Los Angeles	Lodi Pl	Biofiltration (Underdrain)	473
491103	Los Angeles	Melrose Ave	Biofiltration (Underdrain)	3,870
491103	Los Angeles	Mirror Lake Dr	Biofiltration (Underdrain)	203
491103	Los Angeles	Montlake Dr	Biofiltration (Underdrain)	93
491103	Los Angeles	Mound St	Biofiltration (Underdrain)	164
491103	Los Angeles	Mulholland Hwy	Biofiltration (Underdrain)	179
491103	Los Angeles	N Arden Blvd	Biofiltration (Underdrain)	1,659
491103	Los Angeles	N Beachwood Dr	Biofiltration (Underdrain)	1,134
491103	Los Angeles	N Bronson Ave	Biofiltration (Underdrain)	175
491103	Los Angeles	N Cahuenga Blvd	Biofiltration (Underdrain)	10,439
491103	Los Angeles	N el Centro Ave	Biofiltration (Underdrain)	2,983
491103	Los Angeles	N Gower St	Biofiltration (Underdrain)	2,253
491103	Los Angeles	N Grace Ave	Biofiltration (Underdrain)	132
491103	Los Angeles	N Hudson Ave	Biofiltration (Underdrain)	2,059
491103	Los Angeles	N Ivar Ave	Biofiltration (Underdrain)	177
491103	Los Angeles	N June St	Biofiltration (Underdrain)	653
491103	Los Angeles	N Larchmont Blvd	Biofiltration (Underdrain)	1,082
491103	Los Angeles	N Lucerne Blvd	Biofiltration (Underdrain)	1,048
491103	Los Angeles	N Plymouth Blvd	Biofiltration (Underdrain)	29
491103	Los Angeles	N Rossmore Ave	Biofiltration (Underdrain)	2,314
491103	Los Angeles	N San Marco Dr	Biofiltration (Underdrain)	14
491103	Los Angeles	N Whitley Ave	Biofiltration (Underdrain)	48
491103	Los Angeles	N Wilcox Ave	Biofiltration (Underdrain)	3,237
491103	Los Angeles	Oakwood Ave	Biofiltration (Underdrain)	27
491103	Los Angeles	Odin St	Biofiltration (Underdrain)	372
491103	Los Angeles	Pitcher Rd	Biofiltration (Underdrain)	2
491103	Los Angeles	Primrose Ave	Biofiltration (Underdrain)	659
491103	Los Angeles	Quebec Dr	Biofiltration (Underdrain)	57
491103	Los Angeles	Rinconia Dr	Biofiltration (Underdrain)	176
491103	Los Angeles	Romaine St	Biofiltration (Underdrain)	2,682
491103	Los Angeles	Rosewood Ave	Biofiltration (Underdrain)	1,625
491103	Los Angeles	San Marco Dr	Biofiltration (Underdrain)	187
491103	Los Angeles	Selma Ave	Biofiltration (Underdrain)	927
491103	Los Angeles	Seward St	Biofiltration (Underdrain)	3,452
491103	Los Angeles	Tahoe Dr	Biofiltration (Underdrain)	158
491103	Los Angeles	Tahoe Pl	Biofiltration (Underdrain)	62
491103	Los Angeles	Tamarind Ave	Biofiltration (Underdrain)	2,402
491103	Los Angeles	Vedanta Pl	Biofiltration (Underdrain)	55
491103	Los Angeles	Vedanta Ter	Biofiltration (Underdrain)	358
491103	Los Angeles	Vine St	Biofiltration (Underdrain)	3,087
491103	Los Angeles	W Bella Vista Way	Biofiltration (Underdrain)	17
491103	Los Angeles	W Cerritos Pl	Biofiltration (Underdrain)	128
491103	Los Angeles	W Franklin Ave	Biofiltration (Underdrain)	721
491103	Los Angeles	W Mulholland Hwy	Biofiltration (Underdrain)	57
491103	Los Angeles	W Yucca St	Biofiltration (Underdrain)	199
491103	Los Angeles	Waring Ave	Biofiltration (Underdrain)	3,031
491103	Los Angeles	Weidlake Dr	Biofiltration (Underdrain)	6

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491103	Los Angeles	Whitley Ave	Biofiltration (Underdrain)	48
491103	Los Angeles	Wilcox Ave	Biofiltration (Underdrain)	7,363
491103	Los Angeles	Wilcox Pl	Biofiltration (Underdrain)	536
491103	Los Angeles	Willetta Ave	Biofiltration (Underdrain)	243
491103	Los Angeles	Willoughby Ave	Biofiltration (Underdrain)	2,674
491103	Los Angeles	Wonder View Dr	Biofiltration (Underdrain)	117
491103	Los Angeles	Yucca St	Biofiltration (Underdrain)	1,100
491104	Los Angeles	(unknown)	Biofiltration (Underdrain)	105
491104	Los Angeles	(Unnamed Fire Road)	Biofiltration (Underdrain)	17
491104	Los Angeles	Afton Pl	Biofiltration (Underdrain)	1,320
491104	Los Angeles	Allview Ter W	Biofiltration (Underdrain)	23
491104	Los Angeles	Alto Oak Dr	Biofiltration (Underdrain)	28
491104	Los Angeles	Argosy Way	Biofiltration (Underdrain)	35
491104	Los Angeles	Argyle Ave	Biofiltration (Underdrain)	2,741
491104	Los Angeles	Banner Ave	Biofiltration (Underdrain)	545
491104	Los Angeles	Beachwood Ter	Biofiltration (Underdrain)	326
491104	Los Angeles	Belden Dr	Biofiltration (Underdrain)	317
491104	Los Angeles	Briarcliff Rd	Biofiltration (Underdrain)	28
491104	Los Angeles	Bronson Hill Dr	Biofiltration (Underdrain)	101
491104	Los Angeles	Canyon Cove	Biofiltration (Underdrain)	221
491104	Los Angeles	Canyon Dr	Biofiltration (Underdrain)	5,460
491104	Los Angeles	Canyon Heights Ln	Biofiltration (Underdrain)	53
491104	Los Angeles	Canyon Oak Dr	Biofiltration (Underdrain)	326
491104	Los Angeles	Carlos Ave	Biofiltration (Underdrain)	1,763
491104	Los Angeles	Carlton Way	Biofiltration (Underdrain)	1,659
491104	Los Angeles	Carmen Ave	Biofiltration (Underdrain)	758
491104	Los Angeles	Carmen Pl	Biofiltration (Underdrain)	179
491104	Los Angeles	Carolus Dr	Biofiltration (Underdrain)	63
491104	Los Angeles	Cazaux Dr	Biofiltration (Underdrain)	61
491104	Los Angeles	Cheremoya Ave	Biofiltration (Underdrain)	1,748
491104	Los Angeles	Chula Vista Way	Biofiltration (Underdrain)	735
491104	Los Angeles	Cocos Dr	Biofiltration (Underdrain)	168
491104	Los Angeles	Créston Dr	Biofiltration (Underdrain)	22
491104	Los Angeles	de Longpre Ave	Biofiltration (Underdrain)	2,030
491104	Los Angeles	Deronda Dr	Biofiltration (Underdrain)	142
491104	Los Angeles	Dix St	Biofiltration (Underdrain)	316
491104	Los Angeles	Dorcas Pl	Biofiltration (Underdrain)	36
491104	Los Angeles	Durand Dr	Biofiltration (Underdrain)	113
491104	Los Angeles	Flag St	Biofiltration (Underdrain)	8
491104	Los Angeles	Foothill Dr	Biofiltration (Underdrain)	826
491104	Los Angeles	Fountain Ave	Biofiltration (Underdrain)	2,315
491104	Los Angeles	Franklin Ave	Biofiltration (Underdrain)	2,622
491104	Los Angeles	Glen Airy St	Biofiltration (Underdrain)	100
491104	Los Angeles	Glen Alder St	Biofiltration (Underdrain)	222
491104	Los Angeles	Glen Green St	Biofiltration (Underdrain)	454
491104	Los Angeles	Glen Green Ter	Biofiltration (Underdrain)	51
491104	Los Angeles	Glen Holly St	Biofiltration (Underdrain)	213
491104	Los Angeles	Glen Oak St	Biofiltration (Underdrain)	238
491104	Los Angeles	Glen Tower St	Biofiltration (Underdrain)	144
491104	Los Angeles	Gordon St	Biofiltration (Underdrain)	808
491104	Los Angeles	Graciosa Dr	Biofiltration (Underdrain)	634
491104	Los Angeles	Green Oak Dr	Biofiltration (Underdrain)	294
491104	Los Angeles	Harold Way	Biofiltration (Underdrain)	530
491104	Los Angeles	Heather Dr	Biofiltration (Underdrain)	21
491104	Los Angeles	Helios Dr	Biofiltration (Underdrain)	7

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491104	Los Angeles	Holly Oak Dr	Biofiltration (Underdrain)	88
491104	Los Angeles	Hollyridge Dr	Biofiltration (Underdrain)	804
491104	Los Angeles	Hollyridge Loop	Biofiltration (Underdrain)	221
491104	Los Angeles	Hollywood Blvd	Biofiltration (Underdrain)	3,255
491104	Los Angeles	Homewood Ave	Biofiltration (Underdrain)	378
491104	Los Angeles	Ivar Ave	Biofiltration (Underdrain)	1,019
491104	Los Angeles	la Baig Ave	Biofiltration (Underdrain)	721
491104	Los Angeles	la Mirada Ave	Biofiltration (Underdrain)	973
491104	Los Angeles	Lambert Pl	Biofiltration (Underdrain)	12
491104	Los Angeles	Ledgewood Dr	Biofiltration (Underdrain)	345
491104	Los Angeles	Leland Way	Biofiltration (Underdrain)	889
491104	Los Angeles	Lexington Ave	Biofiltration (Underdrain)	1,436
491104	Los Angeles	Libby Way	Biofiltration (Underdrain)	27
491104	Los Angeles	Locksley Pl	Biofiltration (Underdrain)	65
491104	Los Angeles	Lodi Pl	Biofiltration (Underdrain)	724
491104	Los Angeles	Morningside Ct	Biofiltration (Underdrain)	526
491104	Los Angeles	Mount Beacon Ter	Biofiltration (Underdrain)	57
491104	Los Angeles	Mulholland Hwy	Biofiltration (Underdrain)	48
491104	Los Angeles	N Argyle Ave	Biofiltration (Underdrain)	171
491104	Los Angeles	N Beachwood Dr	Biofiltration (Underdrain)	7,292
491104	Los Angeles	N Bronson Ave	Biofiltration (Underdrain)	3,362
491104	Los Angeles	N el Centro Ave	Biofiltration (Underdrain)	3,170
491104	Los Angeles	N Gower St	Biofiltration (Underdrain)	5,466
491104	Los Angeles	N Hollyridge Dr	Biofiltration (Underdrain)	230
491104	Los Angeles	N Ivar Ave	Biofiltration (Underdrain)	24
491104	Los Angeles	N Van Ness Ave	Biofiltration (Underdrain)	1,511
491104	Los Angeles	N Wetona Dr	Biofiltration (Underdrain)	17
491104	Los Angeles	Park Oak Dr	Biofiltration (Underdrain)	618
491104	Los Angeles	Park Oak Pl	Biofiltration (Underdrain)	103
491104	Los Angeles	Pelham Pl	Biofiltration (Underdrain)	10
491104	Los Angeles	Primrose Ave	Biofiltration (Underdrain)	63
491104	Los Angeles	Rockcliff Dr	Biofiltration (Underdrain)	137
491104	Los Angeles	Rodgerton Dr	Biofiltration (Underdrain)	176
491104	Los Angeles	Rutherford Dr	Biofiltration (Underdrain)	30
491104	Los Angeles	S Yucca St	Biofiltration (Underdrain)	187
491104	Los Angeles	Scenic Ave	Biofiltration (Underdrain)	367
491104	Los Angeles	Selma Ave	Biofiltration (Underdrain)	2,347
491104	Los Angeles	Spring Oak Dr	Biofiltration (Underdrain)	229
491104	Los Angeles	Spring Oak Ter	Biofiltration (Underdrain)	86
491104	Los Angeles	Tamarind Ave	Biofiltration (Underdrain)	1,261
491104	Los Angeles	Temple Hill Dr	Biofiltration (Underdrain)	277
491104	Los Angeles	Tuxedo Ter	Biofiltration (Underdrain)	334
491104	Los Angeles	Valley Oak Dr	Biofiltration (Underdrain)	231
491104	Los Angeles	Vine St	Biofiltration (Underdrain)	4,467
491104	Los Angeles	Vista del Mar Ave	Biofiltration (Underdrain)	2,127
491104	Los Angeles	Vista del Mar St	Biofiltration (Underdrain)	2,127
491104	Los Angeles	W Glen Oak	Biofiltration (Underdrain)	173
491104	Los Angeles	Westshire Dr	Biofiltration (Underdrain)	201
491104	Los Angeles	Winans Dr	Biofiltration (Underdrain)	372
491104	Los Angeles	Woodhaven Dr	Biofiltration (Underdrain)	7
491104	Los Angeles	Woodshire Dr	Biofiltration (Underdrain)	15
491104	Los Angeles	Yucca St	Biofiltration (Underdrain)	1,230
491105	Los Angeles	(unknown)	Bioretention (No Underdrain)	604
491105	Los Angeles	12th Ave	Bioretention (No Underdrain)	943
491105	Los Angeles	2nd Ave	Bioretention (No Underdrain)	1,413

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491105	Los Angeles	3rd Ave	Bioretention (No Underdrain)	2,200
491105	Los Angeles	4th Ave	Bioretention (No Underdrain)	1,530
491105	Los Angeles	5th Ave	Bioretention (No Underdrain)	1,396
491105	Los Angeles	6th Ave	Bioretention (No Underdrain)	1,542
491105	Los Angeles	7th Ave	Bioretention (No Underdrain)	1,266
491105	Los Angeles	8th Ave	Bioretention (No Underdrain)	240
491105	Los Angeles	Arapahoe St	Bioretention (No Underdrain)	3,601
491105	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	3,117
491105	Los Angeles	Buckingham Rd	Bioretention (No Underdrain)	1,000
491105	Los Angeles	Cambridge St	Bioretention (No Underdrain)	2,650
491105	Los Angeles	Cimarron St	Bioretention (No Underdrain)	2,723
491105	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	1,590
491105	Los Angeles	Dewey Ave	Bioretention (No Underdrain)	993
491105	Los Angeles	E Gramercy Park	Bioretention (No Underdrain)	249
491105	Los Angeles	Elden Ave	Bioretention (No Underdrain)	118
491105	Los Angeles	Fedora St	Bioretention (No Underdrain)	1,344
491105	Los Angeles	Francis Ave	Bioretention (No Underdrain)	91
491105	Los Angeles	Gramercy Park	Bioretention (No Underdrain)	379
491105	Los Angeles	James M Wood Blvd	Bioretention (No Underdrain)	322
491105	Los Angeles	Johnnie Cochran Vis	Bioretention (No Underdrain)	824
491105	Los Angeles	la Fayette Rd	Bioretention (No Underdrain)	957
491105	Los Angeles	Leeward Ave	Bioretention (No Underdrain)	105
491105	Los Angeles	Lomita St	Bioretention (No Underdrain)	1,418
491105	Los Angeles	Magnolia Ave	Bioretention (No Underdrain)	814
491105	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	1,113
491105	Los Angeles	N Normandie Ave	Bioretention (No Underdrain)	230
491105	Los Angeles	N Rimpau Blvd	Bioretention (No Underdrain)	21
491105	Los Angeles	Nadeau Dr	Bioretention (No Underdrain)	24
491105	Los Angeles	Orchard Ave	Bioretention (No Underdrain)	777
491105	Los Angeles	Roosevelt Ave	Bioretention (No Underdrain)	896
491105	Los Angeles	S Alvarado St	Bioretention (No Underdrain)	1,384
491105	Los Angeles	S Ardmore Ave	Bioretention (No Underdrain)	2,306
491105	Los Angeles	S Berendo St	Bioretention (No Underdrain)	1,050
491105	Los Angeles	S Bonnie Brae St	Bioretention (No Underdrain)	48
491105	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	2,496
491105	Los Angeles	S Catalina St	Bioretention (No Underdrain)	1,350
491105	Los Angeles	S Coronado St	Bioretention (No Underdrain)	475
491105	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	3,734
491105	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	2,462
491105	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	2,546
491105	Los Angeles	S Hoover St	Bioretention (No Underdrain)	2,961
491105	Los Angeles	S Kenmore Ave	Bioretention (No Underdrain)	1,342
491105	Los Angeles	S Kingsley Dr	Bioretention (No Underdrain)	744
491105	Los Angeles	S Lake St	Bioretention (No Underdrain)	770
491105	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	1,649
491105	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	712
491105	Los Angeles	S Nadeau Dr	Bioretention (No Underdrain)	30
491105	Los Angeles	S New Hampshire Ave	Bioretention (No Underdrain)	1,206
491105	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	2,292
491105	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	506
491105	Los Angeles	S Oxford Ave	Bioretention (No Underdrain)	3,020
491105	Los Angeles	S Rampart Blvd	Bioretention (No Underdrain)	18
491105	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	149
491105	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	2,221
491105	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	2,053

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491105	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	1,044
491105	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	1,799
491105	Los Angeles	S Western Ave	Bioretention (No Underdrain)	3,195
491105	Los Angeles	S Westlake Ave	Bioretention (No Underdrain)	631
491105	Los Angeles	S Westmoreland Ave	Bioretention (No Underdrain)	1,188
491105	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	1,988
491105	Los Angeles	San Marino St	Bioretention (No Underdrain)	1,088
491105	Los Angeles	St Charles Pl	Bioretention (No Underdrain)	1,994
491105	Los Angeles	Sunset Pl	Bioretention (No Underdrain)	111
491105	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	15,285
491105	Los Angeles	Victoria Park Dr	Bioretention (No Underdrain)	34
491105	Los Angeles	Vineyard Ave	Bioretention (No Underdrain)	386
491105	Los Angeles	Virginia Rd	Bioretention (No Underdrain)	1,017
491105	Los Angeles	W 11th Pl	Bioretention (No Underdrain)	728
491105	Los Angeles	W 11th St	Bioretention (No Underdrain)	365
491105	Los Angeles	W 12th St	Bioretention (No Underdrain)	2,717
491105	Los Angeles	W 14th St	Bioretention (No Underdrain)	1,404
491105	Los Angeles	W 15th St	Bioretention (No Underdrain)	6,516
491105	Los Angeles	W 16th Pl	Bioretention (No Underdrain)	976
491105	Los Angeles	W 17th St	Bioretention (No Underdrain)	3,016
491105	Los Angeles	W 18th St	Bioretention (No Underdrain)	3,698
491105	Los Angeles	W 20th St	Bioretention (No Underdrain)	2,636
491105	Los Angeles	W 21st St	Bioretention (No Underdrain)	2,278
491105	Los Angeles	W 22nd St	Bioretention (No Underdrain)	21
491105	Los Angeles	W 23rd St	Bioretention (No Underdrain)	1,281
491105	Los Angeles	W 24th St	Bioretention (No Underdrain)	2,695
491105	Los Angeles	W 25th St	Bioretention (No Underdrain)	76
491105	Los Angeles	W 7th St	Bioretention (No Underdrain)	89
491105	Los Angeles	W 8th St	Bioretention (No Underdrain)	113
491105	Los Angeles	W 9th St	Bioretention (No Underdrain)	912
491105	Los Angeles	W Gramercy Park	Bioretention (No Underdrain)	379
491105	Los Angeles	W James M Wood Blvd	Bioretention (No Underdrain)	590
491105	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	313
491105	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	4,338
491105	Los Angeles	W St Charles Pl	Bioretention (No Underdrain)	1,090
491105	Los Angeles	W Washington Blvd	Bioretention (No Underdrain)	4,346
491105	Los Angeles	Wellington Rd	Bioretention (No Underdrain)	1,034
491105	Los Angeles	West Blvd	Bioretention (No Underdrain)	601
491105	Los Angeles	Westmoreland Blvd	Bioretention (No Underdrain)	1,321
491106	Los Angeles	(unknown)	Biofiltration (Underdrain)	3,244
491106	Los Angeles	Bellevue Ave	Biofiltration (Underdrain)	2,279
491106	Los Angeles	Beverly Blvd	Biofiltration (Underdrain)	5,075
491106	Los Angeles	Clinton St	Biofiltration (Underdrain)	1,101
491106	Los Angeles	Coronado Ter	Biofiltration (Underdrain)	1,063
491106	Los Angeles	Council St	Biofiltration (Underdrain)	3,028
491106	Los Angeles	Crandall St	Biofiltration (Underdrain)	634
491106	Los Angeles	Dryden Pl	Biofiltration (Underdrain)	739
491106	Los Angeles	Glassell St	Biofiltration (Underdrain)	620
491106	Los Angeles	Hyans St	Biofiltration (Underdrain)	1,072
491106	Los Angeles	Kent St	Biofiltration (Underdrain)	1,436
491106	Los Angeles	Marathon St	Biofiltration (Underdrain)	1,018
491106	Los Angeles	Merwin St	Biofiltration (Underdrain)	69
491106	Los Angeles	Miramar St	Biofiltration (Underdrain)	1,728
491106	Los Angeles	Mohawk St	Biofiltration (Underdrain)	390
491106	Los Angeles	N Alvarado St	Biofiltration (Underdrain)	1,479

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491106	Los Angeles	N Benton Way	Biofiltration (Underdrain)	2,436
491106	Los Angeles	N Bonnie Brae St	Biofiltration (Underdrain)	2,357
491106	Los Angeles	N Burlington Ave	Biofiltration (Underdrain)	1,984
491106	Los Angeles	N Carondelet St	Biofiltration (Underdrain)	1,233
491106	Los Angeles	N Coronado St	Biofiltration (Underdrain)	3,247
491106	Los Angeles	N Hollywood Fwy	Biofiltration (Underdrain)	107
491106	Los Angeles	N la Fayette Park Pl	Biofiltration (Underdrain)	409
491106	Los Angeles	N Lake St	Biofiltration (Underdrain)	1,565
491106	Los Angeles	N Mountain View Ave	Biofiltration (Underdrain)	1,481
491106	Los Angeles	N Occidental Blvd	Biofiltration (Underdrain)	1,641
491106	Los Angeles	N Park View St	Biofiltration (Underdrain)	1,493
491106	Los Angeles	N Rampart Blvd	Biofiltration (Underdrain)	2,726
491106	Los Angeles	N Reno St	Biofiltration (Underdrain)	826
491106	Los Angeles	N Rosemont Ave	Biofiltration (Underdrain)	195
491106	Los Angeles	N Scout Way	Biofiltration (Underdrain)	146
491106	Los Angeles	N Union Ave	Biofiltration (Underdrain)	1,606
491106	Los Angeles	N Waterloo St	Biofiltration (Underdrain)	251
491106	Los Angeles	N Westlake Ave	Biofiltration (Underdrain)	1,282
491106	Los Angeles	Ocean View Ave	Biofiltration (Underdrain)	1,790
491106	Los Angeles	Parkman Ave	Biofiltration (Underdrain)	126
491106	Los Angeles	Plata St	Biofiltration (Underdrain)	439
491106	Los Angeles	Rockwood St	Biofiltration (Underdrain)	326
491106	Los Angeles	Roselake Ave	Biofiltration (Underdrain)	1,391
491106	Los Angeles	Rosemont Ave	Biofiltration (Underdrain)	3,160
491106	Los Angeles	Rosenell Ter	Biofiltration (Underdrain)	238
491106	Los Angeles	S Alvarado St	Biofiltration (Underdrain)	1,499
491106	Los Angeles	S Benton Way	Biofiltration (Underdrain)	2,522
491106	Los Angeles	S Bonnie Brae St	Biofiltration (Underdrain)	1,032
491106	Los Angeles	S Burlington Ave	Biofiltration (Underdrain)	64
491106	Los Angeles	S Carondelet St	Biofiltration (Underdrain)	1,896
491106	Los Angeles	S Coronado St	Biofiltration (Underdrain)	1,836
491106	Los Angeles	S Grand View St	Biofiltration (Underdrain)	1,360
491106	Los Angeles	S la Fayette Park Pl	Biofiltration (Underdrain)	3,579
491106	Los Angeles	S Lafayette Park Pl	Biofiltration (Underdrain)	674
491106	Los Angeles	S Lake St	Biofiltration (Underdrain)	2,019
491106	Los Angeles	S Mountain View Ave	Biofiltration (Underdrain)	837
491106	Los Angeles	S Occidental Blvd	Biofiltration (Underdrain)	1,691
491106	Los Angeles	S Park View St	Biofiltration (Underdrain)	2,395
491106	Los Angeles	S Rampart Blvd	Biofiltration (Underdrain)	3,582
491106	Los Angeles	S Reno St	Biofiltration (Underdrain)	865
491106	Los Angeles	S Westlake Ave	Biofiltration (Underdrain)	1,085
491106	Los Angeles	Santa Ynez St	Biofiltration (Underdrain)	670
491106	Los Angeles	Scout Way	Biofiltration (Underdrain)	703
491106	Los Angeles	Valley St	Biofiltration (Underdrain)	1,212
491106	Los Angeles	W 2nd St	Biofiltration (Underdrain)	2,367
491106	Los Angeles	W 3rd St	Biofiltration (Underdrain)	3,015
491106	Los Angeles	W 4th St	Biofiltration (Underdrain)	1,115
491106	Los Angeles	W 5th St	Biofiltration (Underdrain)	202
491106	Los Angeles	W 6th St	Biofiltration (Underdrain)	2,701
491106	Los Angeles	W Clinton St	Biofiltration (Underdrain)	1,101
491106	Los Angeles	W Court St	Biofiltration (Underdrain)	2,285
491106	Los Angeles	W Kent St	Biofiltration (Underdrain)	631
491106	Los Angeles	W Plata St	Biofiltration (Underdrain)	25
491106	Los Angeles	W Santa Ynez St	Biofiltration (Underdrain)	267
491106	Los Angeles	W Temple St	Biofiltration (Underdrain)	4,772

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491106	Los Angeles	Waterloo St	Biofiltration (Underdrain)	1,263
491106	Los Angeles	Wilshire Blvd	Biofiltration (Underdrain)	1,323
491106	Los Angeles	Zalvidea St	Biofiltration (Underdrain)	275
491107	Los Angeles	(unknown)	Biofiltration (Underdrain)	493
491107	Los Angeles	Beverly Blvd	Biofiltration (Underdrain)	1,992
491107	Los Angeles	Council St	Biofiltration (Underdrain)	1,240
491107	Los Angeles	Geneva St	Biofiltration (Underdrain)	665
491107	Los Angeles	N Commonwealth Ave	Biofiltration (Underdrain)	346
491107	Los Angeles	N Dillon St	Biofiltration (Underdrain)	1,211
491107	Los Angeles	N Hoover St	Biofiltration (Underdrain)	964
491107	Los Angeles	N Reno St	Biofiltration (Underdrain)	13
491107	Los Angeles	N Vendome St	Biofiltration (Underdrain)	1,218
491107	Los Angeles	N Virgil Ave	Biofiltration (Underdrain)	527
491107	Los Angeles	Robinson St	Biofiltration (Underdrain)	1,151
491107	Los Angeles	S Commonwealth Ave	Biofiltration (Underdrain)	2,678
491107	Los Angeles	S Dillon St	Biofiltration (Underdrain)	748
491107	Los Angeles	S Hoover St	Biofiltration (Underdrain)	3,086
491107	Los Angeles	S Occidental Blvd	Biofiltration (Underdrain)	2,225
491107	Los Angeles	S Reno St	Biofiltration (Underdrain)	1,022
491107	Los Angeles	S Vendome St	Biofiltration (Underdrain)	1,292
491107	Los Angeles	W 1st St	Biofiltration (Underdrain)	84
491107	Los Angeles	W 2nd St	Biofiltration (Underdrain)	948
491107	Los Angeles	W 3rd St	Biofiltration (Underdrain)	1,906
491107	Los Angeles	W 4th St	Biofiltration (Underdrain)	460
491107	Los Angeles	W 5th St	Biofiltration (Underdrain)	128
491107	Los Angeles	W 6th St	Biofiltration (Underdrain)	420
491108	Los Angeles	(unknown)	Bioretention (No Underdrain)	586
491108	Los Angeles	Adrian St	Bioretention (No Underdrain)	22
491108	Los Angeles	Aloha St	Bioretention (No Underdrain)	317
491108	Los Angeles	Ambrose Ave	Bioretention (No Underdrain)	916
491108	Los Angeles	Ambrose Ter	Bioretention (No Underdrain)	250
491108	Los Angeles	Ames St	Bioretention (No Underdrain)	516
491108	Los Angeles	Angus St	Bioretention (No Underdrain)	141
491108	Los Angeles	Armstrong Ave	Bioretention (No Underdrain)	1,353
491108	Los Angeles	Avenel St	Bioretention (No Underdrain)	219
491108	Los Angeles	Avocado St	Bioretention (No Underdrain)	2,029
491108	Los Angeles	Balmer Dr	Bioretention (No Underdrain)	62
491108	Los Angeles	Bates Ave	Bioretention (No Underdrain)	1,855
491108	Los Angeles	Ben Lomond Dr	Bioretention (No Underdrain)	253
491108	Los Angeles	Ben Lomond Pl	Bioretention (No Underdrain)	740
491108	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	740
491108	Los Angeles	Bright Ln	Bioretention (No Underdrain)	1
491108	Los Angeles	Burns Ave	Bioretention (No Underdrain)	1,006
491108	Los Angeles	Camero Ave	Bioretention (No Underdrain)	1,846
491108	Los Angeles	Cedarhurst Cir	Bioretention (No Underdrain)	136
491108	Los Angeles	Cedarhurst Dr	Bioretention (No Underdrain)	200
491108	Los Angeles	Childs Ct	Bioretention (No Underdrain)	130
491108	Los Angeles	Claremont Ave	Bioretention (No Underdrain)	34
491108	Los Angeles	Clarissa Ave	Bioretention (No Underdrain)	1,032
491108	Los Angeles	Clayton Ave	Bioretention (No Underdrain)	2,565
491108	Los Angeles	Clinton St	Bioretention (No Underdrain)	802
491108	Los Angeles	Colony Cir	Bioretention (No Underdrain)	113
491108	Los Angeles	Council St	Bioretention (No Underdrain)	46
491108	Los Angeles	Cumberland Ave	Bioretention (No Underdrain)	692
491108	Los Angeles	de Longpre Ave	Bioretention (No Underdrain)	42

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491108	Los Angeles	del Mar Ave	Bioretention (No Underdrain)	903
491108	Los Angeles	E Franklin Ave	Bioretention (No Underdrain)	84
491108	Los Angeles	Edgecliffe Dr	Bioretention (No Underdrain)	1,392
491108	Los Angeles	Effie St	Bioretention (No Underdrain)	1,501
491108	Los Angeles	Ellsworth St	Bioretention (No Underdrain)	307
491108	Los Angeles	Entrance Dr	Bioretention (No Underdrain)	74
491108	Los Angeles	Ettrick St	Bioretention (No Underdrain)	496
491108	Los Angeles	Evans St	Bioretention (No Underdrain)	447
491108	Los Angeles	Fernwood Ave	Bioretention (No Underdrain)	334
491108	Los Angeles	Finley Ave	Bioretention (No Underdrain)	1,214
491108	Los Angeles	Fountain Ave	Bioretention (No Underdrain)	2,455
491108	Los Angeles	Franklin Ave	Bioretention (No Underdrain)	1,639
491108	Los Angeles	Gateway Ave	Bioretention (No Underdrain)	1,048
491108	Los Angeles	Golden Gate Ave	Bioretention (No Underdrain)	15
491108	Los Angeles	Griffith Park Blvd	Bioretention (No Underdrain)	7,202
491108	Los Angeles	Hazel Kirk Dr	Bioretention (No Underdrain)	423
491108	Los Angeles	Hillhurst Ave	Bioretention (No Underdrain)	4,793
491108	Los Angeles	Holly Knoll Dr	Bioretention (No Underdrain)	358
491108	Los Angeles	Hollywood Blvd	Bioretention (No Underdrain)	1,608
491108	Los Angeles	Hyperion Ave	Bioretention (No Underdrain)	7,224
491108	Los Angeles	Imogen Ave	Bioretention (No Underdrain)	497
491108	Los Angeles	Ivan Ct	Bioretention (No Underdrain)	16
491108	Los Angeles	Ivanhoe Dr	Bioretention (No Underdrain)	120
491108	Los Angeles	Kenilworth Ave	Bioretention (No Underdrain)	106
491108	Los Angeles	Kingswell Ave	Bioretention (No Underdrain)	1,466
491108	Los Angeles	la Paz Dr	Bioretention (No Underdrain)	284
491108	Los Angeles	Lake View Ter E	Bioretention (No Underdrain)	128
491108	Los Angeles	Lake View Ter W	Bioretention (No Underdrain)	122
491108	Los Angeles	Lakewood Ave	Bioretention (No Underdrain)	344
491108	Los Angeles	Landa St	Bioretention (No Underdrain)	178
491108	Los Angeles	Lanterman Ter	Bioretention (No Underdrain)	53
491108	Los Angeles	Lexington Ave	Bioretention (No Underdrain)	942
491108	Los Angeles	Lindsay Ln	Bioretention (No Underdrain)	6
491108	Los Angeles	Lockwood Ave	Bioretention (No Underdrain)	589
491108	Los Angeles	Los Feliz Blvd	Bioretention (No Underdrain)	1,378
491108	Los Angeles	Los Nietos Dr	Bioretention (No Underdrain)	133
491108	Los Angeles	Lowry Rd	Bioretention (No Underdrain)	421
491108	Los Angeles	Lucile Ave	Bioretention (No Underdrain)	1,441
491108	Los Angeles	Lyman Pl	Bioretention (No Underdrain)	1,736
491108	Los Angeles	Lytic Ave	Bioretention (No Underdrain)	971
491108	Los Angeles	Maltman Ave	Bioretention (No Underdrain)	885
491108	Los Angeles	Manzanita St	Bioretention (No Underdrain)	2,303
491108	Los Angeles	Marathon St	Bioretention (No Underdrain)	923
491108	Los Angeles	Maxwell St	Bioretention (No Underdrain)	779
491108	Los Angeles	Mazanita St	Bioretention (No Underdrain)	71
491108	Los Angeles	Meadow Valley Ter	Bioretention (No Underdrain)	184
491108	Los Angeles	Melbourne Ave	Bioretention (No Underdrain)	1,469
491108	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	993
491108	Los Angeles	Micheltorena St	Bioretention (No Underdrain)	102
491108	Los Angeles	Middlebury St	Bioretention (No Underdrain)	387
491108	Los Angeles	Monon St	Bioretention (No Underdrain)	2,238
491108	Los Angeles	Monroe St	Bioretention (No Underdrain)	799
491108	Los Angeles	Moreno Dr	Bioretention (No Underdrain)	572
491108	Los Angeles	Myra Ave	Bioretention (No Underdrain)	4,375
491108	Los Angeles	N Commonwealth Ave	Bioretention (No Underdrain)	6,753

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491108	Los Angeles	N Hoover St	Bioretention (No Underdrain)	7,067
491108	Los Angeles	N Hyperion Ave	Bioretention (No Underdrain)	508
491108	Los Angeles	N Lyric Ave	Bioretention (No Underdrain)	502
491108	Los Angeles	N Madison Ave	Bioretention (No Underdrain)	209
491108	Los Angeles	N Meadow Valley Ter	Bioretention (No Underdrain)	25
491108	Los Angeles	N Monon St	Bioretention (No Underdrain)	563
491108	Los Angeles	N Myra Ave	Bioretention (No Underdrain)	54
491108	Los Angeles	N Radio Walk	Bioretention (No Underdrain)	147
491108	Los Angeles	N Ronda Vista Dr	Bioretention (No Underdrain)	176
491108	Los Angeles	N St George St	Bioretention (No Underdrain)	185
491108	Los Angeles	N Vermont Ave	Bioretention (No Underdrain)	1
491108	Los Angeles	N Virgil Ave	Bioretention (No Underdrain)	5,840
491108	Los Angeles	N Westmoreland Ave	Bioretention (No Underdrain)	1,601
491108	Los Angeles	Newdale Dr	Bioretention (No Underdrain)	320
491108	Los Angeles	Normal Ave	Bioretention (No Underdrain)	892
491108	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	112
491108	Los Angeles	Observatory Ave	Bioretention (No Underdrain)	11
491108	Los Angeles	Panorama Ter	Bioretention (No Underdrain)	141
491108	Los Angeles	Price St	Bioretention (No Underdrain)	1,130
491108	Los Angeles	Prospect Ave	Bioretention (No Underdrain)	3,088
491108	Los Angeles	Putnam St	Bioretention (No Underdrain)	266
491108	Los Angeles	Radio St	Bioretention (No Underdrain)	147
491108	Los Angeles	Rector Pl	Bioretention (No Underdrain)	40
491108	Los Angeles	Redcliff St	Bioretention (No Underdrain)	82
491108	Los Angeles	Richland Ave	Bioretention (No Underdrain)	3
491108	Los Angeles	Rock St	Bioretention (No Underdrain)	84
491108	Los Angeles	Rodney Dr	Bioretention (No Underdrain)	1,054
491108	Los Angeles	Rokeby St	Bioretention (No Underdrain)	409
491108	Los Angeles	Ronda Vista Dr	Bioretention (No Underdrain)	176
491108	Los Angeles	Rosalia Rd	Bioretention (No Underdrain)	1,185
491108	Los Angeles	Rowena Ave	Bioretention (No Underdrain)	4,392
491108	Los Angeles	Russell Ave	Bioretention (No Underdrain)	1,976
491108	Los Angeles	Sanborn Ave	Bioretention (No Underdrain)	3,746
491108	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	2,416
491108	Los Angeles	Scotland St	Bioretention (No Underdrain)	760
491108	Los Angeles	Silver Lake Blvd	Bioretention (No Underdrain)	585
491108	Los Angeles	Silver Lake Ter	Bioretention (No Underdrain)	8
491108	Los Angeles	Silver Lea Ter	Bioretention (No Underdrain)	20
491108	Los Angeles	Silverado Dr	Bioretention (No Underdrain)	395
491108	Los Angeles	St George St	Bioretention (No Underdrain)	2,890
491108	Los Angeles	Sunset Blvd	Bioretention (No Underdrain)	4,149
491108	Los Angeles	Sunset Dr	Bioretention (No Underdrain)	2,073
491108	Los Angeles	Surry St	Bioretention (No Underdrain)	277
491108	Los Angeles	Talmadge St	Bioretention (No Underdrain)	4,318
491108	Los Angeles	Tesla Ave	Bioretention (No Underdrain)	983
491108	Los Angeles	Tesla Ter	Bioretention (No Underdrain)	104
491108	Los Angeles	Tracy St	Bioretention (No Underdrain)	2,819
491108	Los Angeles	Udell Ct	Bioretention (No Underdrain)	3
491108	Los Angeles	Venango Ave	Bioretention (No Underdrain)	563
491108	Los Angeles	Venango Cir	Bioretention (No Underdrain)	41
491108	Los Angeles	Virgil Pl	Bioretention (No Underdrain)	276
491108	Los Angeles	Virginia Ave	Bioretention (No Underdrain)	574
491108	Los Angeles	W Council St	Bioretention (No Underdrain)	72
491108	Los Angeles	W Holly Knoll Dr	Bioretention (No Underdrain)	246
491108	Los Angeles	W Silver Lake Dr	Bioretention (No Underdrain)	938

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491108	Los Angeles	W Sunset Blvd	Bioretention (No Underdrain)	4,237
491108	Los Angeles	W Temple St	Bioretention (No Underdrain)	680
491108	Los Angeles	Wanda Dr	Bioretention (No Underdrain)	14
491108	Los Angeles	Waverly Dr	Bioretention (No Underdrain)	136
491108	Los Angeles	Wayne Ave	Bioretention (No Underdrain)	14
491108	Los Angeles	Willow Brook Ave	Bioretention (No Underdrain)	775
491108	Los Angeles	Wit Pl	Bioretention (No Underdrain)	328
491108	Los Angeles	Wood Ter	Bioretention (No Underdrain)	350
491109	Los Angeles	(unknown)	Biofiltration (Underdrain)	281
491109	Los Angeles	Aaron St	Biofiltration (Underdrain)	68
491109	Los Angeles	Angelus Ave	Biofiltration (Underdrain)	1,413
491109	Los Angeles	Bellevue Ave	Biofiltration (Underdrain)	2,640
491109	Los Angeles	Berkeley Ave	Biofiltration (Underdrain)	1,358
491109	Los Angeles	Berkeley Cir	Biofiltration (Underdrain)	128
491109	Los Angeles	Castle St	Biofiltration (Underdrain)	3
491109	Los Angeles	Clinton St	Biofiltration (Underdrain)	10
491109	Los Angeles	Coronado Ter	Biofiltration (Underdrain)	1,357
491109	Los Angeles	Council St	Biofiltration (Underdrain)	16
491109	Los Angeles	Dahlia Ave	Biofiltration (Underdrain)	15
491109	Los Angeles	del Monte Dr	Biofiltration (Underdrain)	624
491109	Los Angeles	Descanso Dr	Biofiltration (Underdrain)	1,138
491109	Los Angeles	Duane St	Biofiltration (Underdrain)	155
491109	Los Angeles	Easterly Ter	Biofiltration (Underdrain)	28
491109	Los Angeles	Edgecliffe Dr	Biofiltration (Underdrain)	123
491109	Los Angeles	Effie Pl	Biofiltration (Underdrain)	28
491109	Los Angeles	Effie St	Biofiltration (Underdrain)	404
491109	Los Angeles	Elevado St	Biofiltration (Underdrain)	647
491109	Los Angeles	Ellett Pl	Biofiltration (Underdrain)	217
491109	Los Angeles	Ellsworth St	Biofiltration (Underdrain)	653
491109	Los Angeles	Elsinore St	Biofiltration (Underdrain)	1,168
491109	Los Angeles	Fanita St	Biofiltration (Underdrain)	275
491109	Los Angeles	Fanning St	Biofiltration (Underdrain)	2
491109	Los Angeles	Golden Gate Ave	Biofiltration (Underdrain)	1,303
491109	Los Angeles	Hamilton Way	Biofiltration (Underdrain)	215
491109	Los Angeles	Imogen Ave	Biofiltration (Underdrain)	510
491109	Los Angeles	Jewel St	Biofiltration (Underdrain)	274
491109	Los Angeles	Kent St	Biofiltration (Underdrain)	220
491109	Los Angeles	Landa St	Biofiltration (Underdrain)	77
491109	Los Angeles	London St	Biofiltration (Underdrain)	2,259
491109	Los Angeles	Lucile Ave	Biofiltration (Underdrain)	1,127
491109	Los Angeles	Maltman Ave	Biofiltration (Underdrain)	1,368
491109	Los Angeles	Marathon St	Biofiltration (Underdrain)	2,139
491109	Los Angeles	Marcia Dr	Biofiltration (Underdrain)	86
491109	Los Angeles	Mayberry St	Biofiltration (Underdrain)	967
491109	Los Angeles	McCollum Pl	Biofiltration (Underdrain)	283
491109	Los Angeles	McCollum St	Biofiltration (Underdrain)	1,222
491109	Los Angeles	Micheltorena St	Biofiltration (Underdrain)	3,605
491109	Los Angeles	Middlebury St	Biofiltration (Underdrain)	397
491109	Los Angeles	Mohawk St	Biofiltration (Underdrain)	1,387
491109	Los Angeles	Montana St	Biofiltration (Underdrain)	594
491109	Los Angeles	Murray Cir	Biofiltration (Underdrain)	33
491109	Los Angeles	Murray Dr	Biofiltration (Underdrain)	100
491109	Los Angeles	N Benton Way	Biofiltration (Underdrain)	3,123
491109	Los Angeles	N Commonwealth Ave	Biofiltration (Underdrain)	450
491109	Los Angeles	N Coronado St	Biofiltration (Underdrain)	2,405

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491109	Los Angeles	N Dillon St	Biofiltration (Underdrain)	2,404
491109	Los Angeles	N Hoover St	Biofiltration (Underdrain)	1,442
491109	Los Angeles	N la Fayette Park Pl	Biofiltration (Underdrain)	1,486
491109	Los Angeles	N McCollum St	Biofiltration (Underdrain)	372
491109	Los Angeles	N Occidental Blvd	Biofiltration (Underdrain)	1,978
491109	Los Angeles	N Rampart Blvd	Biofiltration (Underdrain)	1,181
491109	Los Angeles	N Reno St	Biofiltration (Underdrain)	1,545
491109	Los Angeles	N Vendome St	Biofiltration (Underdrain)	3,109
491109	Los Angeles	N Virgil Ave	Biofiltration (Underdrain)	98
491109	Los Angeles	Parkman Ave	Biofiltration (Underdrain)	2,049
491109	Los Angeles	Plata St	Biofiltration (Underdrain)	788
491109	Los Angeles	Redcliff St	Biofiltration (Underdrain)	483
491109	Los Angeles	Redesdale Ave	Biofiltration (Underdrain)	190
491109	Los Angeles	Rendall Pl	Biofiltration (Underdrain)	57
491109	Los Angeles	Reservoir St	Biofiltration (Underdrain)	1,531
491109	Los Angeles	Robinson St	Biofiltration (Underdrain)	1,519
491109	Los Angeles	Rockford Rd	Biofiltration (Underdrain)	52
491109	Los Angeles	Rosemont Ave	Biofiltration (Underdrain)	310
491109	Los Angeles	Rotary Dr	Biofiltration (Underdrain)	178
491109	Los Angeles	Sayre Ln	Biofiltration (Underdrain)	12
491109	Los Angeles	Scott Ave	Biofiltration (Underdrain)	843
491109	Los Angeles	Scott Pl	Biofiltration (Underdrain)	405
491109	Los Angeles	Silver Lake Blvd	Biofiltration (Underdrain)	8,780
491109	Los Angeles	Silverlake Blvd	Biofiltration (Underdrain)	15
491109	Los Angeles	Silverwood Ter	Biofiltration (Underdrain)	22
491109	Los Angeles	Smilax St	Biofiltration (Underdrain)	406
491109	Los Angeles	Sunset Blvd	Biofiltration (Underdrain)	3,585
491109	Los Angeles	Swan Pl	Biofiltration (Underdrain)	205
491109	Los Angeles	Tularosa Dr	Biofiltration (Underdrain)	1,623
491109	Los Angeles	Van Pelt Pl	Biofiltration (Underdrain)	376
491109	Los Angeles	W Descanso Dr	Biofiltration (Underdrain)	376
491109	Los Angeles	W Silver Lake Dr	Biofiltration (Underdrain)	817
491109	Los Angeles	W Smilax St	Biofiltration (Underdrain)	91
491109	Los Angeles	W Sunset Blvd	Biofiltration (Underdrain)	4,705
491109	Los Angeles	W Temple St	Biofiltration (Underdrain)	1,595
491109	Los Angeles	Waterloo St	Biofiltration (Underdrain)	1,302
491109	Los Angeles	Westerly Ter	Biofiltration (Underdrain)	376
491110	Los Angeles	(unknown)	Bioretention (No Underdrain)	5,127
491110	Los Angeles	12th Ave	Bioretention (No Underdrain)	1,059
491110	Los Angeles	2nd Ave	Bioretention (No Underdrain)	1,200
491110	Los Angeles	3rd Ave	Bioretention (No Underdrain)	5,346
491110	Los Angeles	4th Ave	Bioretention (No Underdrain)	4,415
491110	Los Angeles	5th Ave	Bioretention (No Underdrain)	5,452
491110	Los Angeles	6th Ave	Bioretention (No Underdrain)	1,174
491110	Los Angeles	Arlington Ave	Bioretention (No Underdrain)	3,306
491110	Los Angeles	Beacon Ave	Bioretention (No Underdrain)	372
491110	Los Angeles	Columbia Ave	Bioretention (No Underdrain)	23
491110	Los Angeles	Connecticut St	Bioretention (No Underdrain)	495
491110	Los Angeles	Country Club Dr	Bioretention (No Underdrain)	5,377
491110	Los Angeles	Crenshaw Blvd	Bioretention (No Underdrain)	2,522
491110	Los Angeles	Crown Hill Ave	Bioretention (No Underdrain)	513
491110	Los Angeles	Dewey Ave	Bioretention (No Underdrain)	1,842
491110	Los Angeles	Diana St	Bioretention (No Underdrain)	285
491110	Los Angeles	Dockweiler St	Bioretention (No Underdrain)	945
491110	Los Angeles	Elden Ave	Bioretention (No Underdrain)	2,695

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491110	Los Angeles	Fedora St	Bioretention (No Underdrain)	3,137
491110	Los Angeles	Francis Ave	Bioretention (No Underdrain)	2,097
491110	Los Angeles	Geneva St	Bioretention (No Underdrain)	315
491110	Los Angeles	Gramercy Dr	Bioretention (No Underdrain)	3,660
491110	Los Angeles	Harrington Ave	Bioretention (No Underdrain)	496
491110	Los Angeles	Irolo St	Bioretention (No Underdrain)	4,839
491110	Los Angeles	James M Wood Bl	Bioretention (No Underdrain)	661
491110	Los Angeles	James M Wood Blvd	Bioretention (No Underdrain)	6,151
491110	Los Angeles	Leeward Ave	Bioretention (No Underdrain)	3,314
491110	Los Angeles	Little St	Bioretention (No Underdrain)	620
491110	Los Angeles	Loma Dr	Bioretention (No Underdrain)	1,148
491110	Los Angeles	Loma Pl	Bioretention (No Underdrain)	27
491110	Los Angeles	Lomita St	Bioretention (No Underdrain)	20
491110	Los Angeles	Magnolia Ave	Bioretention (No Underdrain)	2,768
491110	Los Angeles	Maryland St	Bioretention (No Underdrain)	326
491110	Los Angeles	Menlo Ave	Bioretention (No Underdrain)	2,811
491110	Los Angeles	Miramar St	Bioretention (No Underdrain)	359
491110	Los Angeles	Monette Pl	Bioretention (No Underdrain)	495
491110	Los Angeles	N Normandie Ave	Bioretention (No Underdrain)	27
491110	Los Angeles	N Rimpau Blvd	Bioretention (No Underdrain)	47
491110	Los Angeles	Nadeau Dr	Bioretention (No Underdrain)	358
491110	Los Angeles	Queen Anne Pl	Bioretention (No Underdrain)	1,648
491110	Los Angeles	S Alexandria Ave	Bioretention (No Underdrain)	1,865
491110	Los Angeles	S Alvarado St	Bioretention (No Underdrain)	5,154
491110	Los Angeles	S Ardmore Ave	Bioretention (No Underdrain)	6,469
491110	Los Angeles	S Berendo St	Bioretention (No Underdrain)	8,849
491110	Los Angeles	S Bonnie Brae St	Bioretention (No Underdrain)	4,538
491110	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	6,072
491110	Los Angeles	S Burlington Ave	Bioretention (No Underdrain)	4,973
491110	Los Angeles	S Carondelet St	Bioretention (No Underdrain)	2,560
491110	Los Angeles	S Catalina St	Bioretention (No Underdrain)	7,798
491110	Los Angeles	S Commonwealth Ave	Bioretention (No Underdrain)	1,186
491110	Los Angeles	S Coronado St	Bioretention (No Underdrain)	1,296
491110	Los Angeles	S Gramercy Dr	Bioretention (No Underdrain)	3,660
491110	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	5,177
491110	Los Angeles	S Grand View St	Bioretention (No Underdrain)	3,311
491110	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	5,090
491110	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	5,333
491110	Los Angeles	S Hoover St	Bioretention (No Underdrain)	2,587
491110	Los Angeles	S Irolo St	Bioretention (No Underdrain)	142
491110	Los Angeles	S Kenmore Ave	Bioretention (No Underdrain)	5,326
491110	Los Angeles	S Kingsley Dr	Bioretention (No Underdrain)	5,188
491110	Los Angeles	S la Fayette Park Pl	Bioretention (No Underdrain)	535
491110	Los Angeles	S Lafayette Park Pl	Bioretention (No Underdrain)	535
491110	Los Angeles	S Lake St	Bioretention (No Underdrain)	3,172
491110	Los Angeles	S Lucerne Blvd	Bioretention (No Underdrain)	1,097
491110	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	5,058
491110	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	6,627
491110	Los Angeles	S Muirfield Rd	Bioretention (No Underdrain)	1,312
491110	Los Angeles	S Mullen Ave	Bioretention (No Underdrain)	1,334
491110	Los Angeles	S New Hampshire Ave	Bioretention (No Underdrain)	9,095
491110	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	6,871
491110	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	6,387
491110	Los Angeles	S Oxford Ave	Bioretention (No Underdrain)	4,180
491110	Los Angeles	S Park View St	Bioretention (No Underdrain)	3,874

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491110	Los Angeles	S Plymouth Blvd	Bioretention (No Underdrain)	2,457
491110	Los Angeles	S Rampart Blvd	Bioretention (No Underdrain)	1,230
491110	Los Angeles	S Rimpau Blvd	Bioretention (No Underdrain)	101
491110	Los Angeles	S San Vicente Blvd	Bioretention (No Underdrain)	82
491110	Los Angeles	S Serrano Ave	Bioretention (No Underdrain)	4,252
491110	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	5,012
491110	Los Angeles	S Union Ave	Bioretention (No Underdrain)	3,398
491110	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	1,173
491110	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	8,288
491110	Los Angeles	S Victoria Ave	Bioretention (No Underdrain)	2,364
491110	Los Angeles	S Virgil Ave	Bioretention (No Underdrain)	2,951
491110	Los Angeles	S West Blvd	Bioretention (No Underdrain)	328
491110	Los Angeles	S Western Ave	Bioretention (No Underdrain)	5,162
491110	Los Angeles	S Westlake Ave	Bioretention (No Underdrain)	4,958
491110	Los Angeles	S Westmoreland Ave	Bioretention (No Underdrain)	7,191
491110	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	5,702
491110	Los Angeles	S Windsor Blvd	Bioretention (No Underdrain)	2,748
491110	Los Angeles	San Marino St	Bioretention (No Underdrain)	8,416
491110	Los Angeles	San Vicente Blvd	Bioretention (No Underdrain)	195
491110	Los Angeles	Shatto Pl	Bioretention (No Underdrain)	2,626
491110	Los Angeles	Shatto St	Bioretention (No Underdrain)	682
491110	Los Angeles	Sunset Pl	Bioretention (No Underdrain)	985
491110	Los Angeles	Union Dr	Bioretention (No Underdrain)	792
491110	Los Angeles	Union Pl	Bioretention (No Underdrain)	1,890
491110	Los Angeles	Valencia St	Bioretention (No Underdrain)	715
491110	Los Angeles	Venice Blvd	Bioretention (No Underdrain)	4,087
491110	Los Angeles	Victoria Park Dr	Bioretention (No Underdrain)	1,710
491110	Los Angeles	Victoria Park Pl	Bioretention (No Underdrain)	873
491110	Los Angeles	Vineyard Ave	Bioretention (No Underdrain)	421
491110	Los Angeles	W 10th St	Bioretention (No Underdrain)	1,287
491110	Los Angeles	W 11th Pl	Bioretention (No Underdrain)	233
491110	Los Angeles	W 11th St	Bioretention (No Underdrain)	11,128
491110	Los Angeles	W 12th Pl	Bioretention (No Underdrain)	826
491110	Los Angeles	W 12th St	Bioretention (No Underdrain)	7,313
491110	Los Angeles	W 14th St	Bioretention (No Underdrain)	1,064
491110	Los Angeles	W 15th St	Bioretention (No Underdrain)	1,946
491110	Los Angeles	W 16th Pl	Bioretention (No Underdrain)	627
491110	Los Angeles	W 2nd St	Bioretention (No Underdrain)	934
491110	Los Angeles	W 3rd St	Bioretention (No Underdrain)	4,205
491110	Los Angeles	W 4th St	Bioretention (No Underdrain)	4,116
491110	Los Angeles	W 5th St	Bioretention (No Underdrain)	4,871
491110	Los Angeles	W 6th St	Bioretention (No Underdrain)	7,586
491110	Los Angeles	W 7th St	Bioretention (No Underdrain)	12,235
491110	Los Angeles	W 8th St	Bioretention (No Underdrain)	14,607
491110	Los Angeles	W 9th St	Bioretention (No Underdrain)	11,635
491110	Los Angeles	W James M Wood	Bioretention (No Underdrain)	380
491110	Los Angeles	W James M Wood Bl	Bioretention (No Underdrain)	760
491110	Los Angeles	W James M Wood Blvd	Bioretention (No Underdrain)	2,333
491110	Los Angeles	W James W Wood	Bioretention (No Underdrain)	380
491110	Los Angeles	W Maryland St	Bioretention (No Underdrain)	566
491110	Los Angeles	W Olympic Blvd	Bioretention (No Underdrain)	13,413
491110	Los Angeles	W Pico Blvd	Bioretention (No Underdrain)	12,187
491110	Los Angeles	West Blvd	Bioretention (No Underdrain)	1,999
491110	Los Angeles	Westchester Pl	Bioretention (No Underdrain)	4,183
491110	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	8,681

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491110	Los Angeles	Wilshire Pl	Bioretention (No Underdrain)	737
491111	Los Angeles	(unknown)	Bioretention (No Underdrain)	360
491111	Los Angeles	Aberdeen Ave	Bioretention (No Underdrain)	685
491111	Los Angeles	Ambrose Ave	Bioretention (No Underdrain)	1,245
491111	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	1,113
491111	Los Angeles	Bimini Pl	Bioretention (No Underdrain)	992
491111	Los Angeles	Burns Ave	Bioretention (No Underdrain)	1,166
491111	Los Angeles	Clarissa Ave	Bioretention (No Underdrain)	494
491111	Los Angeles	Clinton St	Bioretention (No Underdrain)	1,368
491111	Los Angeles	Cockerham Dr	Bioretention (No Underdrain)	69
491111	Los Angeles	Commonwealth Canyon Ave	Bioretention (No Underdrain)	38
491111	Los Angeles	Commonwealth Canyon Dr	Bioretention (No Underdrain)	2
491111	Los Angeles	Cosmopolitan St	Bioretention (No Underdrain)	433
491111	Los Angeles	Council St	Bioretention (No Underdrain)	1,344
491111	Los Angeles	Cromwell Ave	Bioretention (No Underdrain)	581
491111	Los Angeles	de Longpre Ave	Bioretention (No Underdrain)	609
491111	Los Angeles	Dracena Dr	Bioretention (No Underdrain)	1,496
491111	Los Angeles	Dundee Dr	Bioretention (No Underdrain)	335
491111	Los Angeles	E Barnsdall Ave	Bioretention (No Underdrain)	249
491111	Los Angeles	Finley Ave	Bioretention (No Underdrain)	1,262
491111	Los Angeles	Fountain Ave	Bioretention (No Underdrain)	2,041
491111	Los Angeles	Franklin Ave	Bioretention (No Underdrain)	1,294
491111	Los Angeles	Gainsborough Ave	Bioretention (No Underdrain)	1,675
491111	Los Angeles	Glendower Ave	Bioretention (No Underdrain)	489
491111	Los Angeles	Greenwood Pl	Bioretention (No Underdrain)	471
491111	Los Angeles	Hillhurst Ave	Bioretention (No Underdrain)	1,403
491111	Los Angeles	Hollywood Blvd	Bioretention (No Underdrain)	288
491111	Los Angeles	Inverness Ave	Bioretention (No Underdrain)	174
491111	Los Angeles	Kingswell Ave	Bioretention (No Underdrain)	1,177
491111	Los Angeles	la Mirada Ave	Bioretention (No Underdrain)	919
491111	Los Angeles	Lexington Ave	Bioretention (No Underdrain)	2,034
491111	Los Angeles	Lockwood Ave	Bioretention (No Underdrain)	1,419
491111	Los Angeles	Los Feliz Blvd	Bioretention (No Underdrain)	2,168
491111	Los Angeles	Lyman Pl	Bioretention (No Underdrain)	1,840
491111	Los Angeles	Marathon St	Bioretention (No Underdrain)	984
491111	Los Angeles	Maubert Ave	Bioretention (No Underdrain)	660
491111	Los Angeles	Melbourne Ave	Bioretention (No Underdrain)	1,197
491111	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	1,087
491111	Los Angeles	Middlebury St	Bioretention (No Underdrain)	759
491111	Los Angeles	Monroe St	Bioretention (No Underdrain)	1,546
491111	Los Angeles	N Berendo St	Bioretention (No Underdrain)	1,425
491111	Los Angeles	N Commonwealth Ave	Bioretention (No Underdrain)	2,783
491111	Los Angeles	N Edgemont St	Bioretention (No Underdrain)	1,157
491111	Los Angeles	N Heliotrope Dr	Bioretention (No Underdrain)	1,726
491111	Los Angeles	N Hillhurst Ave	Bioretention (No Underdrain)	1,019
491111	Los Angeles	N Juanita Ave	Bioretention (No Underdrain)	2,302
491111	Los Angeles	N Madison Ave	Bioretention (No Underdrain)	6,101
491111	Los Angeles	N New Hampshire Ave	Bioretention (No Underdrain)	1,539
491111	Los Angeles	N Vermont Ave	Bioretention (No Underdrain)	17,051
491111	Los Angeles	N Virgil Ave	Bioretention (No Underdrain)	1,909
491111	Los Angeles	N Westmoreland Ave	Bioretention (No Underdrain)	3,020
491111	Los Angeles	Nella Vista Ave	Bioretention (No Underdrain)	507
491111	Los Angeles	Normal Ave	Bioretention (No Underdrain)	1,191
491111	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	480
491111	Los Angeles	Observatory Ave	Bioretention (No Underdrain)	560

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491111	Los Angeles	Parva Ave	Bioretention (No Underdrain)	77
491111	Los Angeles	Prospect Ave	Bioretention (No Underdrain)	722
491111	Los Angeles	Richland Ave	Bioretention (No Underdrain)	414
491111	Los Angeles	Rodney Dr	Bioretention (No Underdrain)	3,531
491111	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	10
491111	Los Angeles	Rowena Ave	Bioretention (No Underdrain)	5
491111	Los Angeles	Russell Ave	Bioretention (No Underdrain)	1,219
491111	Los Angeles	S Commonwealth Ave	Bioretention (No Underdrain)	343
491111	Los Angeles	S Juanita Ave	Bioretention (No Underdrain)	502
491111	Los Angeles	S Madison Ave	Bioretention (No Underdrain)	694
491111	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	353
491111	Los Angeles	S Virgil Ave	Bioretention (No Underdrain)	958
491111	Los Angeles	S Westmoreland Ave	Bioretention (No Underdrain)	1,050
491111	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	2,121
491111	Los Angeles	Sunset Blvd	Bioretention (No Underdrain)	1,316
491111	Los Angeles	Vermont Pl	Bioretention (No Underdrain)	466
491111	Los Angeles	Virgil Pl	Bioretention (No Underdrain)	442
491111	Los Angeles	Vista del Valle Dr	Bioretention (No Underdrain)	5
491111	Los Angeles	W 1st St	Bioretention (No Underdrain)	1,791
491111	Los Angeles	W 2nd St	Bioretention (No Underdrain)	667
491111	Los Angeles	W 3rd St	Bioretention (No Underdrain)	667
491111	Los Angeles	W Cromwell Ave	Bioretention (No Underdrain)	69
491111	Los Angeles	W Sunset Blvd	Bioretention (No Underdrain)	1,316
491111	Los Angeles	W White House Pl	Bioretention (No Underdrain)	365
491111	Los Angeles	Wayne Ave	Bioretention (No Underdrain)	355
491111	Los Angeles	Welch Pl	Bioretention (No Underdrain)	505
491111	Los Angeles	White House Pl	Bioretention (No Underdrain)	365
491111	Los Angeles	Willow Brook Ave	Bioretention (No Underdrain)	2,718
491112	Los Angeles	(unknown)	Bioretention (No Underdrain)	1,398
491112	Los Angeles	Alexandria Pl	Bioretention (No Underdrain)	75
491112	Los Angeles	Ambrose Ave	Bioretention (No Underdrain)	2,193
491112	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	2,071
491112	Los Angeles	Brúna Pl	Bioretention (No Underdrain)	33
491112	Los Angeles	Cheswic Ln	Bioretention (No Underdrain)	568
491112	Los Angeles	Chislehurst Dr	Bioretention (No Underdrain)	436
491112	Los Angeles	Clinton St	Bioretention (No Underdrain)	1,853
491112	Los Angeles	Council St	Bioretention (No Underdrain)	1,675
491112	Los Angeles	Cromwell Ave	Bioretention (No Underdrain)	325
491112	Los Angeles	Cummings Dr	Bioretention (No Underdrain)	62
491112	Los Angeles	de Longpre Ave	Bioretention (No Underdrain)	1,293
491112	Los Angeles	de Mille Dr	Bioretention (No Underdrain)	62
491112	Los Angeles	Finley Ave	Bioretention (No Underdrain)	2,210
491112	Los Angeles	Fountain Ave	Bioretention (No Underdrain)	3,856
491112	Los Angeles	Franklin Ave	Bioretention (No Underdrain)	3,584
491112	Los Angeles	Harold Way	Bioretention (No Underdrain)	496
491112	Los Angeles	Heliotrope Dr	Bioretention (No Underdrain)	136
491112	Los Angeles	Hollywood Blvd	Bioretention (No Underdrain)	3,646
491112	Los Angeles	L Ron Hubbard Way	Bioretention (No Underdrain)	975
491112	Los Angeles	la Mirada Ave	Bioretention (No Underdrain)	93
491112	Los Angeles	Laughlin Park Dr	Bioretention (No Underdrain)	48
491112	Los Angeles	Lemon Grove Ave	Bioretention (No Underdrain)	78
491112	Los Angeles	Lexington Ave	Bioretention (No Underdrain)	2,340
491112	Los Angeles	Lily Crest Ave	Bioretention (No Underdrain)	877
491112	Los Angeles	Los Caballeros Way	Bioretention (No Underdrain)	19
491112	Los Angeles	Los Feliz Blvd	Bioretention (No Underdrain)	2,957

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491112	Los Angeles	Los Grandes Way	Bioretention (No Underdrain)	11
491112	Los Angeles	Los Hermosos Way	Bioretention (No Underdrain)	38
491112	Los Angeles	Lower Rd	Bioretention (No Underdrain)	76
491112	Los Angeles	Marathon St	Bioretention (No Underdrain)	302
491112	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	1,944
491112	Los Angeles	Monroe St	Bioretention (No Underdrain)	1,109
491112	Los Angeles	N Alexandria Ave	Bioretention (No Underdrain)	12,366
491112	Los Angeles	N Ardmore Ave	Bioretention (No Underdrain)	1,625
491112	Los Angeles	N Berendo St	Bioretention (No Underdrain)	7,033
491112	Los Angeles	N Catalina St	Bioretention (No Underdrain)	4,152
491112	Los Angeles	N Edgemont St	Bioretention (No Underdrain)	9,877
491112	Los Angeles	N Harvard Blvd	Bioretention (No Underdrain)	1,153
491112	Los Angeles	N Heliotrope Dr	Bioretention (No Underdrain)	4,377
491112	Los Angeles	N Hobart Blvd	Bioretention (No Underdrain)	1,348
491112	Los Angeles	N Kenmore Ave	Bioretention (No Underdrain)	12,442
491112	Los Angeles	N Kingsley Dr	Bioretention (No Underdrain)	5,324
491112	Los Angeles	N Mariposa Ave	Bioretention (No Underdrain)	10,038
491112	Los Angeles	N New Hampshire Ave	Bioretention (No Underdrain)	8,517
491112	Los Angeles	N Normandie Ave	Bioretention (No Underdrain)	8,552
491112	Los Angeles	N Vermont Ave	Bioretention (No Underdrain)	439
491112	Los Angeles	Nottingham Ave	Bioretention (No Underdrain)	535
491112	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	2,419
491112	Los Angeles	Palmerston Pl	Bioretention (No Underdrain)	786
491112	Los Angeles	Prospect Ave	Bioretention (No Underdrain)	291
491112	Los Angeles	Romaine St	Bioretention (No Underdrain)	869
491112	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	2,109
491112	Los Angeles	S Alexandria Ave	Bioretention (No Underdrain)	2,067
491112	Los Angeles	S Berendo St	Bioretention (No Underdrain)	134
491112	Los Angeles	S Catalina St	Bioretention (No Underdrain)	104
491112	Los Angeles	S Edgemont St	Bioretention (No Underdrain)	565
491112	Los Angeles	S Kenmore Ave	Bioretention (No Underdrain)	1,808
491112	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	1,551
491112	Los Angeles	S New Hampshire Ave	Bioretention (No Underdrain)	87
491112	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	810
491112	Los Angeles	S Vermont Ave	Bioretention (No Underdrain)	642
491112	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	1,949
491112	Los Angeles	Sunset Blvd	Bioretention (No Underdrain)	3,592
491112	Los Angeles	Virginia Ave	Bioretention (No Underdrain)	735
491112	Los Angeles	W 1st St	Bioretention (No Underdrain)	2,107
491112	Los Angeles	W 2nd St	Bioretention (No Underdrain)	681
491112	Los Angeles	W 3rd St	Bioretention (No Underdrain)	1,097
491112	Los Angeles	W 4th St	Bioretention (No Underdrain)	1,143
491112	Los Angeles	W Sunset Blvd	Bioretention (No Underdrain)	3,592
491112	Los Angeles	Winona Blvd	Bioretention (No Underdrain)	2,948
491113	Los Angeles	(unknown)	Bioretention (No Underdrain)	989
491113	Los Angeles	Alto Oak Dr	Bioretention (No Underdrain)	27
491113	Los Angeles	Barton Ave	Bioretention (No Underdrain)	101
491113	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	5,151
491113	Los Angeles	Briarcliff Rd	Bioretention (No Underdrain)	46
491113	Los Angeles	Canyon Dr	Bioretention (No Underdrain)	27
491113	Los Angeles	Carlton Way	Bioretention (No Underdrain)	2,379
491113	Los Angeles	Clinton St	Bioretention (No Underdrain)	3,113
491113	Los Angeles	Council St	Bioretention (No Underdrain)	2,425
491113	Los Angeles	de Longpre Ave	Bioretention (No Underdrain)	382
491113	Los Angeles	E Live Oak Dr	Bioretention (No Underdrain)	75

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491113	Los Angeles	Elmwood Ave	Bioretention (No Underdrain)	1,393
491113	Los Angeles	Fern Dell Dr	Bioretention (No Underdrain)	746
491113	Los Angeles	Fernwood Ave	Bioretention (No Underdrain)	780
491113	Los Angeles	Flemish Ln	Bioretention (No Underdrain)	384
491113	Los Angeles	Foothill Dr	Bioretention (No Underdrain)	352
491113	Los Angeles	Fountain Ave	Bioretention (No Underdrain)	1,419
491113	Los Angeles	Franklin Ave	Bioretention (No Underdrain)	3,170
491113	Los Angeles	Garfield Pl	Bioretention (No Underdrain)	1,330
491113	Los Angeles	Gilbert Pl	Bioretention (No Underdrain)	331
491113	Los Angeles	Harold Way	Bioretention (No Underdrain)	1,688
491113	Los Angeles	Hill Oak Dr	Bioretention (No Underdrain)	75
491113	Los Angeles	Hobart Pl	Bioretention (No Underdrain)	496
491113	Los Angeles	Hollywood Blvd	Bioretention (No Underdrain)	3,344
491113	Los Angeles	Ingraham St	Bioretention (No Underdrain)	2,460
491113	Los Angeles	Institute Pl	Bioretention (No Underdrain)	420
491113	Los Angeles	la Cresta Ct	Bioretention (No Underdrain)	766
491113	Los Angeles	la Mirada Ave	Bioretention (No Underdrain)	1,127
491113	Los Angeles	Laughin Park Dr	Bioretention (No Underdrain)	37
491113	Los Angeles	Lemon Grove Ave	Bioretention (No Underdrain)	2,126
491113	Los Angeles	Lexington Ave	Bioretention (No Underdrain)	815
491113	Los Angeles	Loma Linda Ave	Bioretention (No Underdrain)	661
491113	Los Angeles	Los Adornos Way	Bioretention (No Underdrain)	202
491113	Los Angeles	Los Bonitos Way	Bioretention (No Underdrain)	14
491113	Los Angeles	Los Caballeros Way	Bioretention (No Underdrain)	140
491113	Los Angeles	Los Diegos Way	Bioretention (No Underdrain)	15
491113	Los Angeles	Los Encantos Way	Bioretention (No Underdrain)	106
491113	Los Angeles	Los Feliz Blvd	Bioretention (No Underdrain)	1,499
491113	Los Angeles	Los Grandes Way	Bioretention (No Underdrain)	20
491113	Los Angeles	Los Hermosos Way	Bioretention (No Underdrain)	69
491113	Los Angeles	Maplewood Ave	Bioretention (No Underdrain)	3,416
491113	Los Angeles	Marathon St	Bioretention (No Underdrain)	1,874
491113	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	2,797
491113	Los Angeles	Melrose Hill St	Bioretention (No Underdrain)	740
491113	Los Angeles	Monroe St	Bioretention (No Underdrain)	473
491113	Los Angeles	Morgan Hill Dr	Bioretention (No Underdrain)	39
491113	Los Angeles	Mountain Oak Dr	Bioretention (No Underdrain)	35
491113	Los Angeles	N Ardmore Ave	Bioretention (No Underdrain)	5,435
491113	Los Angeles	N Gramercy Pl	Bioretention (No Underdrain)	3,367
491113	Los Angeles	N Harvard Blvd	Bioretention (No Underdrain)	7,174
491113	Los Angeles	N Hobart Blvd	Bioretention (No Underdrain)	9,969
491113	Los Angeles	N Irving Blvd	Bioretention (No Underdrain)	53
491113	Los Angeles	N Kingsley Dr	Bioretention (No Underdrain)	5,640
491113	Los Angeles	N Manhattan Pl	Bioretention (No Underdrain)	2,649
491113	Los Angeles	N Mariposa Ave	Bioretention (No Underdrain)	526
491113	Los Angeles	N Normandie Ave	Bioretention (No Underdrain)	2,338
491113	Los Angeles	N Norton Ave	Bioretention (No Underdrain)	1,163
491113	Los Angeles	N Oxford Ave	Bioretention (No Underdrain)	6,913
491113	Los Angeles	N Ridgewood Pl	Bioretention (No Underdrain)	1,966
491113	Los Angeles	N Serrano Ave	Bioretention (No Underdrain)	10,091
491113	Los Angeles	N St Andrews Pl	Bioretention (No Underdrain)	5,985
491113	Los Angeles	N Van Ness Ave	Bioretention (No Underdrain)	1,847
491113	Los Angeles	N Western Ave	Bioretention (No Underdrain)	11,252
491113	Los Angeles	N Wilton Pl	Bioretention (No Underdrain)	4,973
491113	Los Angeles	Normandie Pl	Bioretention (No Underdrain)	1,193
491113	Los Angeles	Oakwood Ave	Bioretention (No Underdrain)	3,949

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491113	Los Angeles	Red Oak Dr	Bioretention (No Underdrain)	253
491113	Los Angeles	Ridge Oak Dr	Bioretention (No Underdrain)	39
491113	Los Angeles	Romaine St	Bioretention (No Underdrain)	2,313
491113	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	3,501
491113	Los Angeles	Russell Ave	Bioretention (No Underdrain)	1,286
491113	Los Angeles	S Ardmore Ave	Bioretention (No Underdrain)	2,915
491113	Los Angeles	S Bronson Ave	Bioretention (No Underdrain)	1,319
491113	Los Angeles	S Gramercy Pl	Bioretention (No Underdrain)	4,128
491113	Los Angeles	S Harvard Blvd	Bioretention (No Underdrain)	4,029
491113	Los Angeles	S Hobart Blvd	Bioretention (No Underdrain)	4,381
491113	Los Angeles	S Irving Blvd	Bioretention (No Underdrain)	318
491113	Los Angeles	S Kingsley Dr	Bioretention (No Underdrain)	4,394
491113	Los Angeles	S Manhattan Pl	Bioretention (No Underdrain)	4,151
491113	Los Angeles	S Mariposa Ave	Bioretention (No Underdrain)	610
491113	Los Angeles	S Normandie Ave	Bioretention (No Underdrain)	1,667
491113	Los Angeles	S Norton Ave	Bioretention (No Underdrain)	4,982
491113	Los Angeles	S Oxford Ave	Bioretention (No Underdrain)	5,123
491113	Los Angeles	S Ridgewood Pl	Bioretention (No Underdrain)	178
491113	Los Angeles	S Serrano Ave	Bioretention (No Underdrain)	5,045
491113	Los Angeles	S St Andrews Pl	Bioretention (No Underdrain)	4,886
491113	Los Angeles	S Van Ness Ave	Bioretention (No Underdrain)	4,131
491113	Los Angeles	S Western Ave	Bioretention (No Underdrain)	4,886
491113	Los Angeles	S Wilton Pl	Bioretention (No Underdrain)	4,707
491113	Los Angeles	Santa Monica Blvd	Bioretention (No Underdrain)	829
491113	Los Angeles	Serrano Pl	Bioretention (No Underdrain)	130
491113	Los Angeles	Sierra Vista Ave	Bioretention (No Underdrain)	412
491113	Los Angeles	Sunset Blvd	Bioretention (No Underdrain)	2,913
491113	Los Angeles	Taft Ave	Bioretention (No Underdrain)	2,145
491113	Los Angeles	Verde Oak Dr	Bioretention (No Underdrain)	69
491113	Los Angeles	Virginia Ave	Bioretention (No Underdrain)	1,053
491113	Los Angeles	W 1st St	Bioretention (No Underdrain)	6,004
491113	Los Angeles	W 2nd St	Bioretention (No Underdrain)	5,928
491113	Los Angeles	W 3rd St	Bioretention (No Underdrain)	5,334
491113	Los Angeles	W 4th St	Bioretention (No Underdrain)	5,475
491113	Los Angeles	W 5th St	Bioretention (No Underdrain)	4,849
491113	Los Angeles	W 6th St	Bioretention (No Underdrain)	5,024
491113	Los Angeles	W 7th St	Bioretention (No Underdrain)	1,432
491113	Los Angeles	W Lexington Ave	Bioretention (No Underdrain)	103
491113	Los Angeles	W Live Oak Dr	Bioretention (No Underdrain)	80
491113	Los Angeles	W Los Feliz Blvd	Bioretention (No Underdrain)	231
491113	Los Angeles	W Sunset Blvd	Bioretention (No Underdrain)	2,913
491113	Los Angeles	Westminster Ave	Bioretention (No Underdrain)	1,321
491113	Los Angeles	Wild Oak Dr	Bioretention (No Underdrain)	13
491113	Los Angeles	Wilshire Blvd	Bioretention (No Underdrain)	4,787
491113	Los Angeles	Wilton Dr	Bioretention (No Underdrain)	890
491114	Los Angeles	(unknown)	Bioretention (No Underdrain)	85
491114	Los Angeles	Barton Ave	Bioretention (No Underdrain)	1,281
491114	Los Angeles	Beverly Blvd	Bioretention (No Underdrain)	530
491114	Los Angeles	Canyon Dr	Bioretention (No Underdrain)	255
491114	Los Angeles	Carlton Way	Bioretention (No Underdrain)	50
491114	Los Angeles	Clinton St	Bioretention (No Underdrain)	1,861
491114	Los Angeles	de Longpre Ave	Bioretention (No Underdrain)	984
491114	Los Angeles	Eleanor Ave	Bioretention (No Underdrain)	52
491114	Los Angeles	Elmwood Ave	Bioretention (No Underdrain)	1,244
491114	Los Angeles	Fernwood Ave	Bioretention (No Underdrain)	736

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491114	Los Angeles	Fountain Ave	Bioretention (No Underdrain)	1,411
491114	Los Angeles	Gregory Ave	Bioretention (No Underdrain)	56
491114	Los Angeles	Harold Way	Bioretention (No Underdrain)	533
491114	Los Angeles	la Cresta Ct	Bioretention (No Underdrain)	54
491114	Los Angeles	la Mirada Ave	Bioretention (No Underdrain)	2,266
491114	Los Angeles	la Vista Ct	Bioretention (No Underdrain)	329
491114	Los Angeles	Lemon Grove Ave	Bioretention (No Underdrain)	1,892
491114	Los Angeles	Lexington Ave	Bioretention (No Underdrain)	2,395
491114	Los Angeles	Maplewood Ave	Bioretention (No Underdrain)	904
491114	Los Angeles	Marathon St	Bioretention (No Underdrain)	275
491114	Los Angeles	Melrose Ave	Bioretention (No Underdrain)	2,607
491114	Los Angeles	Monroe St	Bioretention (No Underdrain)	897
491114	Los Angeles	N Bronson Ave	Bioretention (No Underdrain)	5,571
491114	Los Angeles	N Gower St	Bioretention (No Underdrain)	1,844
491114	Los Angeles	N Gramercy Pl	Bioretention (No Underdrain)	1,272
491114	Los Angeles	N Irving Blvd	Bioretention (No Underdrain)	1,662
491114	Los Angeles	N Norton Ave	Bioretention (No Underdrain)	1,978
491114	Los Angeles	N Ridgewood Pl	Bioretention (No Underdrain)	2,762
491114	Los Angeles	N St Andrews Pl	Bioretention (No Underdrain)	2,780
491114	Los Angeles	N Van Ness Ave	Bioretention (No Underdrain)	7,688
491114	Los Angeles	N Wilton Pl	Bioretention (No Underdrain)	5,954
491114	Los Angeles	N Windsor Blvd	Bioretention (No Underdrain)	83
491114	Los Angeles	Raleigh St	Bioretention (No Underdrain)	660
491114	Los Angeles	Romaine St	Bioretention (No Underdrain)	1,257
491114	Los Angeles	Rosewood Ave	Bioretention (No Underdrain)	913
491114	Los Angeles	Sierra Vista Ave	Bioretention (No Underdrain)	1,215
491114	Los Angeles	Taft Ave	Bioretention (No Underdrain)	140
491114	Los Angeles	Valentino Pl	Bioretention (No Underdrain)	44
491114	Los Angeles	Virginia Ave	Bioretention (No Underdrain)	2,529
491114	Los Angeles	Willoughby Ave	Bioretention (No Underdrain)	55
491114	Los Angeles	Windsor Blvd	Bioretention (No Underdrain)	39
491175	Los Angeles	(unknown)	Bioretention (No Underdrain)	1,145
491175	Los Angeles	63rd Ave	Bioretention (No Underdrain)	185
491175	Los Angeles	66th Ave	Bioretention (No Underdrain)	9
491175	Los Angeles	Agnew Ave	Bioretention (No Underdrain)	7
491175	Los Angeles	Alberta Dr	Bioretention (No Underdrain)	1,297
491175	Los Angeles	Alla Rd	Bioretention (No Underdrain)	1,345
491175	Los Angeles	Altamor Dr	Bioretention (No Underdrain)	593
491175	Los Angeles	Altavan Ave	Bioretention (No Underdrain)	2,290
491175	Los Angeles	Andover Ln	Bioretention (No Underdrain)	440
491175	Los Angeles	Aneta St	Bioretention (No Underdrain)	2,306
491175	Los Angeles	Artisans Way	Bioretention (No Underdrain)	66
491175	Los Angeles	Bay St	Bioretention (No Underdrain)	1,280
491175	Los Angeles	Beatrice St	Bioretention (No Underdrain)	2,783
491175	Los Angeles	Beethoven St	Bioretention (No Underdrain)	266
491175	Los Angeles	Belton Dr	Bioretention (No Underdrain)	1,163
491175	Los Angeles	Berger Ave	Bioretention (No Underdrain)	350
491175	Los Angeles	Billowvista Dr	Bioretention (No Underdrain)	800
491175	Los Angeles	Bluff Creek Dr	Bioretention (No Underdrain)	604
491175	Los Angeles	Brisa	Bioretention (No Underdrain)	590
491175	Los Angeles	Cabora Dr	Bioretention (No Underdrain)	311
491175	Los Angeles	Calabar Ave	Bioretention (No Underdrain)	395
491175	Los Angeles	Campion Dr	Bioretention (No Underdrain)	1,626
491175	Los Angeles	Celedon Creek	Bioretention (No Underdrain)	904
491175	Los Angeles	Chase Ave	Bioretention (No Underdrain)	51

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491175	Los Angeles	Colegio Dr	Bioretention (No Underdrain)	1,035
491175	Los Angeles	Concert Park Dr	Bioretention (No Underdrain)	453
491175	Los Angeles	Coral Tree Pl	Bioretention (No Underdrain)	903
491175	Los Angeles	Cowan Ave	Bioretention (No Underdrain)	909
491175	Los Angeles	Culver Pl	Bioretention (No Underdrain)	26
491175	Los Angeles	Delgany Ave	Bioretention (No Underdrain)	1,519
491175	Los Angeles	Denrock Ave	Bioretention (No Underdrain)	1,238
491175	Los Angeles	Dunbarton Ave	Bioretention (No Underdrain)	1,106
491175	Los Angeles	Ea Way	Bioretention (No Underdrain)	590
491175	Los Angeles	Falmouth Ave	Bioretention (No Underdrain)	1,044
491175	Los Angeles	Fifth St	Bioretention (No Underdrain)	882
491175	Los Angeles	Firebrand St	Bioretention (No Underdrain)	1,422
491175	Los Angeles	Fordham Rd	Bioretention (No Underdrain)	1,796
491175	Los Angeles	Fountain Park Dr	Bioretention (No Underdrain)	331
491175	Los Angeles	Gonzaga Ave	Bioretention (No Underdrain)	788
491175	Los Angeles	Grosvenor Blvd	Bioretention (No Underdrain)	602
491175	Los Angeles	Gulana Ave	Bioretention (No Underdrain)	884
491175	Los Angeles	Hammack St	Bioretention (No Underdrain)	1,919
491175	Los Angeles	Hedding St	Bioretention (No Underdrain)	503
491175	Los Angeles	Henefer Ave	Bioretention (No Underdrain)	1,025
491175	Los Angeles	Hughes Way	Bioretention (No Underdrain)	2,772
491175	Los Angeles	Hulbert Ave	Bioretention (No Underdrain)	533
491175	Los Angeles	Inglewood Blvd	Bioretention (No Underdrain)	1,815
491175	Los Angeles	Jefferson Blvd	Bioretention (No Underdrain)	2,958
491175	Los Angeles	Juniette St	Bioretention (No Underdrain)	2,939
491175	Los Angeles	Kentwood Bluffs Dr	Bioretention (No Underdrain)	243
491175	Los Angeles	Kentwood Ct	Bioretention (No Underdrain)	353
491175	Los Angeles	Kenyon Ave	Bioretention (No Underdrain)	1,326
491175	Los Angeles	Kiyot Way	Bioretention (No Underdrain)	13
491175	Los Angeles	Lucile St	Bioretention (No Underdrain)	2,553
491175	Los Angeles	Major St	Bioretention (No Underdrain)	522
491175	Los Angeles	Margaret Ave	Bioretention (No Underdrain)	1,248
491175	Los Angeles	McConnell Ave	Bioretention (No Underdrain)	2,653
491175	Los Angeles	Mesmer Ave	Bioretention (No Underdrain)	1,922
491175	Los Angeles	Nardian Way	Bioretention (No Underdrain)	1,737
491175	Los Angeles	Nicholson St	Bioretention (No Underdrain)	10
491175	Los Angeles	Pershing Dr	Bioretention (No Underdrain)	399
491175	Los Angeles	Playa Vista Dr	Bioretention (No Underdrain)	1,224
491175	Los Angeles	Randall St	Bioretention (No Underdrain)	1,818
491175	Los Angeles	Rayford Dr	Bioretention (No Underdrain)	938
491175	Los Angeles	Rees St	Bioretention (No Underdrain)	852
491175	Los Angeles	Riggs Pl	Bioretention (No Underdrain)	4
491175	Los Angeles	S Bluff Trail Rd	Bioretention (No Underdrain)	101
491175	Los Angeles	S Campus Center Dr	Bioretention (No Underdrain)	579
491175	Los Angeles	S Centinela Ave	Bioretention (No Underdrain)	21
491175	Los Angeles	S Concert Park Dr	Bioretention (No Underdrain)	453
491175	Los Angeles	S Crescent Park E	Bioretention (No Underdrain)	239
491175	Los Angeles	S Crescent Park W	Bioretention (No Underdrain)	90
491175	Los Angeles	S Dawn Creek	Bioretention (No Underdrain)	980
491175	Los Angeles	S Earldom Ave	Bioretention (No Underdrain)	14
491175	Los Angeles	S Falmouth Ave	Bioretention (No Underdrain)	951
491175	Los Angeles	S Hastings Ave	Bioretention (No Underdrain)	31
491175	Los Angeles	S Hulbert Ave	Bioretention (No Underdrain)	255
491175	Los Angeles	S Kiyot Way	Bioretention (No Underdrain)	908
491175	Los Angeles	S para Way	Bioretention (No Underdrain)	981

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
491175	Los Angeles	S Playa Vista Dr	Bioretention (No Underdrain)	1,805
491175	Los Angeles	S Seabluff Dr	Bioretention (No Underdrain)	907
491175	Los Angeles	S Seawalk Dr	Bioretention (No Underdrain)	1,463
491175	Los Angeles	S Westlawn Ave	Bioretention (No Underdrain)	737
491175	Los Angeles	Saran Dr	Bioretention (No Underdrain)	764
491175	Los Angeles	Second St	Bioretention (No Underdrain)	98
491175	Los Angeles	Sinaloa Rd	Bioretention (No Underdrain)	83
491175	Los Angeles	Stewart Ave	Bioretention (No Underdrain)	2,034
491175	Los Angeles	Sunnysea Dr	Bioretention (No Underdrain)	331
491175	Los Angeles	Teale St	Bioretention (No Underdrain)	853
491175	Los Angeles	Third St	Bioretention (No Underdrain)	384
491175	Los Angeles	Tuscany Ave	Bioretention (No Underdrain)	1,217
491175	Los Angeles	Veragua Dr	Bioretention (No Underdrain)	54
491175	Los Angeles	Village Dr	Bioretention (No Underdrain)	146
491175	Los Angeles	Vis del Mar	Bioretention (No Underdrain)	625
491175	Los Angeles	W 77th St	Bioretention (No Underdrain)	759
491175	Los Angeles	W 78th St	Bioretention (No Underdrain)	785
491175	Los Angeles	W 79th St	Bioretention (No Underdrain)	1,740
491175	Los Angeles	W 80th St	Bioretention (No Underdrain)	2,256
491175	Los Angeles	W 81st St	Bioretention (No Underdrain)	1,565
491175	Los Angeles	W 82nd St	Bioretention (No Underdrain)	532
491175	Los Angeles	W 83rd St	Bioretention (No Underdrain)	4,560
491175	Los Angeles	W 84th St	Bioretention (No Underdrain)	160
491175	Los Angeles	W 85th St	Bioretention (No Underdrain)	411
491175	Los Angeles	W Agustin Pl	Bioretention (No Underdrain)	666
491175	Los Angeles	W Bay Park Dr	Bioretention (No Underdrain)	777
491175	Los Angeles	W Bluff Creek Dr	Bioretention (No Underdrain)	5,273
491175	Los Angeles	W Centinela Ave	Bioretention (No Underdrain)	2,707
491175	Los Angeles	W Coastal View Dr	Bioretention (No Underdrain)	513
491175	Los Angeles	W Discovery Creek	Bioretention (No Underdrain)	1,900
491175	Los Angeles	W Jefferson Blvd	Bioretention (No Underdrain)	17,488
491175	Los Angeles	W Manchester Ave	Bioretention (No Underdrain)	5,467
491175	Los Angeles	W Pacific Prom	Bioretention (No Underdrain)	123
491175	Los Angeles	W Pacific Promenade	Bioretention (No Underdrain)	1,919
491175	Los Angeles	W Runway Rd	Bioretention (No Underdrain)	2,248
491175	Los Angeles	W Shore Cliff Dr	Bioretention (No Underdrain)	27
491175	Los Angeles	W Villosa Pl	Bioretention (No Underdrain)	668
491175	Los Angeles	Westlawn Ave	Bioretention (No Underdrain)	1,742
491175	Los Angeles	Wynkoop St	Bioretention (No Underdrain)	1,046
491175	Los Angeles	Zayanta Dr	Bioretention (No Underdrain)	872
491175	Los Angeles	Zitola Ter	Bioretention (No Underdrain)	53
751032	Santa Monica	(unknown)	Bioretention (No Underdrain)	11,384
751032	Santa Monica	27th St	Bioretention (No Underdrain)	4
751032	Santa Monica	29th St	Bioretention (No Underdrain)	625
751032	Santa Monica	30th St	Bioretention (No Underdrain)	1,230
751032	Santa Monica	31st St	Bioretention (No Underdrain)	1,523
751032	Santa Monica	32nd St	Bioretention (No Underdrain)	1,709
751032	Santa Monica	33rd St	Bioretention (No Underdrain)	2,088
751032	Santa Monica	34th St	Bioretention (No Underdrain)	2,389
751032	Santa Monica	Broadway	Bioretention (No Underdrain)	40
751032	Santa Monica	Broadway St	Bioretention (No Underdrain)	40
751032	Santa Monica	Centinela Ave	Bioretention (No Underdrain)	4
751032	Santa Monica	Colorado Ave	Bioretention (No Underdrain)	86
751032	Santa Monica	Delaware Ave	Bioretention (No Underdrain)	2,267
751032	Santa Monica	Dorchester Ave	Bioretention (No Underdrain)	1,153

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
751032	Santa Monica	Exposition Blvd	Bioretention (No Underdrain)	2,407
751032	Santa Monica	Kansas Ave	Bioretention (No Underdrain)	543
751032	Santa Monica	Nebraska Ave	Bioretention (No Underdrain)	83
751032	Santa Monica	Ocean Park Blvd	Bioretention (No Underdrain)	729
751032	Santa Monica	Olympic Blvd	Bioretention (No Underdrain)	806
751032	Santa Monica	Pearl St	Bioretention (No Underdrain)	1,935
751032	Santa Monica	Pennsylvania Ave	Bioretention (No Underdrain)	80
751032	Santa Monica	Pico Blvd	Bioretention (No Underdrain)	1,655
751032	Santa Monica	S Centinela Ave	Bioretention (No Underdrain)	471
751032	Santa Monica	Stewart St	Bioretention (No Underdrain)	756
751032	Santa Monica	Urban Ave	Bioretention (No Underdrain)	1,517
751032	Santa Monica	Virginia Ave	Bioretention (No Underdrain)	981
751032	Santa Monica	W Olympic Blvd	Bioretention (No Underdrain)	460
751032	Santa Monica	Warwick Ave	Bioretention (No Underdrain)	659
751032	Santa Monica	Yorkshire Ave	Bioretention (No Underdrain)	1,181
831014	Unincorporated	Sophomore Dr	Bioretention (No Underdrain)	36
831015	Unincorporated	(unknown)	Bioretention (No Underdrain)	400
831015	Unincorporated	A St	Bioretention (No Underdrain)	34
831015	Unincorporated	C St	Bioretention (No Underdrain)	57
831015	Unincorporated	F St	Bioretention (No Underdrain)	29
831015	Unincorporated	Freshman Dr	Bioretention (No Underdrain)	2,430
831015	Unincorporated	Sophomore Dr	Bioretention (No Underdrain)	643
831015	Unincorporated	Stocker St	Bioretention (No Underdrain)	1,123
831023	Unincorporated	(unknown)	Bioretention (No Underdrain)	20
831023	Unincorporated	Grosvenor Blvd	Bioretention (No Underdrain)	27
831023	Unincorporated	S Centinela Ave	Bioretention (No Underdrain)	14
831025	Unincorporated	(unknown)	Bioretention (No Underdrain)	2,434
831025	Unincorporated	51st St	Bioretention (No Underdrain)	1,204
831025	Unincorporated	55th St	Bioretention (No Underdrain)	199
831025	Unincorporated	Allegheny Ct	Bioretention (No Underdrain)	152
831025	Unincorporated	Bedford Ave	Bioretention (No Underdrain)	2,423
831025	Unincorporated	Chariton Ave	Bioretention (No Underdrain)	1,519
831025	Unincorporated	Esterina Way	Bioretention (No Underdrain)	14
831025	Unincorporated	Hill Rd	Bioretention (No Underdrain)	40
831025	Unincorporated	Ladera Crest Dr	Bioretention (No Underdrain)	1,204
831025	Unincorporated	Marjan Ave	Bioretention (No Underdrain)	558
831025	Unincorporated	Pendleton Ct	Bioretention (No Underdrain)	52
831025	Unincorporated	Reynier Ave	Bioretention (No Underdrain)	1,202
831025	Unincorporated	S Chariton Ave	Bioretention (No Underdrain)	149
831025	Unincorporated	S Corning Ave	Bioretention (No Underdrain)	3,183
831025	Unincorporated	S Garth Ave	Bioretention (No Underdrain)	2,658
831025	Unincorporated	S Holt Ave	Bioretention (No Underdrain)	2,424
831025	Unincorporated	S Sherbourne Dr	Bioretention (No Underdrain)	2,708
831025	Unincorporated	Senford Ave	Bioretention (No Underdrain)	1,832
831025	Unincorporated	Shenandoah Ave	Bioretention (No Underdrain)	3,700
831025	Unincorporated	Slauson	Bioretention (No Underdrain)	1,882
831025	Unincorporated	W 54th St	Bioretention (No Underdrain)	45
831025	Unincorporated	W 55th St	Bioretention (No Underdrain)	2,094
831025	Unincorporated	W 57th St	Bioretention (No Underdrain)	1,869
831025	Unincorporated	W Slauson Ave	Bioretention (No Underdrain)	1,515
831028	Unincorporated	(unknown)	Bioretention (No Underdrain)	13,789
831028	Unincorporated	51st St	Bioretention (No Underdrain)	172
831028	Unincorporated	59th St	Bioretention (No Underdrain)	270
831028	Unincorporated	Acacia St	Bioretention (No Underdrain)	1,102
831028	Unincorporated	Alvern St	Bioretention (No Underdrain)	683

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
831028	Unincorporated	Aly	Bioretention (No Underdrain)	33
831028	Unincorporated	Bedford Ave	Bioretention (No Underdrain)	3,172
831028	Unincorporated	Chariton Ave	Bioretention (No Underdrain)	1,164
831028	Unincorporated	Condon Ave	Bioretention (No Underdrain)	98
831028	Unincorporated	Damask Ave	Bioretention (No Underdrain)	1,263
831028	Unincorporated	Fairview Blvd	Bioretention (No Underdrain)	978
831028	Unincorporated	Flight Ave	Bioretention (No Underdrain)	164
831028	Unincorporated	Flores Ave	Bioretention (No Underdrain)	1,044
831028	Unincorporated	Goldleaf Cir	Bioretention (No Underdrain)	136
831028	Unincorporated	la Tijera Blvd	Bioretention (No Underdrain)	1,795
831028	Unincorporated	Ladera Crest Dr	Bioretention (No Underdrain)	172
831028	Unincorporated	Laurelwood Dr	Bioretention (No Underdrain)	30
831028	Unincorporated	Morley Ave	Bioretention (No Underdrain)	382
831028	Unincorporated	Mosley Ave	Bioretention (No Underdrain)	679
831028	Unincorporated	Radlock Ave	Bioretention (No Underdrain)	1,425
831028	Unincorporated	S Chariton Ave	Bioretention (No Underdrain)	1,936
831028	Unincorporated	S Corning Ave	Bioretention (No Underdrain)	1,889
831028	Unincorporated	S Croft Ave	Bioretention (No Underdrain)	1,294
831028	Unincorporated	S Fairfax Ave	Bioretention (No Underdrain)	2,063
831028	Unincorporated	S Garth Ave	Bioretention (No Underdrain)	2,823
831028	Unincorporated	S Halm Ave	Bioretention (No Underdrain)	3,919
831028	Unincorporated	S Holt Ave	Bioretention (No Underdrain)	3,416
831028	Unincorporated	S Kings Rd	Bioretention (No Underdrain)	1,659
831028	Unincorporated	S la Cienega Blvd	Bioretention (No Underdrain)	8,322
831028	Unincorporated	S la Tijera Blvd	Bioretention (No Underdrain)	1,795
831028	Unincorporated	S Laurelwood Dr	Bioretention (No Underdrain)	30
831028	Unincorporated	S Le Doux Rd	Bioretention (No Underdrain)	1,645
831028	Unincorporated	S Orlando Ave	Bioretention (No Underdrain)	658
831028	Unincorporated	S Senford Ave	Bioretention (No Underdrain)	260
831028	Unincorporated	S Sherbourne Dr	Bioretention (No Underdrain)	3,178
831028	Unincorporated	S Springpark Ave	Bioretention (No Underdrain)	2,074
831028	Unincorporated	S Wooster Ave	Bioretention (No Underdrain)	2,465
831028	Unincorporated	Senford Ave	Bioretention (No Underdrain)	1,099
831028	Unincorporated	Shenandoah Ave	Bioretention (No Underdrain)	3,831
831028	Unincorporated	Slauson	Bioretention (No Underdrain)	654
831028	Unincorporated	Slauson Ave	Bioretention (No Underdrain)	742
831028	Unincorporated	Stocker St	Bioretention (No Underdrain)	565
831028	Unincorporated	Unnamed Alley Running From East To West 3 Blocks	Bioretention (No Underdrain)	326
831028	Unincorporated	W 54th St	Bioretention (No Underdrain)	75
831028	Unincorporated	W 55th St	Bioretention (No Underdrain)	4
831028	Unincorporated	W 58th Pl	Bioretention (No Underdrain)	1,589
831028	Unincorporated	W 59th St	Bioretention (No Underdrain)	1,669
831028	Unincorporated	W 61st St	Bioretention (No Underdrain)	1,180
831028	Unincorporated	W 62nd St	Bioretention (No Underdrain)	3,172
831028	Unincorporated	W 63rd St	Bioretention (No Underdrain)	1,802
831028	Unincorporated	W 64th St	Bioretention (No Underdrain)	2,580
831028	Unincorporated	W Centinela Ave	Bioretention (No Underdrain)	4,300
831028	Unincorporated	W Slauson Ave	Bioretention (No Underdrain)	2,953
831028	Unincorporated	Wooster Ave	Bioretention (No Underdrain)	4,801
831030	Unincorporated	(unknown)	Bioretention (No Underdrain)	9,269
831030	Unincorporated	59th St	Bioretention (No Underdrain)	89
831030	Unincorporated	Adale Pl	Bioretention (No Underdrain)	92
831030	Unincorporated	Alviso Ave	Bioretention (No Underdrain)	1,310
831030	Unincorporated	Angeles Vista Blvd	Bioretention (No Underdrain)	2,865
831030	Unincorporated	Arch Crest Dr	Bioretention (No Underdrain)	877

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
831030	Unincorporated	Bradna Dr	Bioretention (No Underdrain)	1,300
831030	Unincorporated	Brea Crest Dr	Bioretention (No Underdrain)	91
831030	Unincorporated	Charlene Dr	Bioretention (No Underdrain)	955
831030	Unincorporated	Chasar Pl	Bioretention (No Underdrain)	199
831030	Unincorporated	Condon Ave	Bioretention (No Underdrain)	1,269
831030	Unincorporated	Dawn View Pl	Bioretention (No Underdrain)	216
831030	Unincorporated	Deane Ave	Bioretention (No Underdrain)	168
831030	Unincorporated	Edgemar Ave	Bioretention (No Underdrain)	288
831030	Unincorporated	Harcross Dr	Bioretention (No Underdrain)	872
831030	Unincorporated	Heatherdale Dr	Bioretention (No Underdrain)	637
831030	Unincorporated	Inadale Ave	Bioretention (No Underdrain)	2,654
831030	Unincorporated	Inaglen Way	Bioretention (No Underdrain)	262
831030	Unincorporated	Keniston Ave	Bioretention (No Underdrain)	163
831030	Unincorporated	la Brea Ave	Bioretention (No Underdrain)	3,526
831030	Unincorporated	Ladera Park Ave	Bioretention (No Underdrain)	1,471
831030	Unincorporated	Marburn Ave	Bioretention (No Underdrain)	2,751
831030	Unincorporated	Marvale Dr	Bioretention (No Underdrain)	212
831030	Unincorporated	Maymont Dr	Bioretention (No Underdrain)	1,441
831030	Unincorporated	Mioland Dr	Bioretention (No Underdrain)	512
831030	Unincorporated	Monteith Dr	Bioretention (No Underdrain)	1,240
831030	Unincorporated	Mount Vernon Dr	Bioretention (No Underdrain)	760
831030	Unincorporated	Northridge Dr	Bioretention (No Underdrain)	3,950
831030	Unincorporated	Onacrest Dr	Bioretention (No Underdrain)	2,477
831030	Unincorporated	Onaknoll Ave	Bioretention (No Underdrain)	1,808
831030	Unincorporated	Orchid Dr	Bioretention (No Underdrain)	1,042
831030	Unincorporated	Overdale Dr	Bioretention (No Underdrain)	1,987
831030	Unincorporated	Overhill Dr	Bioretention (No Underdrain)	4,823
831030	Unincorporated	Parkglen Ave	Bioretention (No Underdrain)	3,145
831030	Unincorporated	S Citrus Ave	Bioretention (No Underdrain)	1,360
831030	Unincorporated	S Fairfax Ave	Bioretention (No Underdrain)	3,770
831030	Unincorporated	S la Brea Ave	Bioretention (No Underdrain)	3,526
831030	Unincorporated	S Mansfield Ave	Bioretention (No Underdrain)	472
831030	Unincorporated	S Rimpau Blvd	Bioretention (No Underdrain)	166
831030	Unincorporated	S Verdun Ave	Bioretention (No Underdrain)	3,555
831030	Unincorporated	Secrest Dr	Bioretention (No Underdrain)	503
831030	Unincorporated	Southridge Ave	Bioretention (No Underdrain)	3,502
831030	Unincorporated	Springdale Dr	Bioretention (No Underdrain)	755
831030	Unincorporated	Springhill Pl	Bioretention (No Underdrain)	101
831030	Unincorporated	Stocker St	Bioretention (No Underdrain)	870
831030	Unincorporated	Summerhill Dr	Bioretention (No Underdrain)	337
831030	Unincorporated	Valdina Pl	Bioretention (No Underdrain)	132
831030	Unincorporated	Valley Glen Way	Bioretention (No Underdrain)	504
831030	Unincorporated	Valley Ridge Ave	Bioretention (No Underdrain)	3,702
831030	Unincorporated	Valleydale Ave	Bioretention (No Underdrain)	799
831030	Unincorporated	W 54th St	Bioretention (No Underdrain)	170
831030	Unincorporated	W 57th St	Bioretention (No Underdrain)	815
831030	Unincorporated	W 58th Pl	Bioretention (No Underdrain)	471
831030	Unincorporated	W 59th Pl	Bioretention (No Underdrain)	617
831030	Unincorporated	W 59th St	Bioretention (No Underdrain)	796
831030	Unincorporated	W 60th St	Bioretention (No Underdrain)	938
831030	Unincorporated	W 61st St	Bioretention (No Underdrain)	876
831030	Unincorporated	W 62nd St	Bioretention (No Underdrain)	2,188
831030	Unincorporated	W Mount Vernon Dr	Bioretention (No Underdrain)	760
831030	Unincorporated	W Slauson Ave	Bioretention (No Underdrain)	3,103
831030	Unincorporated	Whelan Pl	Bioretention (No Underdrain)	249

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
831067	Unincorporated	(unknown)	Bioretention (No Underdrain)	7,946
831067	Unincorporated	Addington Way	Bioretention (No Underdrain)	253
831067	Unincorporated	Angeles Vista Blvd	Bioretention (No Underdrain)	6,459
831067	Unincorporated	Athenian Way	Bioretention (No Underdrain)	446
831067	Unincorporated	Aureola Blvd	Bioretention (No Underdrain)	526
831067	Unincorporated	Brynhurst Ave	Bioretention (No Underdrain)	1,103
831067	Unincorporated	Chanson Dr	Bioretention (No Underdrain)	303
831067	Unincorporated	Chesley Ave	Bioretention (No Underdrain)	784
831067	Unincorporated	Circle View Blvd	Bioretention (No Underdrain)	903
831067	Unincorporated	Crestway Dr	Bioretention (No Underdrain)	811
831067	Unincorporated	Crestway Pl	Bioretention (No Underdrain)	609
831067	Unincorporated	Crestwold Ave	Bioretention (No Underdrain)	716
831067	Unincorporated	Deane Ave	Bioretention (No Underdrain)	1,421
831067	Unincorporated	Don Felipe Dr	Bioretention (No Underdrain)	47
831067	Unincorporated	Don Tomaso Dr	Bioretention (No Underdrain)	180
831067	Unincorporated	Eileen Ave	Bioretention (No Underdrain)	2
831067	Unincorporated	Enoro Dr	Bioretention (No Underdrain)	1,431
831067	Unincorporated	Escalon Ave	Bioretention (No Underdrain)	2,072
831067	Unincorporated	Fairland Blvd	Bioretention (No Underdrain)	473
831067	Unincorporated	Fairway Blvd	Bioretention (No Underdrain)	4,049
831067	Unincorporated	Floresta Ave	Bioretention (No Underdrain)	977
831067	Unincorporated	Floresta Way	Bioretention (No Underdrain)	977
831067	Unincorporated	Hillcrest Dr	Bioretention (No Underdrain)	518
831067	Unincorporated	Homeland Dr	Bioretention (No Underdrain)	1,154
831067	Unincorporated	Homeway Dr	Bioretention (No Underdrain)	370
831067	Unincorporated	Inadale Ave	Bioretention (No Underdrain)	78
831067	Unincorporated	Keniston Ave	Bioretention (No Underdrain)	2,024
831067	Unincorporated	Kenway Ave	Bioretention (No Underdrain)	1,317
831067	Unincorporated	Knoll Crest Ave	Bioretention (No Underdrain)	471
831067	Unincorporated	la Brea Ave	Bioretention (No Underdrain)	66
831067	Unincorporated	Lorado Way	Bioretention (No Underdrain)	1,608
831067	Unincorporated	Monteith Dr	Bioretention (No Underdrain)	1,828
831067	Unincorporated	Mount Vernon Dr	Bioretention (No Underdrain)	6,326
831067	Unincorporated	Mullen Pl	Bioretention (No Underdrain)	392
831067	Unincorporated	Northland Dr	Bioretention (No Underdrain)	721
831067	Unincorporated	Northridge Dr	Bioretention (No Underdrain)	36
831067	Unincorporated	Olympiad Dr	Bioretention (No Underdrain)	6,454
831067	Unincorporated	Orinda Ave	Bioretention (No Underdrain)	1,221
831067	Unincorporated	Overhill Dr	Bioretention (No Underdrain)	345
831067	Unincorporated	Palmero Blvd	Bioretention (No Underdrain)	927
831067	Unincorporated	Parklen Ave	Bioretention (No Underdrain)	84
831067	Unincorporated	Presidio Dr	Bioretention (No Underdrain)	2,928
831067	Unincorporated	S Harcourt Ave	Bioretention (No Underdrain)	730
831067	Unincorporated	S la Brea Ave	Bioretention (No Underdrain)	66
831067	Unincorporated	S la Cienega Blvd	Bioretention (No Underdrain)	1,699
831067	Unincorporated	S Mullen Ave	Bioretention (No Underdrain)	2,871
831067	Unincorporated	S Rimpau Blvd	Bioretention (No Underdrain)	905
831067	Unincorporated	S Verdun Ave	Bioretention (No Underdrain)	81
831067	Unincorporated	S Victoria Ave	Bioretention (No Underdrain)	4,472
831067	Unincorporated	Southridge Ave	Bioretention (No Underdrain)	98
831067	Unincorporated	Stocker St	Bioretention (No Underdrain)	5,153
831067	Unincorporated	Valley Ridge Ave	Bioretention (No Underdrain)	1,834
831067	Unincorporated	Vista de Oro Ave	Bioretention (No Underdrain)	1,291
831067	Unincorporated	W 48th St	Bioretention (No Underdrain)	665
831067	Unincorporated	W 52nd St	Bioretention (No Underdrain)	470

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
831067	Unincorporated	W 54th St	Bioretention (No Underdrain)	1,801
831067	Unincorporated	W Don Lorenzo Dr	Bioretention (No Underdrain)	45
831067	Unincorporated	W Don Quixote Dr	Bioretention (No Underdrain)	31
831067	Unincorporated	W Mount Vernon Dr	Bioretention (No Underdrain)	6,326
831067	Unincorporated	W Vernon Ave	Bioretention (No Underdrain)	238
831067	Unincorporated	West Blvd	Bioretention (No Underdrain)	684
831067	Unincorporated	Westmount Ave	Bioretention (No Underdrain)	827
831069	Unincorporated	(unknown)	Bioretention (No Underdrain)	139
831080	Unincorporated	(unknown)	Bioretention (No Underdrain)	3,138
831080	Unincorporated	Alviso Ave	Bioretention (No Underdrain)	11
831080	Unincorporated	Deane Ave	Bioretention (No Underdrain)	1,301
831080	Unincorporated	Eileen Ave	Bioretention (No Underdrain)	1,319
831080	Unincorporated	Keniston Ave	Bioretention (No Underdrain)	1,502
831080	Unincorporated	S Harcourt Ave	Bioretention (No Underdrain)	1,477
831080	Unincorporated	S Mullen Ave	Bioretention (No Underdrain)	1,469
831080	Unincorporated	S Rimpau Blvd	Bioretention (No Underdrain)	1,490
831080	Unincorporated	W 54th St	Bioretention (No Underdrain)	198
831080	Unincorporated	W 57th St	Bioretention (No Underdrain)	2,009
831080	Unincorporated	W Slauson Ave	Bioretention (No Underdrain)	1,429
831088	Unincorporated	Genesee Ave	Bioretention (No Underdrain)	2
831175	Unincorporated	(unknown)	Bioretention (No Underdrain)	52
831175	Unincorporated	Alberta Dr	Bioretention (No Underdrain)	31
831175	Unincorporated	Aneta St	Bioretention (No Underdrain)	411
831175	Unincorporated	Beatrice St	Bioretention (No Underdrain)	892
831175	Unincorporated	Grosvenor Blvd	Bioretention (No Underdrain)	931
831175	Unincorporated	Hammack St	Bioretention (No Underdrain)	563
831175	Unincorporated	Juniette St	Bioretention (No Underdrain)	321
831175	Unincorporated	Lucile St	Bioretention (No Underdrain)	838
831175	Unincorporated	S Centinela Ave	Bioretention (No Underdrain)	1,770
831175	Unincorporated	W Jefferson Blvd	Bioretention (No Underdrain)	309
871088	West Hollywood	(unknown)	Bioretention (No Underdrain)	6,820
871088	West Hollywood	Fountain Ave	Bioretention (No Underdrain)	6,373
871088	West Hollywood	Greenacre Ave	Bioretention (No Underdrain)	897
871088	West Hollywood	Hampton Ave	Bioretention (No Underdrain)	1,834
871088	West Hollywood	Lexington Ave	Bioretention (No Underdrain)	2,740
871088	West Hollywood	N Alta Vista Blvd	Bioretention (No Underdrain)	40
871088	West Hollywood	N Curson Ave	Bioretention (No Underdrain)	2,415
871088	West Hollywood	N Detroit St	Bioretention (No Underdrain)	1,238
871088	West Hollywood	N Fairfax Ave	Bioretention (No Underdrain)	2,429
871088	West Hollywood	N Formosa Ave	Bioretention (No Underdrain)	1,767
871088	West Hollywood	N Fuller Ave	Bioretention (No Underdrain)	1,768
871088	West Hollywood	N Gardner St	Bioretention (No Underdrain)	2,372
871088	West Hollywood	N Genesee Ave	Bioretention (No Underdrain)	2,416
871088	West Hollywood	N Hayworth Ave	Bioretention (No Underdrain)	2,236
871088	West Hollywood	N la Brea Ave	Bioretention (No Underdrain)	1,749
871088	West Hollywood	N Laurel Ave	Bioretention (No Underdrain)	10
871088	West Hollywood	N Martel Ave	Bioretention (No Underdrain)	568
871088	West Hollywood	N Ogden Dr	Bioretention (No Underdrain)	2,417
871088	West Hollywood	N Orange Grove Ave	Bioretention (No Underdrain)	2,413
871088	West Hollywood	N Poinsettia Dr	Bioretention (No Underdrain)	841
871088	West Hollywood	N Poinsettia Pl	Bioretention (No Underdrain)	2,654
871088	West Hollywood	N Sierra Bonita Ave	Bioretention (No Underdrain)	1,222
871088	West Hollywood	N Spaulding Ave	Bioretention (No Underdrain)	2,419
871088	West Hollywood	N Stanley Ave	Bioretention (No Underdrain)	1,218
871088	West Hollywood	N Vista St	Bioretention (No Underdrain)	1,789

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
871088	West Hollywood	Norton Ave	Bioretention (No Underdrain)	1,685
871088	West Hollywood	Poinsettia Dr	Bioretention (No Underdrain)	986
871088	West Hollywood	Poinsettia Pl	Bioretention (No Underdrain)	27
871088	West Hollywood	Romaine St	Bioretention (No Underdrain)	4,427
871088	West Hollywood	Sierra Bonita Ave	Bioretention (No Underdrain)	1,192
871088	West Hollywood	W Romaine St	Bioretention (No Underdrain)	318
871090	West Hollywood	(unknown)	Bioretention (No Underdrain)	741
871090	West Hollywood	Clinton St	Bioretention (No Underdrain)	666
871090	West Hollywood	de Longpre Ave	Bioretention (No Underdrain)	739
871090	West Hollywood	Fountain Ave	Bioretention (No Underdrain)	2,487
871090	West Hollywood	Havenhurst Dr	Bioretention (No Underdrain)	3,374
871090	West Hollywood	N Crescent Heights Blvd	Bioretention (No Underdrain)	2,453
871090	West Hollywood	N Edinburgh Ave	Bioretention (No Underdrain)	546
871090	West Hollywood	N Flores St	Bioretention (No Underdrain)	2,344
871090	West Hollywood	N Harper Ave	Bioretention (No Underdrain)	3,215
871090	West Hollywood	N Havenhurst Dr	Bioretention (No Underdrain)	950
871090	West Hollywood	N Hayworth Ave	Bioretention (No Underdrain)	1,139
871090	West Hollywood	N Kilkea Dr	Bioretention (No Underdrain)	0
871090	West Hollywood	N Kings Rd	Bioretention (No Underdrain)	2,923
871090	West Hollywood	N La Jolla Ave	Bioretention (No Underdrain)	1,196
871090	West Hollywood	N Laurel Ave	Bioretention (No Underdrain)	2,718
871090	West Hollywood	N Sweetzer Ave	Bioretention (No Underdrain)	3,863
871090	West Hollywood	Norton Ave	Bioretention (No Underdrain)	2,389
871090	West Hollywood	Romaine St	Bioretention (No Underdrain)	1,364
871090	West Hollywood	W Fountain Ave	Bioretention (No Underdrain)	1,603
871090	West Hollywood	W Norton Ave	Bioretention (No Underdrain)	1,235
871090	West Hollywood	Willoughby Ave	Bioretention (No Underdrain)	1,056
871091	West Hollywood	(unknown)	Bioretention (No Underdrain)	7,712
871091	West Hollywood	Ashcroft Ave	Bioretention (No Underdrain)	2,598
871091	West Hollywood	Betty Way	Bioretention (No Underdrain)	319
871091	West Hollywood	Beverly Blvd	Bioretention (No Underdrain)	3,111
871091	West Hollywood	Beverly Pl	Bioretention (No Underdrain)	83
871091	West Hollywood	Bohner Dr	Bioretention (No Underdrain)	797
871091	West Hollywood	Carol Dr	Bioretention (No Underdrain)	447
871091	West Hollywood	Civic Center Dr	Bioretention (No Underdrain)	7
871091	West Hollywood	Cory Ave	Bioretention (No Underdrain)	206
871091	West Hollywood	Cynthia	Bioretention (No Underdrain)	321
871091	West Hollywood	Cynthia St	Bioretention (No Underdrain)	1,770
871091	West Hollywood	Dicks St	Bioretention (No Underdrain)	1,135
871091	West Hollywood	Doheny Rd	Bioretention (No Underdrain)	238
871091	West Hollywood	Dorrington Ave	Bioretention (No Underdrain)	2,357
871091	West Hollywood	el Tovar Pl	Bioretention (No Underdrain)	155
871091	West Hollywood	Elevado Ave	Bioretention (No Underdrain)	1
871091	West Hollywood	Elevado St	Bioretention (No Underdrain)	743
871091	West Hollywood	Hammond St	Bioretention (No Underdrain)	1,199
871091	West Hollywood	Hancock Ave	Bioretention (No Underdrain)	728
871091	West Hollywood	Harland Ave	Bioretention (No Underdrain)	362
871091	West Hollywood	Harratt St	Bioretention (No Underdrain)	342
871091	West Hollywood	Hilldale Ave	Bioretention (No Underdrain)	1,647
871091	West Hollywood	Holloway Dr	Bioretention (No Underdrain)	940
871091	West Hollywood	Holloway Plaza Dr	Bioretention (No Underdrain)	29
871091	West Hollywood	Horn Ave	Bioretention (No Underdrain)	120
871091	West Hollywood	Huntley Dr	Bioretention (No Underdrain)	3,937
871091	West Hollywood	Keith Ave	Bioretention (No Underdrain)	1,591
871091	West Hollywood	la Collina Dr	Bioretention (No Underdrain)	33

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
871091	West Hollywood	Larrabee St	Bioretention (No Underdrain)	1,096
871091	West Hollywood	Live Oak Wash	Bioretention (No Underdrain)	295
871091	West Hollywood	Lloyd Pl	Bioretention (No Underdrain)	1,219
871091	West Hollywood	Melrose Ave	Bioretention (No Underdrain)	3,942
871091	West Hollywood	N Almont Dr	Bioretention (No Underdrain)	2,028
871091	West Hollywood	N Clark Dr	Bioretention (No Underdrain)	258
871091	West Hollywood	N Doheny Dr	Bioretention (No Underdrain)	4,535
871091	West Hollywood	N George Burns Rd	Bioretention (No Underdrain)	162
871091	West Hollywood	N Hammond St	Bioretention (No Underdrain)	992
871091	West Hollywood	N Hancock Ave	Bioretention (No Underdrain)	595
871091	West Hollywood	N Hancock Dr	Bioretention (No Underdrain)	133
871091	West Hollywood	N Hilldale Ave	Bioretention (No Underdrain)	896
871091	West Hollywood	N Hilldale St	Bioretention (No Underdrain)	218
871091	West Hollywood	N la Collina Dr	Bioretention (No Underdrain)	33
871091	West Hollywood	N la Peer Dr	Bioretention (No Underdrain)	1,111
871091	West Hollywood	N Larrabee St	Bioretention (No Underdrain)	770
871091	West Hollywood	N Oakhurst Dr	Bioretention (No Underdrain)	2
871091	West Hollywood	N Palm Ave	Bioretention (No Underdrain)	616
871091	West Hollywood	N Ramage St	Bioretention (No Underdrain)	42
871091	West Hollywood	N Robertson Blvd	Bioretention (No Underdrain)	2,954
871091	West Hollywood	N San Vicente Blvd	Bioretention (No Underdrain)	4,682
871091	West Hollywood	N Sherbourne Dr	Bioretention (No Underdrain)	1,123
871091	West Hollywood	N Sierra Alta Way	Bioretention (No Underdrain)	161
871091	West Hollywood	N Swall Dr	Bioretention (No Underdrain)	256
871091	West Hollywood	N Westmount Dr	Bioretention (No Underdrain)	67
871091	West Hollywood	N Wetherly Dr	Bioretention (No Underdrain)	649
871091	West Hollywood	N Willey Ln	Bioretention (No Underdrain)	380
871091	West Hollywood	Nellas St	Bioretention (No Underdrain)	24
871091	West Hollywood	Nemo St	Bioretention (No Underdrain)	321
871091	West Hollywood	Norma Pl	Bioretention (No Underdrain)	1,270
871091	West Hollywood	Norwich Dr	Bioretention (No Underdrain)	1,063
871091	West Hollywood	Palm Ave	Bioretention (No Underdrain)	877
871091	West Hollywood	Park Ave	Bioretention (No Underdrain)	266
871091	West Hollywood	Phyllis Ave	Bioretention (No Underdrain)	454
871091	West Hollywood	Ramage St	Bioretention (No Underdrain)	89
871091	West Hollywood	Rangely Ave	Bioretention (No Underdrain)	2,183
871091	West Hollywood	Rosewood Ave	Bioretention (No Underdrain)	3,075
871091	West Hollywood	Rugby Dr	Bioretention (No Underdrain)	756
871091	West Hollywood	S San Vicente Blvd	Bioretention (No Underdrain)	89
871091	West Hollywood	Santa Monica Blvd	Bioretention (No Underdrain)	1,999
871091	West Hollywood	Sherbourne Dr	Bioretention (No Underdrain)	10
871091	West Hollywood	Sherwood Dr	Bioretention (No Underdrain)	1,100
871091	West Hollywood	Shoreham Dr	Bioretention (No Underdrain)	89
871091	West Hollywood	Sierra Alta Way	Bioretention (No Underdrain)	161
871091	West Hollywood	Sunset Plaza Dr	Bioretention (No Underdrain)	26
871091	West Hollywood	Vista Grande St	Bioretention (No Underdrain)	959
871091	West Hollywood	W Cynthia St	Bioretention (No Underdrain)	1,767
871091	West Hollywood	W Dicks St	Bioretention (No Underdrain)	630
871091	West Hollywood	W Elevado Ave	Bioretention (No Underdrain)	743
871091	West Hollywood	W Harratt St	Bioretention (No Underdrain)	252
871091	West Hollywood	W Holloway Dr	Bioretention (No Underdrain)	540
871091	West Hollywood	W Keith Ave	Bioretention (No Underdrain)	1,591
871091	West Hollywood	W Knoll Dr	Bioretention (No Underdrain)	2,695
871091	West Hollywood	W Lloyd Pl	Bioretention (No Underdrain)	1,219
871091	West Hollywood	W Norma Pl	Bioretention (No Underdrain)	1,270

Sub-watershed	Jurisdiction	Street Name	Drainage Configuration	Centerline Length (ft)
871091	West Hollywood	W Shoreham Dr	Bioretention (No Underdrain)	89
871091	West Hollywood	W Vista Grande St	Bioretention (No Underdrain)	959
871091	West Hollywood	Westbourne Dr	Bioretention (No Underdrain)	2,476
871091	West Hollywood	Westmount Dr	Bioretention (No Underdrain)	2,278
871091	West Hollywood	Wetherly Dr	Bioretention (No Underdrain)	396
871091	West Hollywood	Willey Ln	Bioretention (No Underdrain)	380
871092	West Hollywood	(unknown)	Bioretention (No Underdrain)	2,441
871092	West Hollywood	Alta Loma Rd	Bioretention (No Underdrain)	284
871092	West Hollywood	Beverly Blvd	Bioretention (No Underdrain)	13
871092	West Hollywood	Beverly Pl	Bioretention (No Underdrain)	14
871092	West Hollywood	Clinton St	Bioretention (No Underdrain)	1,093
871092	West Hollywood	de Longpre Ave	Bioretention (No Underdrain)	4
871092	West Hollywood	Fountain Ave	Bioretention (No Underdrain)	211
871092	West Hollywood	Hacienda Pl	Bioretention (No Underdrain)	370
871092	West Hollywood	Holloway Dr	Bioretention (No Underdrain)	1,013
871092	West Hollywood	Holloway Plaza Dr	Bioretention (No Underdrain)	2
871092	West Hollywood	Melrose Ave	Bioretention (No Underdrain)	847
871092	West Hollywood	N Alfred St	Bioretention (No Underdrain)	937
871092	West Hollywood	N Croft Ave	Bioretention (No Underdrain)	1,156
871092	West Hollywood	N Hacienda Pl	Bioretention (No Underdrain)	370
871092	West Hollywood	N Kings Rd	Bioretention (No Underdrain)	817
871092	West Hollywood	N La Cienega Blvd	Bioretention (No Underdrain)	1,743
871092	West Hollywood	N Olive Dr	Bioretention (No Underdrain)	607
871092	West Hollywood	N Orlando Ave	Bioretention (No Underdrain)	1,118
871092	West Hollywood	N Westmount Dr	Bioretention (No Underdrain)	115
871092	West Hollywood	Olive Dr	Bioretention (No Underdrain)	607
871092	West Hollywood	Rangely St	Bioretention (No Underdrain)	663
871092	West Hollywood	Romaine St	Bioretention (No Underdrain)	135
871092	West Hollywood	Rosewood Ave	Bioretention (No Underdrain)	792
871092	West Hollywood	Santa Monica Blvd	Bioretention (No Underdrain)	152
871092	West Hollywood	W Clinton Ave	Bioretention (No Underdrain)	323
871092	West Hollywood	W Fountain Ave	Bioretention (No Underdrain)	110
871092	West Hollywood	W Holloway Dr	Bioretention (No Underdrain)	300
871092	West Hollywood	W Knoll Dr	Bioretention (No Underdrain)	571
871092	West Hollywood	W Knoll Dr N	Bioretention (No Underdrain)	433
871092	West Hollywood	Westbourne Dr	Bioretention (No Underdrain)	2,004
871092	West Hollywood	Westmount Dr	Bioretention (No Underdrain)	1,088
871092	West Hollywood	Willoughby Ave	Bioretention (No Underdrain)	141

Appendix 6.F

Detailed List of Existing and Planned Control Measures

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The lists below were prepared using the resources discussed in [Appendix 6.C](#), and organized as follows:

- 6.F.1 - Number of BMPs Installed in 2010-2011 Ballona Creek Watershed Management Area
- 6.F.2 - Number of BMPs Installed in 2011-2012 Ballona Creek Watershed Management Area
- 6.F.3 – BMPs Identified in Time Schedule Order Request Letters – Ballona Creek Watershed Management Area
- 6.F.4 – City of Los Angeles BMPs – Ballona Creek Watershed Management Area
- 6.F.5 - Number of BMPs Maintained in 2010-2011 Ballona Creek Watershed Management Area
- 6.F.6 - Number of BMPs Maintained in 2011-2012 Ballona Creek Watershed Management Area

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Number of BMPs Installed in 2010-2011 Ballona Creek Watershed Management Area

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
Structural BMPs										
Category	Subcategory	BMPs								
Regional BMPs	Low Flow Diversions	Low Flow Diversion					6			6
	Site-Scale Detention	Detention/Depression Basin		1						1
Distributed BMPs	Green Infrastructure	Biofilters/Bioswale						6		6
		Bioretention Facility							1	1
		Cistern/Drywell						20		20
		Green Street						1		1
		Geo Block Porous Pavement				5				5
		Infiltration Trenches				13				13
		Infiltration Pit						59		59
	Flow-through Treatment BMPs	Downspout Filters						2		2
		Flow through Planter		1						1
		StormFilter						1		1
		Bird Deterrent Spikes					2			2

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
	Source Control Structural BMPs	CDS Gross Pollutant Separators				3				3
		Fossil Filter Catch Basin Inserts		2		22		1	5	30
		Stormceptor Gross Pollutant Separators				1				1
		Storm Drain Trash Grate					21			21

Number of BMPs Installed in 2011-2012 - Ballona Creek Watershed Management Area

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
Structural BMPs										
Category	Subcategory	BMPs								
Distributed BMPs	Site-Scale Detention	Retention Basin		4						4
	Green Infrastructure	Biofiltration/Biofilters/Bioswale						6	13	19
		Bioretention Facility				219				219
		Cistern/Rain Barrels				7		69		76
		Earth Dikes/Drainage Swales					4			4
		Filtterra				8				8
		Green Roof				3				3
		Geo Block Porous Pavement				8				8
		Infiltration Pit						45		45
		Infiltration Trenches				40	1		3	44
		Permeable/Pervious Pavement						5		5
		StormTech Chamber System				1				1
		Vegetated Swale				1				1
	Flow-through Treatment BMPs	Flow through Planter		1						1
	Source Control Structural BMPs	Catch Basin Insert (various)				1638		2		1640

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
	CDS Gross Pollutant Separators				2				2
	Clarifier		2						2
	Clean Screen Catch Basin Inserts	7							7
	Concrete Washout Containers					2			2
	Covered Trash Bins	18							18
	Downspout Inserts						2		2
	Enhanced Street Sweeping					1			1
	Extra Trash Cans	16							16
	Fiber Rolls					1000			1000
	Floating Trash Booms					1			1
	Fossil Filter Catch Basin Inserts		5		89	1		15	110
	Hydrodynamic Separation System							1	1
	Pet Waste Station							1	1
	Poured Concrete Catch Basin					1			1
	Sand Bags					862			862
	Signage and Stenciling							29	29
	Silt Screens/Fence					2			2
	Slope Vegetation				15				15

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
		Stabilized Construction Entrance/Exit					8			8
		Storm Drain Inlet Protection					3			3
		Stormceptor Gross Pollutant Separators	2			1				3
Institutional BMPs										
		Concrete Waste Management					4			4
		Solid Waste Management					2			2
		Spill Prevention and Control					2			2
		Stockpile Management					1			1
		Water Trucks					1			1

BMPs Identified in Time Schedule Order Request Letters - Ballona Creek Watershed Management Area

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	LACFCD	Santa Monica	West Hollywood	Total
Structural BMPs											
Category	Subcategory	BMPs									
Regional BMPs	Detention	Detention Facility				2				3	5
	Low Flow Diversions	Low Flow Diversion Structure					1				1
Distributed BMPs	Green Infrastructure	Biotreatment Filter								1	1
		Contech Infiltration System								1	1
		Cultec Infiltration								1	1
		Filtterra								9	9
		Infiltration Basin								2	2
		Infiltration Pit								2	2
		Infiltration Planter								7	7
		Infiltration Trench								1	1
		Infiltration Well								1	1
		Modular Wetland								3	3
		Rain Barrels		400							400
		Rain Gardens		4	1						5
		Storm Tank Infiltration System								1	1
		Wet Pond								1	1

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	LACFCD	Santa Monica	West Hollywood	Total
	Flow-through Treatment BMPs	Flow-through Planter								31	31
	Source Control Structural BMPs Flow	Automatic Retractable Screen (ARS)		411	89						500
		Catch Basin Screens and Filters				18,000				150	18,150
		Commercial Trash Bins	182							200	382
		Connector Pipe Screens (CPS)		154	205						359
		Extra Trash Bins	62	18							80
		Filter Insert								111	111
		Full-capture and Partial-capture Devices						318			318
		Hydrodynamic Separators				5				3	8
		Oil/ Water Separators								2	2
		Outfall Screens				1					1
		Poured Concrete Catch Basin	423							260	683
		Sediment Filter								1	1
		Stormceptor								2	2
		Surf Gate Catch Basin Automatic Retractable Screen (ARS)	423								423
		Trash Netting System				10					10
		Vortex								1	1
Institutional BMPs											
		Catch Basin Maintenance Program	1	1	1	1				1	5
		Fats, Oil and Grease (FOG) Program	1		1						2
		Green Building Ordinance								1	1

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	LACFCD	Santa Monica	West Hollywood	Total
		Illicit Connection/ Illicit Discharge (IC/ID) Enforcement Program	1	1	1					1	4
		Industrial Waste Code Compliance Program								1	1
		Low Impact Development Ordinance				1	1			1	3
		Standard Urban Stormwater Mitigation Plan (SUSMP) Program	1	1	1	1				1	5
		Stormwater Educational Outreach Program	1		1	1				1	4
		Street Sweeping Program	1	1	1	1	1			1	6
		Water Conservation Ordinance	1							1	2

City of Los Angeles BMPs - Ballona Creek Watershed Management Area

BMP Type					City of Los Angeles
Structural BMPs					
Category	Subcategory	BMPs			
Regional BMPs	Infiltration	Infiltration System Westside Park Stormwater Greenway Mar Vista Recreation Center Rainwater Capture and Reuse South Los Angeles Wetlands Park		3	
	Detention	Detention System Westside Park Stormwater Greenway Mar Vista Recreation Center Rainwater Capture and Reuse South Los Angeles Wetlands Park		3	
Distributed BMPs	Green Infrastructure	Bio-retention Planters Westside Park Stormwater Greenway Mar Vista Recreation Center Rainwater Capture and Reuse South Los Angeles Wetlands Park		3	
		Drought Tolerant Plants Westside Park Stormwater Greenway Mar Vista Recreation Center Rainwater Capture and Reuse		2	
		Rain Gardens University Park Neighborhood Rain Gardens		1	
		Treatment Wetland South Los Angeles Wetlands Park		1	
		Vegetated Swale University Park Neighborhood Rain Gardens		1	
Institutional BMPs					

BMP Type				City of Los Angeles
		Stormwater Re-use Westside Park Stormwater Greenway Mar Vista Recreation Center Rainwater Capture and Reuse South Los Angeles Wetlands Park		3

Number of BMPs Maintained in 2010-2011 Ballona Creek Watershed Management Area

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
Structural BMPs									
Category	Subcategory	BMPs							
Regional BMPs	Low Flow Diversions	Diversion Structure				4			4
		Low Flow Diversion				16			16
Distributed BMPs	Site-Scale Detention	Detention/Infiltration Basin	1						1
	Green Infrastructure	Biofilters					52		52
		Filtrerra						1	1
		Geo Block Porous Pavement			18				18
		Grass Block Porous Pavement					8		8
		Grass Pavers Porous Pavement					3		3
		Gravel Pave Porous Pavement	2				3		5
		Infiltration Pit					899		899
		Infiltration Trenches			117	4	31	1	153
		Perforated CMP					2		2
	Flow-through Treatment BMPs	Downspout Filters/Insert					9		9
		Flow-through Planter Box	4						4
		HydroCartridge In-Line Filters			7		3		10
		StormFilter					9		9
		Abtech Drain Insert	4						4

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
Source Control Structural BMPs	Abtech OARS Oil Skimmer		2						2
	Automatic Retractable Screen Catch Basin (ARS)					282			282
	Abtech Ultra Urban Catch Basin Insert		8		75	264			347
	Bioclean Catch Basin Insert						36		36
	Bird Deterrent Spikes					20			20
	Catch Basin Debris Excluders/Filters/Screens						245		245
	Catch Basin Opening Screen						45		45
	CDS Gross Pollutant Separators		2		54	6			62
	Clean Screen Catch Basin Inserts					127			127
	Connector Pipe Screens Catch Basin (CPS)					348			348
	Covered Material Bunkers					4			4
	Covered Trash Bins		22			1400			1422
	Drain Pac Catch Basin Inserts		1		143		73		217
	Extra Trash Cans					24			24
	Floguard Catch Basin Insert					4			4
	Fossil Filter Catch Basin Inserts		10		909		19	11	949
	Recycle Bins					7			7
	Restaurant Vent Traps					1			1
	Sand Bag					100			100

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
		Stabilized Construction Entrance					1			1
		Stormceptor Gross Pollutant Separators				33				33
		Storm Drain Grate					24			24
Institutional BMPs										
		Dog Parks		1		7	4	2		14
		Green Street						1		1
		Wash Out Area					1			1

Number of BMPs Maintained in 2011-2012 - Ballona Creek Watershed Management Area

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
Structural BMPs										
Category	Subcategory	BMPs								
Distributed BMPs	Site-Scale Detention	Retention Basin		4						4
	Green Infrastructure	Biofilters						58	16	74
		Bioretention Facility (planter box)				1163				1163
		Cistern/Rain Barrel				16				16
		Earth Dikes/ Drainage Swales					4			4
		Filterra				36				36
		Geo Block Porous Pavement				26				26

BMP Type			Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
		Grass Block Porous Pavement						8		8
		Grass Pavers Porous Pavement						3		3
		Gravel Pave Porous Pavement		2						2
		Harvest and Reuse							1	1
		Infiltration Pit						944		944
		Infiltration Trenches				157	2	31	14	204
		Perforated CMP						2		2
		Permeable/Porous Pavement						10		10
		StormTech Chamber System				3				3
		Vegetated Swale/Strip				32			8	40
	Flow-through Treatment BMPs	Downspout Filters/Insert						11		11
		Flow-through Planter Box		1					2	3
		HydroCartridge In-Line Filters				7	7			14
		Storm Filter				33		12		45
	Source Control Structural BMPs	Abtech OARS Oil Skimmer		2						2
		Abtech Smart Sponge				2				2
		Abtech Steemer				1				1
		Abtech Ultra Urban Catch Basin Insert		8		75	264			347
		Automatic Retractable Screen Catch Basin (ARS)					282			282
		Bioclean Catch Basin Insert						36		36

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
	Bird Deterrent Spikes					20			20
	Catch Basin Insert (various)					37			37
	Catch Basin Opening Screen				28796				28796
	Catch Basin Insert Screens, Filters, Excluders						247		247
	CDS Gross Pollutant Separators		2		56				58
	Clarifiers		2						2
	Clean Screen Catch Basin Inserts	556				5			561
	Concrete Washout Containers					15			15
	Connector Pipe Screens Catch Basin (CPS)					348			348
	Covered Material Bunkers		22			4			26
	Covered Trash Bins	278	1			1400			1679
	Drain Pac Catch Basin Inserts				143				143
	Extra Trash Cans					24		200	224
	Fiber Rolls					1000			1000
	Floating Trash Booms					26			26
	Fossil Filter Catch Basin Inserts		15		998	78	19	99	1209
	Hydrodynamic Separation System							1	1
	Pet Waste Stations							81	81
	Poured Concrete Catch Basin					1			1

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
	Recycle Bins					7			7
	Sand Bag					1001			1001
	Signage and Stenciling							82	82
	Silt Fence/Screen					44			44
	Slope Stabilization					4			4
	Slope Vegetation				181				181
	Stabilized Construction Entrance					10			10
	Stormceptor Gross Pollutant Separators	68			33		2		103
	Storm Drain Grate					24			24
	Storm Drain Inlet Protection					6			6
	Trench Drain with Fossil Filter					6		2	8
Institutional BMPs									
	Concrete Waste Management					5			5
	Dog Parks		1		7	4	2	1	15
	Enclosed Material Mix Truck					1			1
	Enhanced Street Sweeping					1			1
	Green Roof System				5				5
	Green Street						2		2
	Sanitary Septic Waste Management					2			2
	Solid Waste Management					2			2

BMP Type		Beverly Hills	Culver City	Inglewood	City of Los Angeles	County of Los Angeles	Santa Monica	West Hollywood	Total
	Spill Prevention and Control					2			2
	Stockpile Management					2			2
	Vehicle and Equipment Maintenance					1			1
	Water Trucks					1			1
	Wind Erosion					1			1

Appendix 6.G

Cost Optimization Curves

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This appendix presents cost optimization curves for each watershed and jurisdiction, as follows:

- Figure 6G-1. BMP capacities: Beverly Hills (Ballona Creek). **Error! Bookmark not defined.**
 Figure 6G-2. BMP capacities: Culver City (Ballona Creek). **Error! Bookmark not defined.**
 Figure 6G-3. BMP capacities: Culver City (Centinela Creek). **Error! Bookmark not defined.**
 Figure 6G-4. BMP capacities: Culver City (Sepulveda Channel). **Error! Bookmark not defined.**
 Figure 6G-5. BMP capacities: Inglewood (Ballona Creek). **Error! Bookmark not defined.**
 Figure 6G-6. BMP capacities: Inglewood (Centinela Creek). **Error! Bookmark not defined.**
 Figure 6G-7. BMP capacities: Los Angeles (Ballona Creek). **Error! Bookmark not defined.**
 Figure 6G-8. BMP capacities: Los Angeles (Centinela Creek). **Error! Bookmark not defined.**
 Figure 6G-9. BMP capacities: Los Angeles (Sepulveda Channel). **Error! Bookmark not defined.**
 Figure 6G-10. BMP capacities: Santa Monica (Sepulveda Channel). **Error! Bookmark not defined.**
 Figure 6G-11. BMP capacities: Uninc. LA County (Ballona Creek). **Error! Bookmark not defined.**
 Figure 6G-12. BMP capacities: Uninc. LA County (Centinela Creek). **Error! Bookmark not defined.**
 Figure 6G-13. BMP capacities: West Hollywood (Ballona Creek). **Error! Bookmark not defined.**

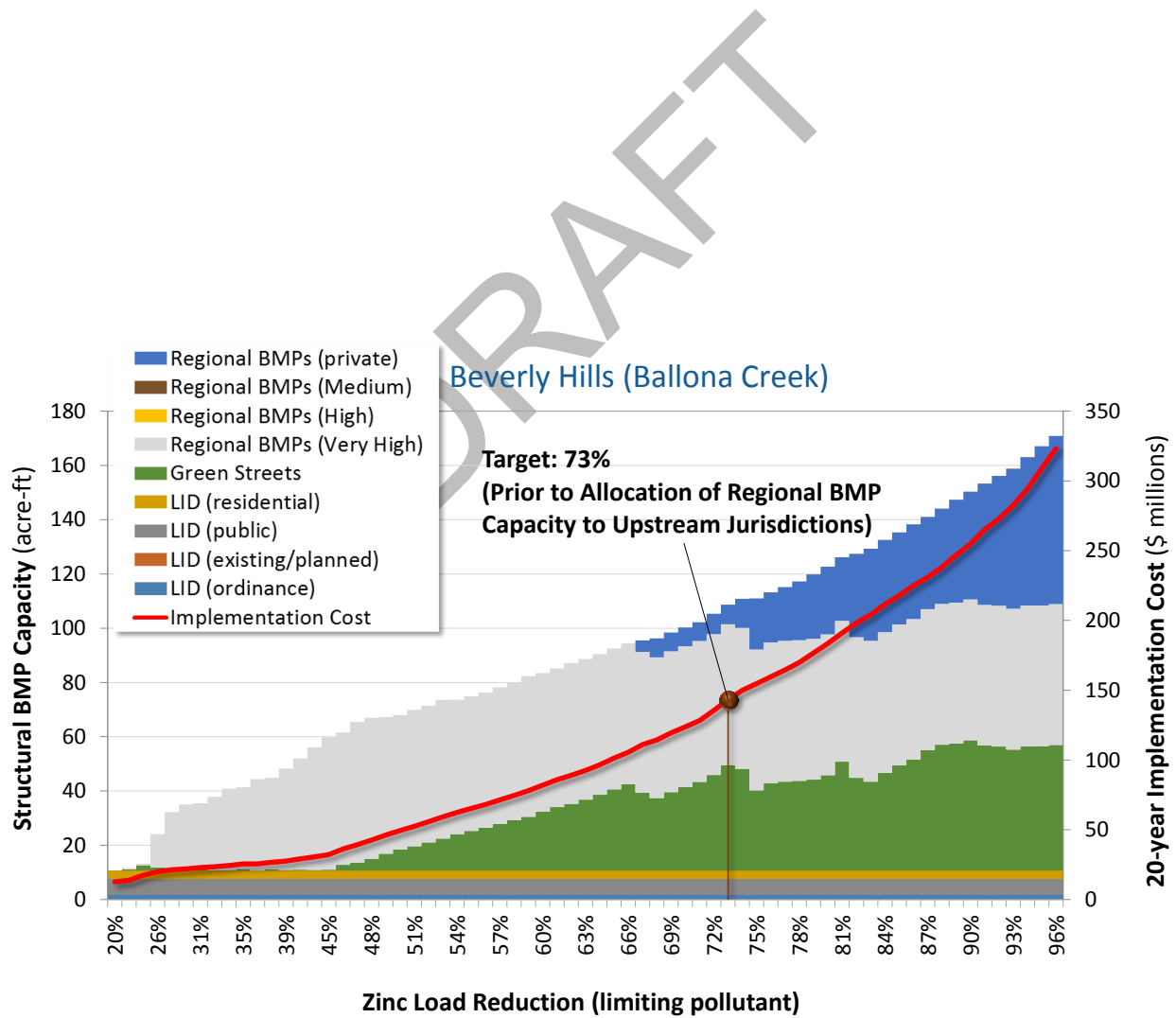


Figure 6G-43. BMP capacities: Beverly Hills (Ballona Creek mainstem).

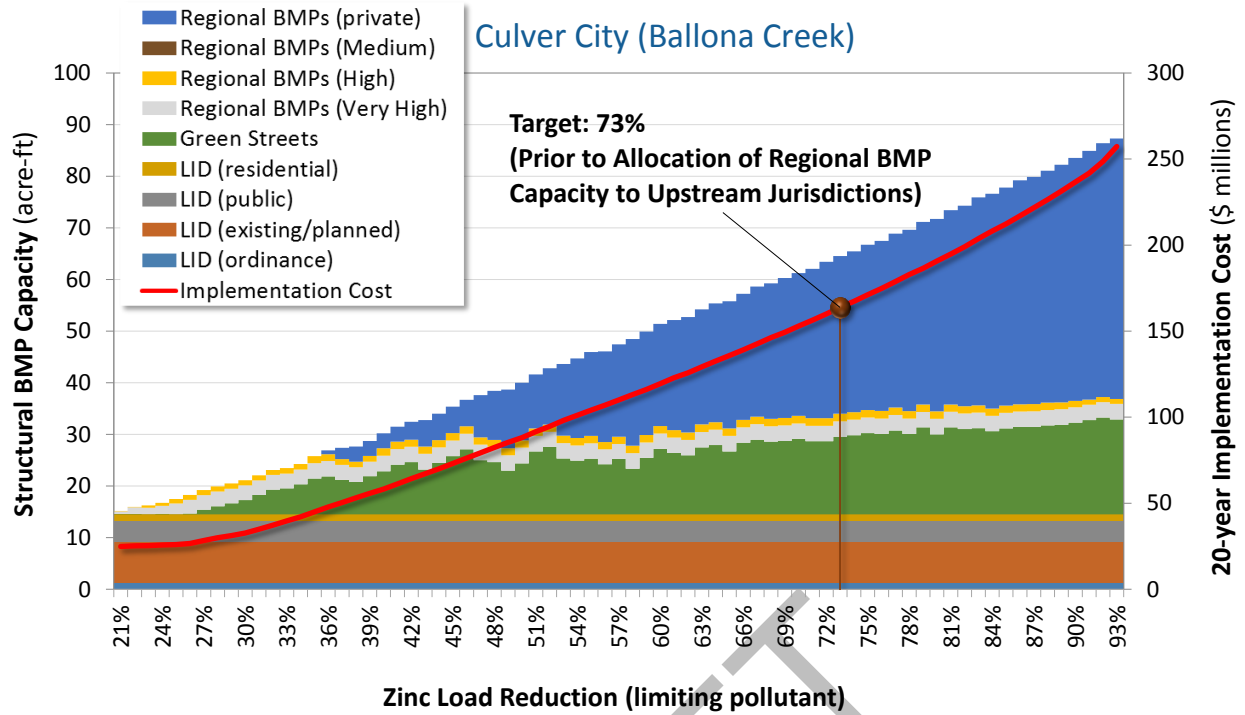


Figure 6G-44. BMP capacities: Culver City (Ballona Creek mainstem).

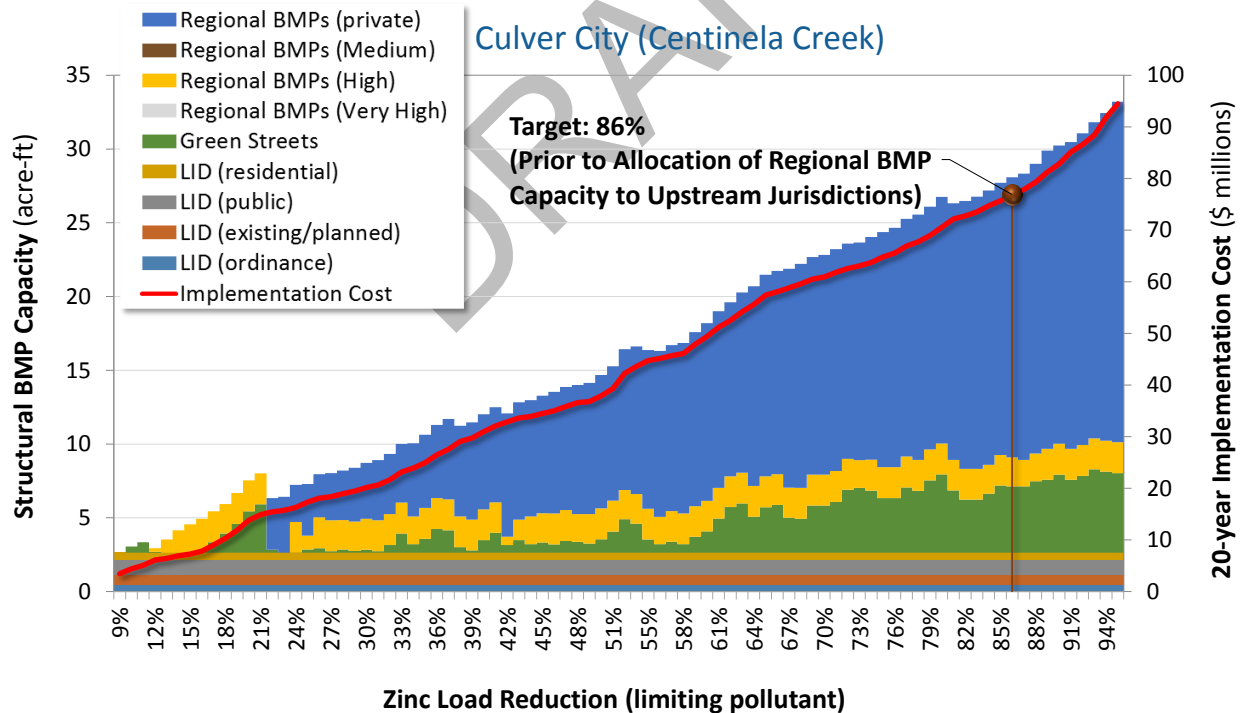


Figure 6G-45. BMP capacities: Culver City (Centinela Creek).

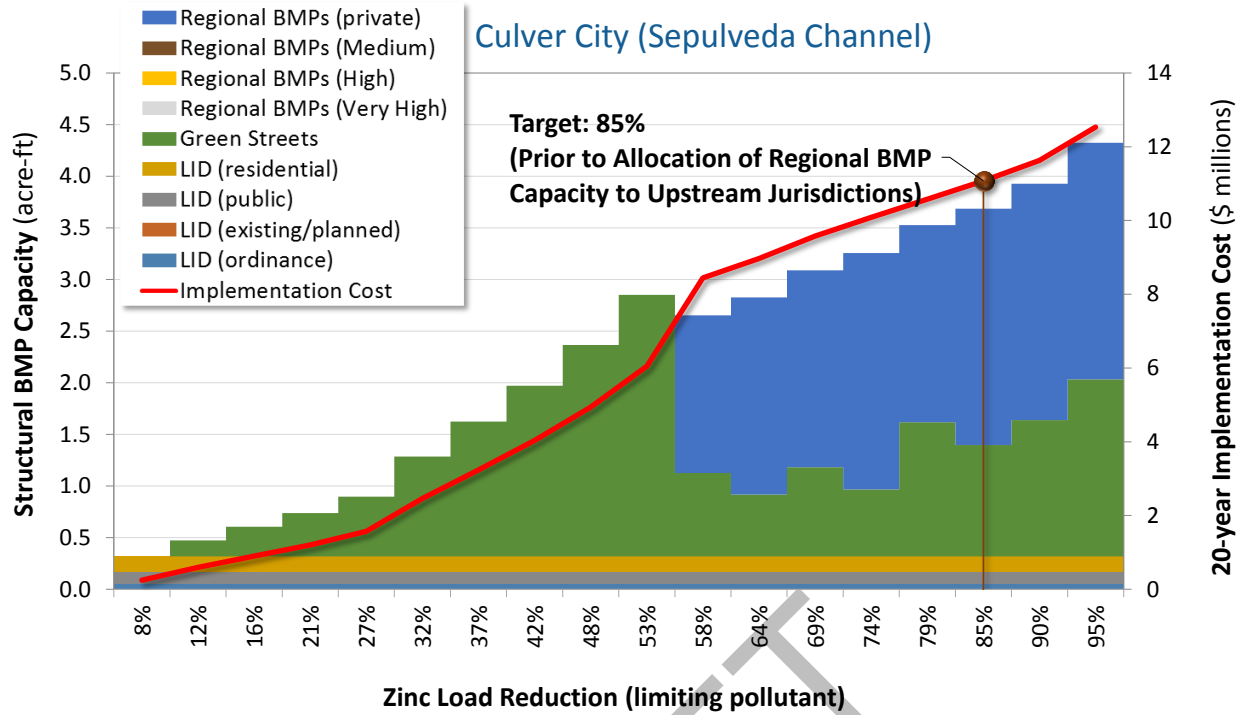


Figure 6G-46. BMP capacities: Culver City (Sepulveda Channel).

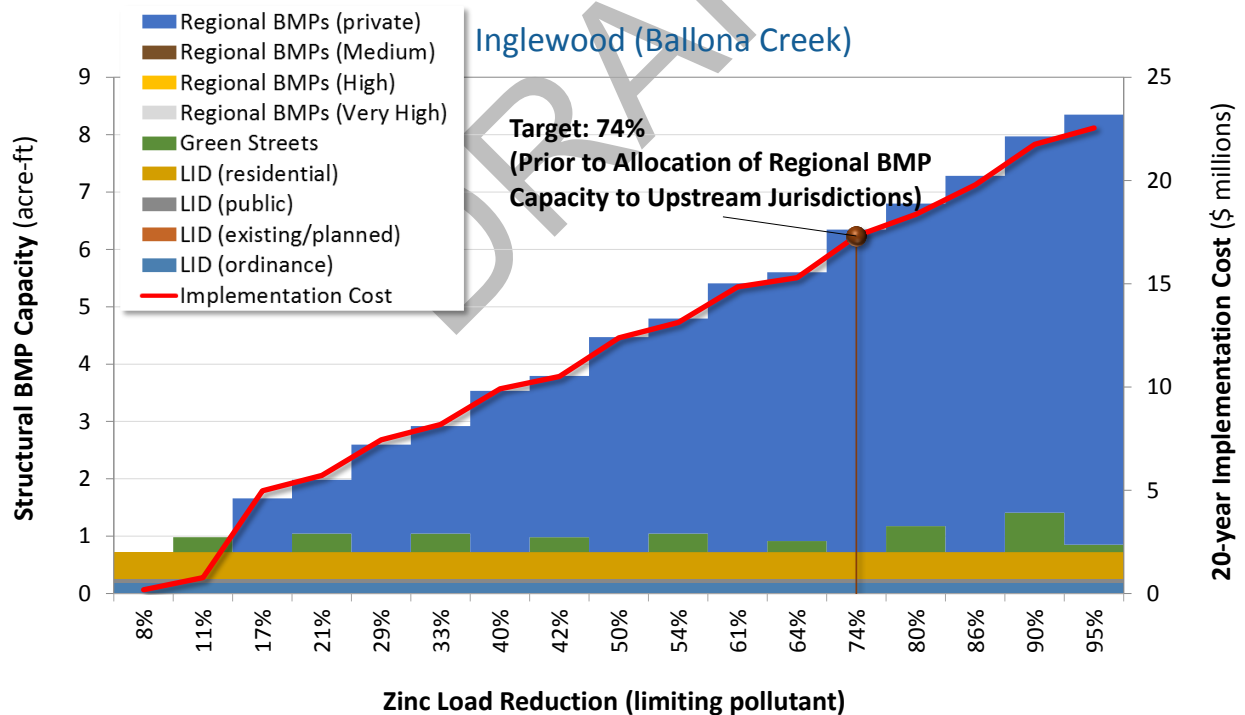


Figure 6G-47. BMP capacities: Inglewood (Ballona Creek).

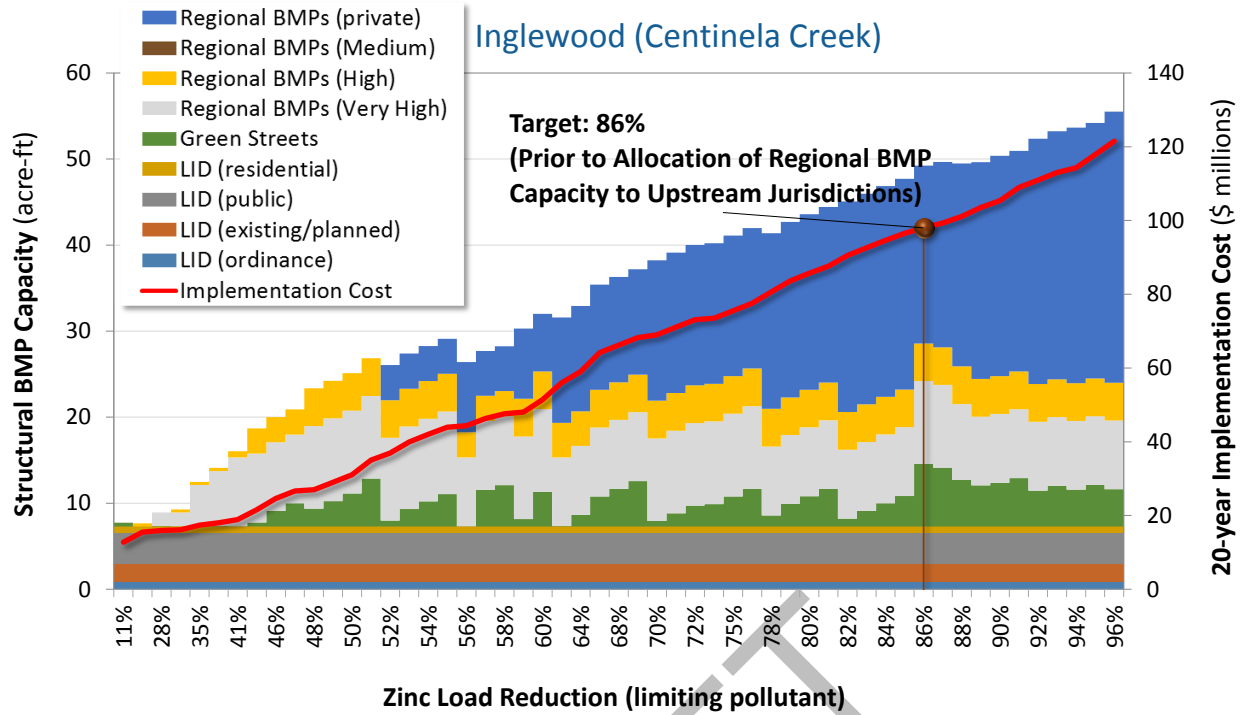


Figure 6G-48. BMP capacities: Inglewood (Centinela Creek).

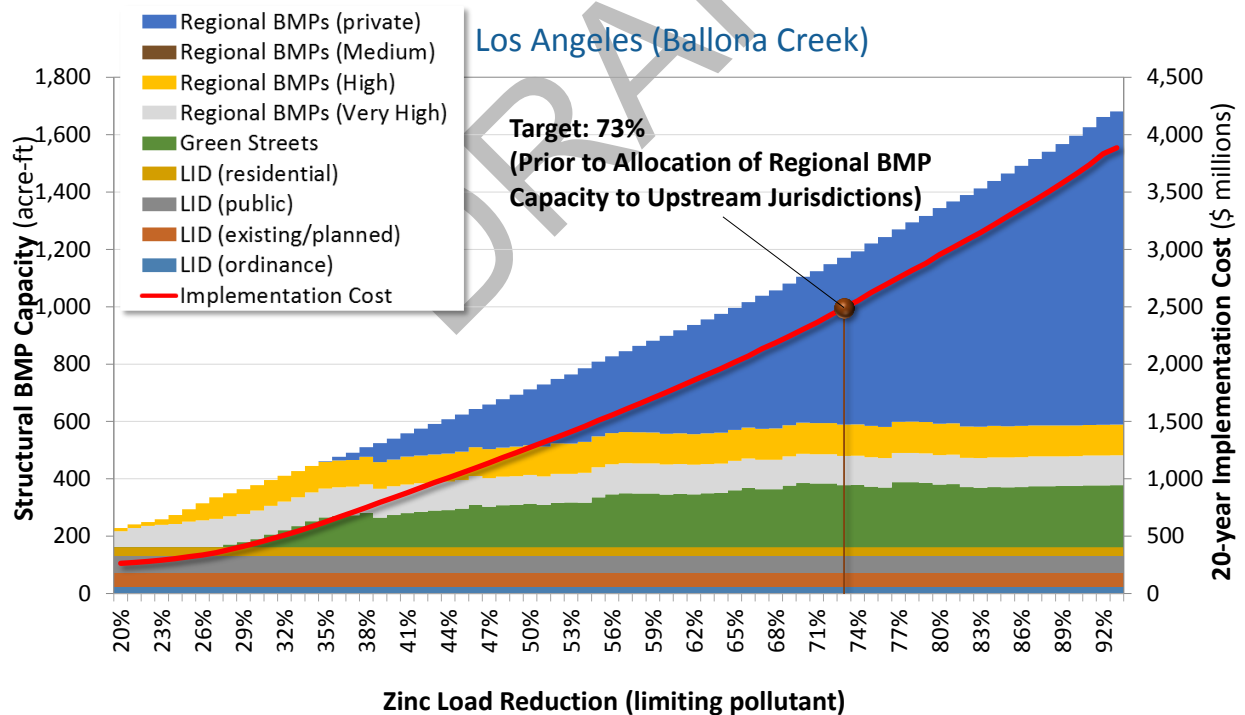


Figure 6G-49. BMP capacities: Los Angeles (Ballona Creek).

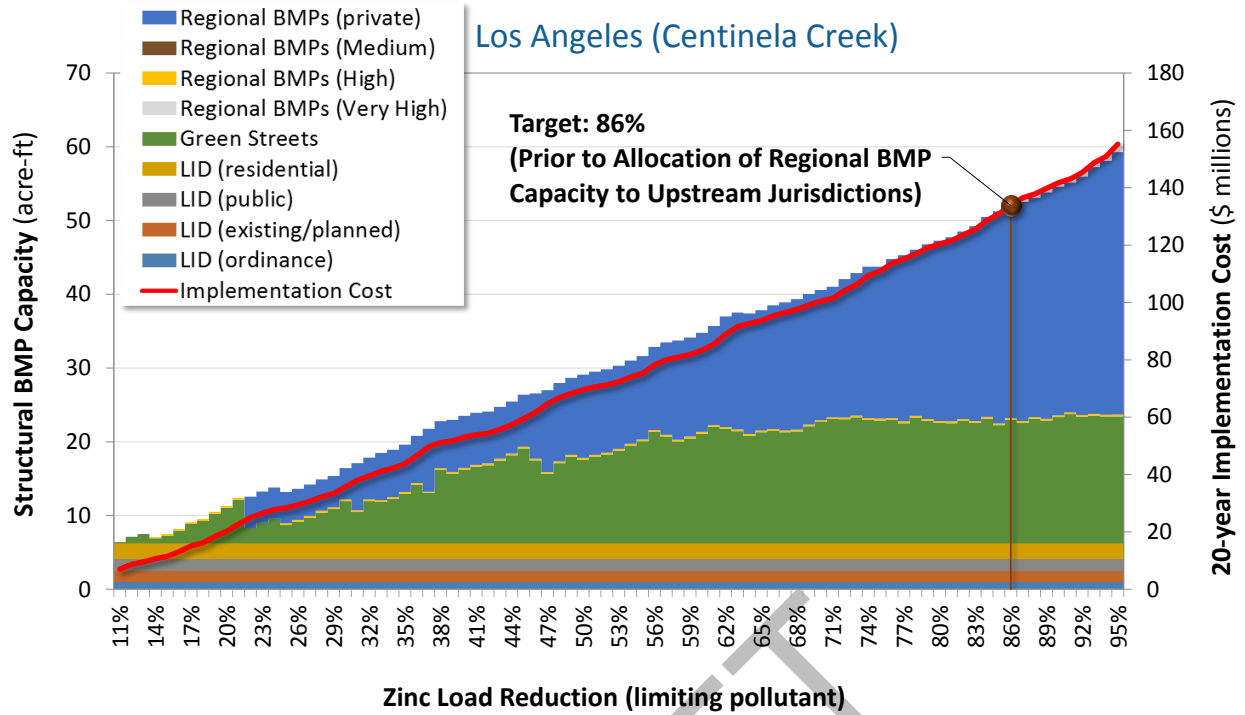


Figure 6G-50. BMP capacities: Los Angeles (Centinela Creek).

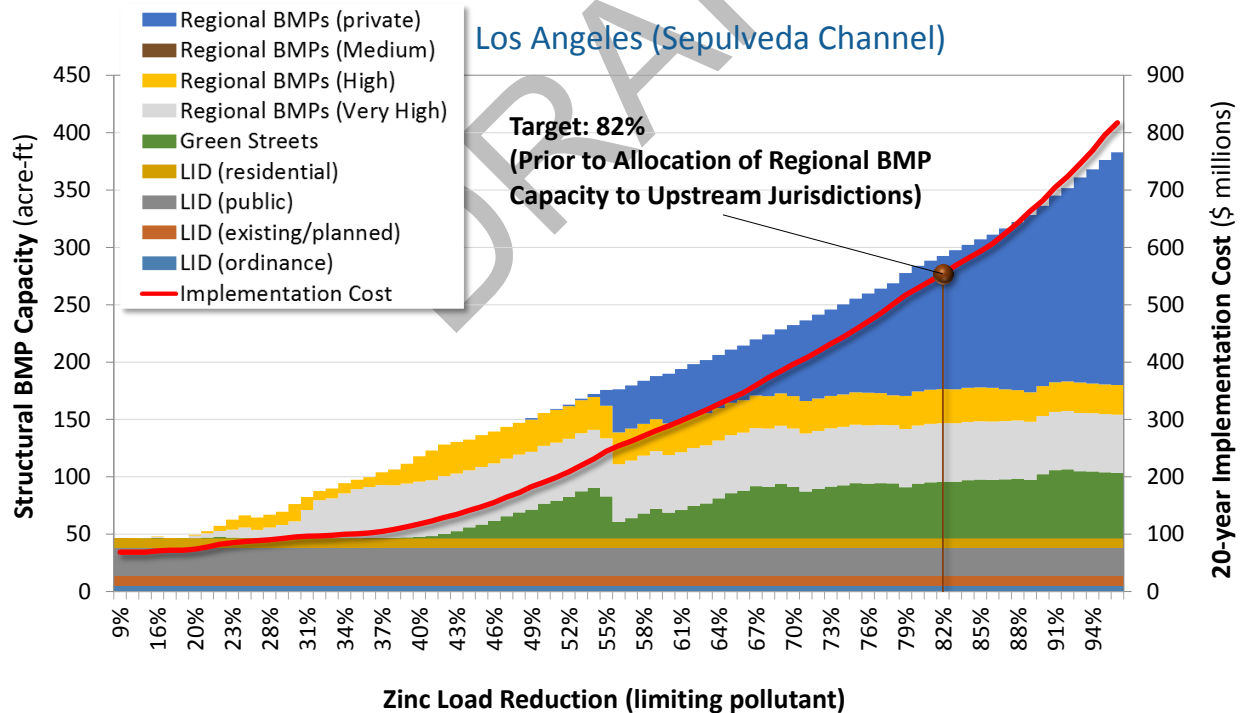


Figure 6G-51. BMP capacities: Los Angeles (Sepulveda Channel).

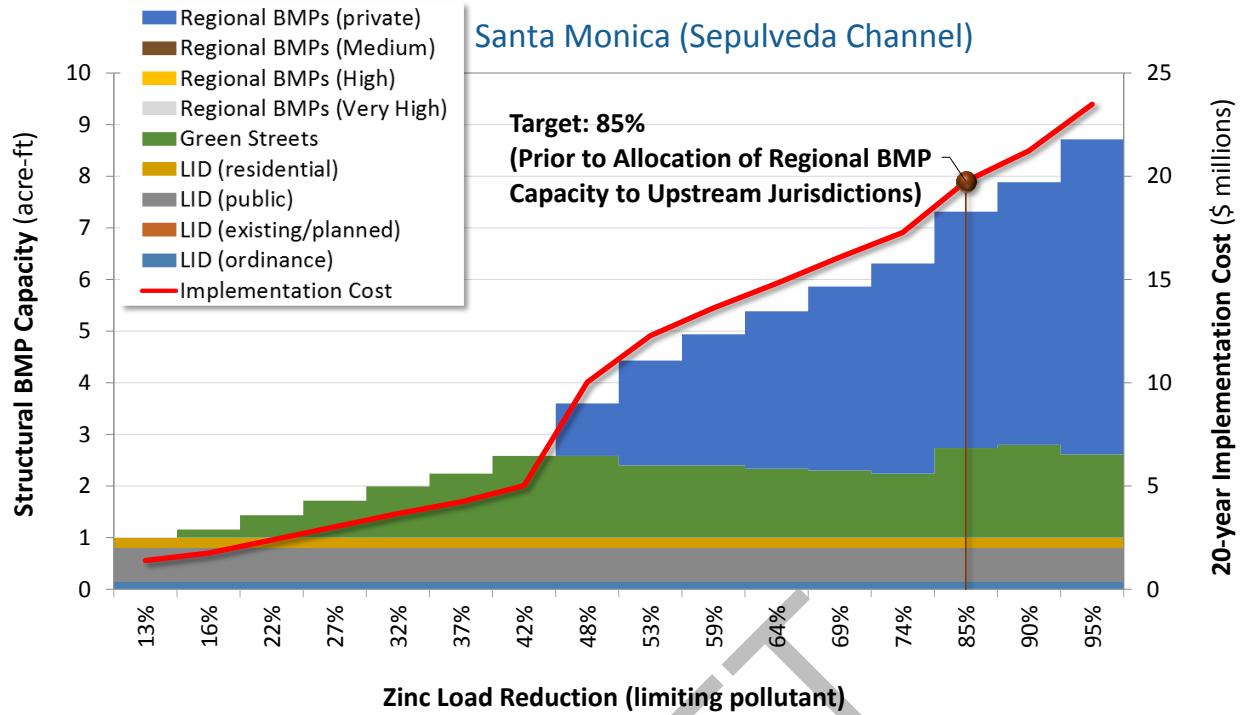


Figure 6G-52. BMP capacities: Santa Monica (Sepulveda Channel).

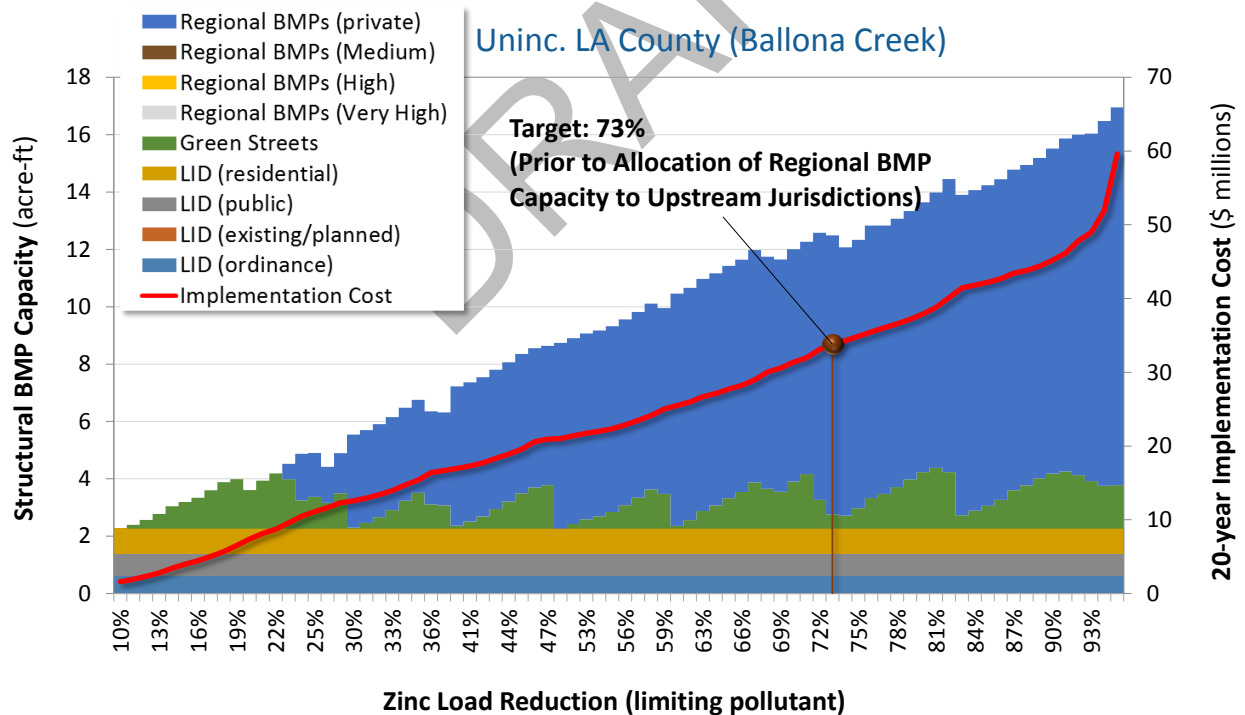


Figure 6G-53. BMP capacities: Uninc. LA County (Ballona Creek).

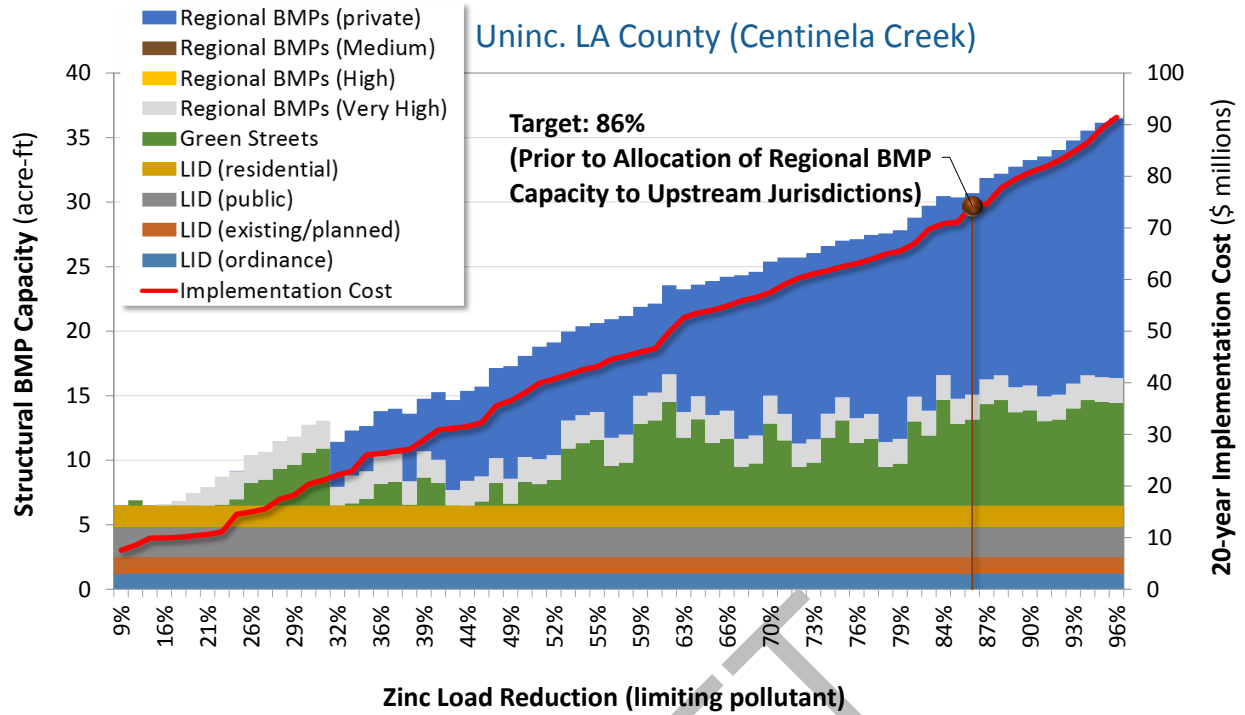


Figure 6G-54. BMP capacities: Uninc. LA County (Centinela Creek).

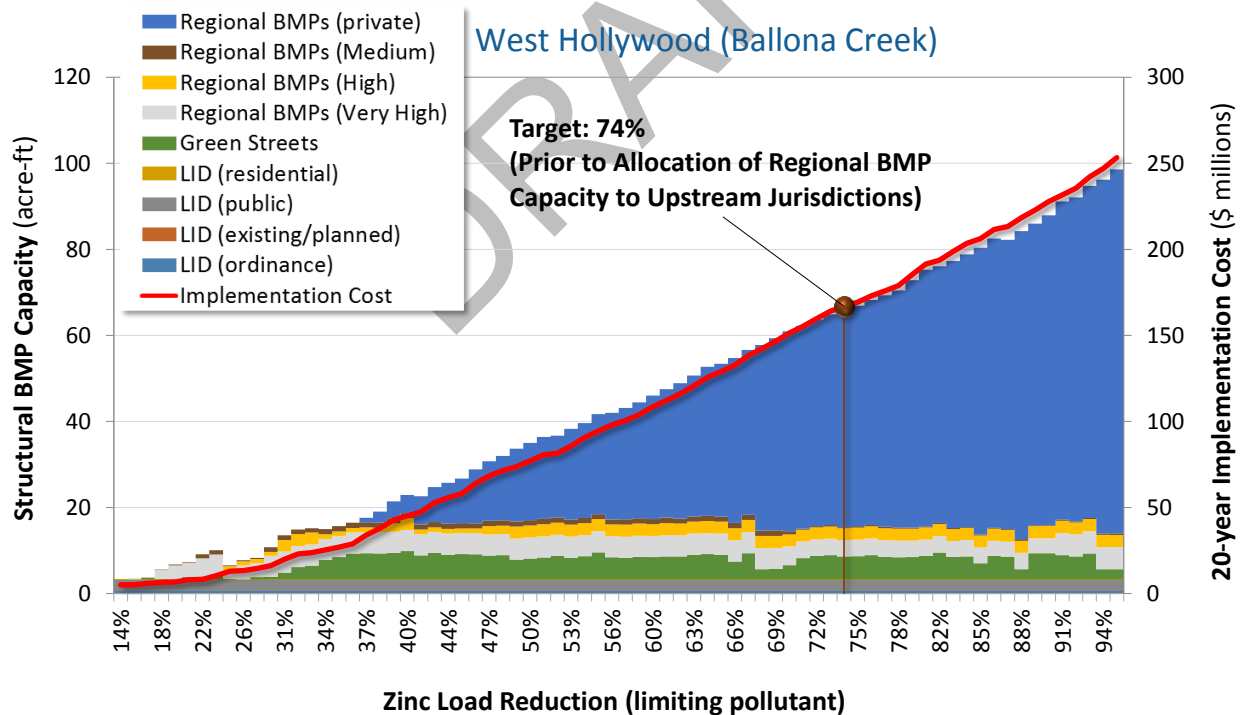


Figure 6G-55. BMP capacities: West Hollywood (Ballona Creek).

Appendix 6.H

Approach for Gradual Phasing from Average Interim Conditions to Critical Final Conditions

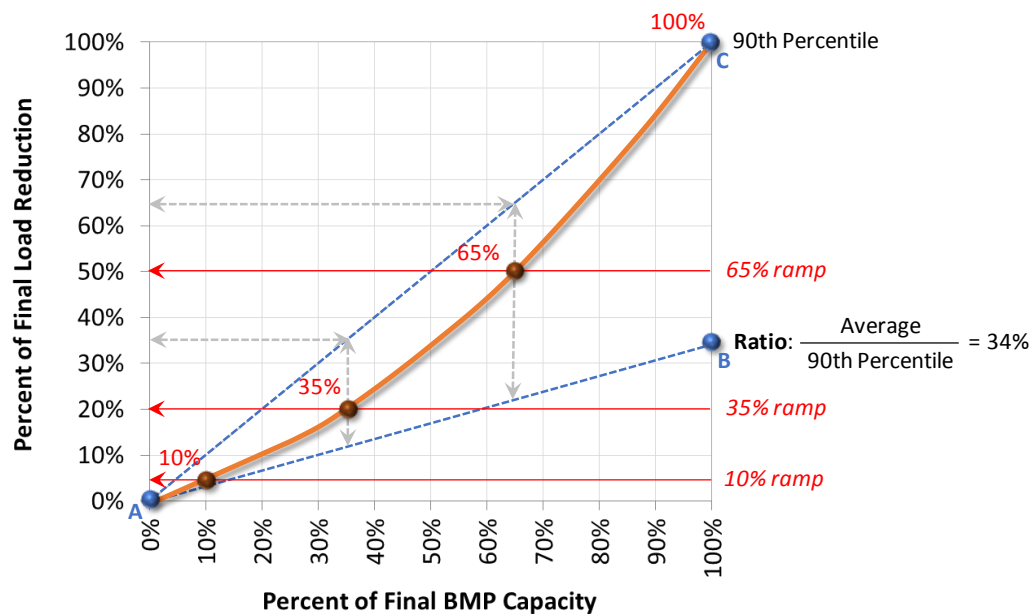
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The Regional Board guidance document¹⁹ stipulates that final compliance targets must be derived based on analysis of *critical* TMDL conditions (e.g., 90th percentile daily loading rates as was used for this RAA) while interim compliance may be based on *average* conditions, as follows:

For interim WQBELs and/or receiving water limitations, the percent reduction based on annual average baseline loading may be used to set targets/goals for BMPs/watershed control measures where such percent reduction based on the annual average baseline loading is consistent with interim requirements as set forth in Part VI.E and Attachments L-R. A gradual phasing of percent load reduction for interim WQBELs/RWLs to final WQBELs/RWLs shall be applied over the course of the implementation schedule.

The milestones analysis for this RAA includes the gradual phasing from interim (average) to final (critical) compliance. A conceptual illustration of the target ramp for this phasing is illustrated below. The percent BMP completion based on the final compliance target (critical conditions) is represented by the top blue line [segment A→C], while percent BMP completion based on the interim target (average conditions) is represented by bottom blue line [segment A→B]. The orange curve represents the “translator” for phasing of the pollutant reduction target from average to critical conditions to match the approach recommended by the RAA Guidelines.

In the example below, the load reduction required to achieve compliance under average conditions is 34% of the capacity need to achieve compliance under critical conditions (see right hand side of figure). For the RAA, 34% is the ratio of average to critical conditions that is used as the basis for phasing from interim to final (this percentage varies for each jurisdiction-assessment area).



¹⁹ Regional Board (Los Angeles Regional Water Quality Control Board). 2014. Guidelines for Conducting Reasonable Assurance Analysis in a Watershed Management Program, Including an Enhanced Watershed Management Program. LARWQCB, Los Angeles, CA.

For presentation of the RAA, the dynamic phasing from average to critical was *embedded* into the milestones trajectory curves by translating the y-axis values (which were originally based on the final reduction target), to percent reductions in terms the required *milestones* reductions (based on average conditions). In other words, the graphs and tables in Appendix D1 and D2 have already been phased such that the “Percent of Total Reduction” is directly reported.

In the section below, an example is presented where the 35% milestone mathematically represents 20% in terms of the final target reduction, the 65% milestone represents 50% in terms of the final target reduction, and the 100% milestone represents 100% of the final reduction target. These relative differences between interim and final % reductions are somewhat typical for the EWMP area.

Details of the Mathematical Approach for Phasing from Average to Critical Conditions

Consider the example average and final trajectories shown in the figure above. Assuming that the ratio of average to final is 34%, the following relationship can be used to calculate the equivalent final load reduction for the 35% and 65% interim milestones as shown in equations 1 and 2 below:

$$35\% \text{ Milestone} = 0.35(0.34) + 0.35[0.35 - 0.35(0.34)] = 20\% \quad (1)$$

$$65\% \text{ Milestone} = 0.65(0.34) + 0.65[0.65 - 0.65(0.34)] = 50\% \quad (2)$$

The generalized form of this relationship is a quadratic relationship with two constants b and a , representing the ratio of average to final and its corresponding inverse ratio, respectively, as shown in equations 3, 4, and 5:

$$y = x(0.34) + x[x - x(0.34)] \quad (3)$$

$$y = x(0.34) + x^2(1 - 0.34) \quad (4)$$

$$y = ax^2 + bx \quad (5)$$

As shown in equation 6, the expression can be rearranged as a generalized quadratic expression:

$$0 = ax^2 + bx + c \quad (6)$$

where $c = -y$

The quadratic formula, equation 7, is the inverse solution for x from equation 6:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad (7)$$

The dynamic target ramp was embedded into the milestones trajectory curves by translating the y-axis values (which were originally based on the final reduction target), to percent reductions in terms the required milestones reductions. As shown in equation 8, the resulting function yields y' , which

translates final reduction targets to interim milestones. As such, the “coefficient of variability” between average and final targets is implicitly reflected in the interim milestones. As BMP capacities approach 0, % reduction are based more on the average target; likewise, and as BMP capacities approach 100%, % reduction values are based on the final target.

$$y' = \frac{-Ratio \pm \sqrt{Ratio^2 + 4(1 - Ratio)y}}{2(1 - Ratio)} \quad (8)$$

Considering the example presented in equations 1 and 2 (where the ratio of average to final was 34%), the 35% milestone mathematically represents 20% of the final target reduction, the 65% milestone represents 50% of the final target reduction, and the 100% milestone represents 100% of the final reduction target. Variability diminishes as the ratio of average to final approaches 1.

Table 6H-15. Beverly Hills, Ballona Creek: RAA Output and EWMP Implementation Plan

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Appendix 7.A

Detailed Recipe for Final EWMP Compliance (Compliance Targets and EWMP Implementation Strategy)

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This appendix presents the detailed RAA output and EWMP Implementation Strategy. A series of tables are presented below, organized first by jurisdiction and then by watershed. The detailed tables are as follows

Table 7A-1. Beverly Hills, Ballona Creek: RAA Output and EWMP Implementation Plan	7
Table 7A-2. Culver City, Ballona Creek: RAA Output and EWMP Implementation Plan	7
Table 7A-3. Culver City, Centinela Creek: RAA Output and EWMP Implementation Plan	8
Table 7A-4. Culver City, Sepulveda Channel: RAA Output and EWMP Implementation Plan	10
Table 7A-5. Inglewood, Ballona Creek: RAA Output and EWMP Implementation Plan	11
Table 7A-6. Inglewood, Centinela Creek: RAA Output and EWMP Implementation Plan	12
Table 7A-7. Los Angeles, Ballona Creek: RAA Output and EWMP Implementation Plan	13
Table 7A-8. Los Angeles, Centinela Creek: RAA Output and EWMP Implementation Plan	14
Table 7A-9. Los Angeles, Sepulveda Channel: RAA Output and EWMP Implementation Plan	19
Table 7A-10. Santa Monica, Sepulveda Channel: RAA Output and EWMP Implementation Plan	20
Table 7A-11. Uninc. LA County, Ballona Creek: RAA Output and EWMP Implementation Plan	21
Table 7A-12. Uninc. LA County, Centinela Creek: RAA Output and EWMP Implementation Plan	22
Table 7A-13. West Hollywood, Ballona Creek: RAA Output and EWMP Implementation Plan	23

The following color-gradients and symbol legend applies to all tables in Appendix 7A:

- RED** = Subwatersheds with highest required runoff management volumes
- BLUE** = Subwatersheds with highest BMP capacities within a BMP category
- = BMP opportunity was not available for the subwatershed

Table 7A-16. Beverly Hills, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
105011	19.86	3.94	58%	0.29	---	2.29	0.44	15.86	0.00	0.00	0.00	0.00	18.9	3.94	22.8
105111	18.62	0.00	90%	0.19	---	1.08	0.33	8.13	0.00	0.00	0.00	6.95	16.7	0.00	16.7
105211	0.00	0.02	5%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.02	0.0
105311	1.14	0.25	48%	0.07	---	0.02	0.19	0.86	0.00	0.00	0.00	0.00	1.1	0.25	1.4
105411	0.55	0.31	37%	0.09	---	0.07	0.03	0.42	0.00	0.00	0.00	0.00	0.6	0.31	0.9
105511	0.00	0.07	6%	0.02	---	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.0	0.07	0.1
105611	0.27	0.13	37%	0.04	---	---	0.03	0.19	0.00	0.00	0.00	0.00	0.3	0.13	0.4
105711	0.24	1.32	6%	0.20	---	0.41	0.10	0.00	0.00	0.00	0.00	0.00	0.7	1.32	2.0
105811	0.05	0.02	21%	0.01	---	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.1	0.02	0.1
105911	0.14	0.57	7%	0.08	0.00	0.17	0.19	0.00	0.00	0.00	0.00	0.00	0.4	0.57	1.0
106011	0.00	0.00	5%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
108411	181.55	3.26	84%	0.29	---	1.18	0.51	8.96	2.40	0.00	0.00	0.00	13.3	3.26	16.6
108811	0.21	0.00	53%	0.00	---	---	0.01	0.04	0.12	0.00	0.00	0.00	0.2	0.00	0.2
109011	0.00	0.00	63%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
109111	35.34	1.57	43%	0.53	---	0.69	0.95	4.65	18.30	0.00	0.00	0.00	25.1	1.57	26.7
Total	258.0	11.5	73%	1.8	0.0	6.0	2.8	39.1	20.8	0.0	0.0	6.9	77.5	11.5	89.0

Table 7A-17. Culver City, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID		Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
100422	0.29	0.07	69%	0.00	---	---	0.00	0.20	0.04	0.00	0.00	0.00	0.2	0.07	0.3
100722	1.08	0.59	41%	0.04	0.85	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.9	0.59	1.5
100922	0.29	0.11	47%	0.01	0.31	---	0.02	0.01	0.00	0.00	0.00	0.00	0.4	0.11	0.5
101022	0.02	0.28	6%	0.01	0.00	---	0.03	0.00	0.00	0.00	0.00	0.00	0.0	0.28	0.3
101122	0.49	0.13	53%	0.01	0.74	---	0.03	0.06	0.00	0.00	0.00	0.00	0.8	0.13	1.0
101222	4.04	0.00	90%	0.05	---	0.27	0.10	0.73	0.00	0.00	0.00	2.52	3.7	0.00	3.7
101322	0.67	0.19	53%	0.01	---	---	0.01	0.34	0.16	0.00	0.00	0.00	0.5	0.19	0.7
101422	0.87	0.90	26%	0.04	0.47	0.11	0.10	0.44	0.00	0.00	0.00	0.00	1.2	0.90	2.1
101522	3.43	0.00	90%	0.07	---	0.08	0.00	0.41	0.00	0.00	0.00	2.22	2.8	0.00	2.8
101622	0.07	0.76	7%	0.04	---	---	0.11	0.00	0.00	0.00	0.00	0.00	0.1	0.76	0.9
101722	0.20	0.28	16%	0.04	---	0.04	---	0.15	0.00	0.00	0.00	0.00	0.2	0.28	0.5
101822	2.53	0.00	95%	0.02	---	0.05	0.01	0.88	0.00	0.02	0.00	1.14	2.1	0.00	2.1
101922	36.97	0.00	92%	0.12	---	1.03	0.26	0.41	1.29	0.03	0.00	9.30	12.4	0.00	12.4
102022	15.70	0.00	91%	0.10	---	0.27	0.12	2.11	1.74	0.91	0.00	2.81	8.1	0.00	8.1
102122	0.47	0.95	21%	0.03	0.29	0.09	0.00	0.06	0.00	0.00	0.00	0.00	0.5	0.95	1.4
102222	6.41	0.00	89%	0.11	---	0.40	0.12	1.72	0.00	0.07	0.00	2.71	5.1	0.00	5.1

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
104622	3.66	0.00	90%	0.06	--	0.01	0.04	1.00	0.00	0.00	0.00	1.88	3.0	0.00	3.0
104722	0.32	0.22	33%	0.02	0.12	0.16	---	0.00	0.00	0.00	0.00	0.00	0.3	0.22	0.5
104822	0.11	0.19	16%	0.04	---	0.04	0.00	0.06	0.00	0.00	0.00	0.00	0.1	0.19	0.3
104922	5.47	0.00	90%	0.04	---	0.49	0.02	1.10	0.00	0.00	0.00	2.91	4.6	0.00	4.6
106122	2.50	0.36	58%	0.05	1.52	0.00	0.00	0.62	0.00	0.00	0.00	0.00	2.2	0.36	2.6
106222	9.04	0.00	90%	0.11	0.26	0.42	0.05	1.78	0.00	0.00	0.00	5.35	8.0	0.00	8.0
106322	0.33	0.06	64%	0.00	0.32	---	---	0.00	0.00	0.00	0.00	0.00	0.3	0.06	0.4
106422	5.16	0.63	54%	0.07	0.61	0.41	0.07	0.86	0.00	0.10	0.00	0.00	2.1	0.63	2.7
106522	2.32	0.61	47%	0.07	1.10	---	0.03	0.91	0.00	0.00	0.00	0.00	2.1	0.61	2.7
106722	0.09	0.03	21%	0.01	---	---	0.01	0.03	0.00	0.03	0.00	0.00	0.1	0.03	0.1
106822	0.11	0.95	8%	0.04	0.09	---	0.04	0.00	0.00	0.00	0.00	0.00	0.2	0.95	1.1
106922	2.39	0.44	16%	0.11	1.06	0.14	0.08	0.00	0.00	0.00	0.00	0.00	1.4	0.44	1.8
108322	0.34	0.25	31%	0.01	0.14	---	---	0.19	0.00	0.00	0.00	0.00	0.3	0.25	0.6
109322	0.09	0.04	46%	0.00	0.09	---	0.00	0.00	0.00	0.00	0.00	0.00	0.1	0.04	0.1
117522	0.01	0.07	10%	0.00	---	0.01	---	0.00	0.00	0.00	0.00	0.00	0.0	0.07	0.1
Total	105.5	8.1	73%	1.3	8.0	4.0	1.3	14.1	3.2	1.2	0.0	30.8	63.8	8.1	71.9

Table 7A-18. Culver City, Centinela Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
102322	0.12	0.87	8%	0.03	0.06	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.2	0.87	1.1
102422	16.50	0.00	95%	0.22	0.60	0.23	0.37	3.81	0.00	0.11	0.00	7.19	12.5	0.00	12.5
102522	12.59	0.00	86%	0.06	--	0.06	0.01	0.01	0.00	0.37	0.00	2.51	3.0	0.00	3.0
102622	5.22	0.00	94%	0.04	--	0.00	--	0.00	0.00	0.01	0.00	4.08	4.1	0.00	4.1
102722	8.19	0.00	90%	0.09	--	0.70	--	0.58	0.00	0.00	0.00	4.96	6.3	0.00	6.3
102822	0.02	0.68	6%	0.05	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.68	0.7
Total	42.6	1.5	86%	0.5	0.7	1.0	0.5	4.4	0.0	0.5	0.0	18.7	26.3	1.5	27.8

Table 7A-19. Culver City, Sepulveda Channel: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
103122	4.66	0.00	84%	0.06	--	0.11	0.15	1.08	0.00	0.02	0.00	2.29	3.7	0.00	3.7
Total	4.7	0.0	85%	0.1	0.0	0.1	0.1	1.1	0.0	0.0	0.0	2.3	3.7	0.0	3.7

Table 7A-20. Inglewood, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
108037	11.55	0.00	74%	0.20	---	0.06	0.46	0.00	0.00	1.96	0.00	5.62	8.3	0.00	8.3
Total	11.6	0.0	74%	0.2	0.0	0.1	0.5	0.0	0.0	2.0	0.0	5.6	8.3	0.0	8.3

Table 7A-21. Inglewood, Centinela Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
102837	12.24	0.00	79%	0.15	0.01	0.00	0.23	4.69	0.00	0.00	0.00	4.35	9.4	0.00	9.4
102937	0.00	0.03	7%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.03	0.0
103037	110.41	0.00	87%	0.69	2.17	3.54	0.51	2.61	9.60	2.69	0.00	16.32	38.1	0.00	38.1
Total	122.6	0.0	86%	0.8	2.2	3.5	0.7	7.3	9.6	2.7	0.0	20.7	47.6	0.0	47.6

Table 7A-22. Los Angeles, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets Green Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID		Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
100149	0.00	0.02	6%	0.00	---	0.00	---	0.00	0.00	0.00	0.00	0.00	0.0	0.02	0.0
100449	1.71	2.18	16%	0.11	0.05	0.13	0.26	0.42	0.69	0.00	0.00	0.00	1.7	2.18	3.8
100549	0.00	0.00	53%	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
100649	24.11	0.00	96%	0.13	---	0.18	0.00	0.00	4.45	0.00	0.00	2.84	7.6	0.00	7.6
100749	0.67	0.66	26%	0.03	0.83	0.09	0.00	0.00	0.02	0.00	0.00	0.00	1.0	0.66	1.6
100849	0.62	0.33	37%	0.02	0.92	---	0.03	0.00	0.00	0.00	0.00	0.00	1.0	0.33	1.3
101049	4.26	1.06	44%	0.05	1.42	0.01	0.13	0.00	0.17	0.00	0.00	0.00	1.8	1.06	2.8
101249	0.39	5.56	6%	0.18	0.06	0.07	0.41	0.00	0.00	0.00	0.00	0.00	0.7	5.56	6.3
101349	3.91	1.87	26%	0.08	0.51	0.12	0.14	0.76	1.55	0.00	0.00	0.00	3.2	1.87	5.0
101449	0.00	0.00	7%	0.00	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
101849	8.79	5.77	30%	0.25	0.38	0.92	0.46	2.80	0.00	0.18	0.00	0.00	5.0	5.77	10.8
101949	0.02	0.01	5%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.01	0.0
102049	6.13	4.96	21%	0.24	0.49	---	0.40	1.56	0.00	0.28	0.00	0.00	3.0	4.96	7.9
102249	19.22	5.69	37%	0.25	0.15	0.40	0.38	1.88	0.00	2.62	0.00	0.00	5.7	5.69	11.4
104949	6.78	5.90	31%	0.30	0.19	0.19	0.62	6.00	0.00	0.01	0.00	0.00	7.3	5.90	13.2
105049	1.16	0.84	53%	0.04	0.04	---	0.10	1.56	0.00	0.00	0.00	0.00	1.7	0.84	2.6

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
105149	11.53	0.00	89%	0.21	0.53	0.02	0.10	2.89	0.02	0.01	0.00	5.85	9.6	0.00	9.6
105249	0.24	1.09	6%	0.19	0.43	---	0.02	0.00	0.00	0.02	0.00	0.00	0.7	1.09	1.8
105349	0.00	0.01	6%	0.01	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.01	0.0
105449	0.05	0.40	7%	0.05	0.15	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.2	0.40	0.6
105549	0.41	3.03	7%	0.40	3.36	---	1.09	0.00	0.00	0.00	0.00	0.00	4.9	3.03	7.9
105649	0.28	1.46	8%	0.10	0.33	---	0.23	0.00	0.00	0.00	0.00	0.00	0.7	1.46	2.1
105749	0.03	0.17	8%	0.01	0.02	---	0.03	0.00	0.00	0.00	0.00	0.00	0.1	0.17	0.2
105849	0.65	1.08	16%	0.14	1.06	0.99	0.14	0.00	0.00	0.00	0.00	0.00	2.3	1.08	3.4
105949	0.49	2.56	8%	0.19	0.57	0.35	0.49	0.00	0.00	0.00	0.00	0.00	1.6	2.56	4.2
106049	2.76	0.65	59%	0.11	---	8.41	0.06	0.00	0.00	0.00	0.00	0.00	8.6	0.65	9.2
106149	161.91	0.00	97%	0.64	2.33	0.67	0.61	0.00	0.00	4.66	0.00	25.86	34.8	0.00	34.8
106249	3.69	3.14	31%	0.13	0.03	0.09	0.23	3.25	0.00	0.00	0.00	0.00	3.7	3.14	6.9
106349	3.72	0.43	58%	0.05	1.71	0.00	0.07	2.03	0.00	0.00	0.00	0.00	3.9	0.43	4.3
106449	0.02	0.00	87%	0.00	0.00	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
106649	0.86	0.18	56%	0.02	0.43	---	---	0.00	0.00	0.05	0.00	0.00	0.5	0.18	0.7
106749	149.73	0.00	90%	0.88	2.22	3.85	1.20	0.06	0.00	12.68	0.00	27.63	48.5	0.00	48.5
106949	1.77	0.21	68%	0.04	0.91	0.27	---	0.28	0.00	0.00	0.00	0.00	1.5	0.21	1.7

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
107049	25.12	0.95	72%	0.11	---	2.21	0.07	0.00	0.69	0.35	0.00	0.00	3.4	0.95	4.4
107149	96.87	0.00	95%	0.49	1.04	0.80	0.49	4.35	0.00	1.35	0.00	46.66	55.2	0.00	55.2
107249	1.89	0.32	6%	0.02	---	---	0.00	0.00	0.00	0.25	0.00	0.00	0.3	0.32	0.6
107349	196.34	0.00	95%	1.38	3.53	4.57	0.42	2.48	0.00	13.14	0.00	79.64	105.2	0.00	105.2
107449	22.88	0.00	90%	0.23	1.00	0.75	---	3.49	0.00	0.67	0.00	9.37	15.5	0.00	15.5
107549	58.30	0.00	95%	0.65	1.32	0.62	0.00	5.09	0.00	4.89	0.00	23.94	36.5	0.00	36.5
107649	21.28	0.00	95%	0.23	0.62	0.10	0.63	8.09	1.77	0.00	0.00	6.37	17.8	0.00	17.8
107749	50.08	0.00	95%	0.44	2.17	1.24	0.55	0.00	1.68	1.57	0.00	22.43	30.1	0.00	30.1
107849	70.16	0.00	95%	0.69	0.07	0.98	0.94	0.00	0.00	4.50	0.00	38.54	45.7	0.00	45.7
107949	93.95	0.00	90%	0.56	0.09	0.73	0.57	0.01	10.42	3.21	0.00	17.00	32.6	0.00	32.6
108049	152.31	0.00	96%	1.20	0.03	2.66	2.23	0.01	1.29	8.96	0.00	53.49	69.9	0.00	69.9
108149	17.22	0.00	89%	0.22	0.04	---	0.50	1.41	0.00	1.52	0.00	7.28	11.0	0.00	11.0
108249	10.45	0.00	90%	0.11	---	0.03	0.17	0.96	0.00	1.20	0.00	3.97	6.4	0.00	6.4
108349	8.07	0.00	90%	0.07	0.17	0.05	0.03	1.45	0.00	0.00	0.00	4.94	6.7	0.00	6.7
108449	37.05	23.89	26%	1.03	0.38	0.75	1.49	22.80	2.81	0.26	0.00	0.00	29.5	23.89	53.4
108549	3.82	0.44	69%	0.04	1.82	---	0.04	1.33	0.00	0.00	0.00	0.00	3.2	0.44	3.7
108649	0.19	0.47	12%	0.03	0.02	---	0.07	0.04	0.07	0.00	0.00	0.00	0.2	0.47	0.7

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
108749	0.67	0.26	58%	0.02	0.01	---	0.08	0.80	0.03	0.00	0.00	0.00	0.9	0.26	1.2
108849	140.13	8.75	47%	1.70	1.41	3.38	3.28	18.85	18.77	1.04	0.06	0.00	48.5	8.75	57.2
108949	0.30	0.24	22%	0.01	0.00	---	0.01	0.07	0.00	0.01	0.00	0.00	0.1	0.24	0.3
109049	22.95	3.89	42%	0.29	0.26	0.12	0.64	6.84	9.09	0.00	0.00	0.00	17.2	3.89	21.1
109149	25.19	1.38	53%	0.33	1.40	0.04	0.99	2.62	10.16	2.30	0.00	0.00	17.8	1.38	19.2
109249	5.45	2.10	47%	0.08	0.15	---	0.06	2.78	1.14	0.00	0.00	0.00	4.2	2.10	6.3
109349	1.84	1.17	34%	0.07	2.16	0.12	0.05	0.00	0.00	0.00	0.00	0.00	2.4	1.17	3.6
109449	94.56	7.07	66%	0.39	0.27	2.11	0.57	0.00	2.00	0.04	0.00	0.00	5.4	7.07	12.5
109549	16.42	0.00	90%	0.16	0.13	---	0.31	6.18	0.00	0.03	0.00	6.82	13.6	0.00	13.6
109649	2.18	1.76	32%	0.08	0.30	0.01	0.16	1.66	0.00	0.00	0.00	0.00	2.2	1.76	4.0
109749	2.04	0.83	42%	0.04	0.62	0.00	0.06	1.39	0.00	0.00	0.00	0.00	2.1	0.83	2.9
109849	6.62	0.00	89%	0.06	---	0.03	0.01	2.21	0.00	0.00	0.00	3.13	5.4	0.00	5.4
109949	21.38	0.00	91%	0.16	0.01	0.15	0.15	4.09	0.00	1.47	0.00	3.91	9.9	0.00	9.9
110049	6.75	0.00	90%	0.05	---	0.23	0.00	2.36	0.00	0.00	0.00	3.03	5.7	0.00	5.7
110149	33.98	0.00	95%	0.32	0.07	0.21	0.58	1.93	0.00	1.29	0.00	13.33	17.7	0.00	17.7
110249	15.55	4.18	53%	0.64	0.26	0.19	1.15	17.35	0.00	0.21	0.00	0.00	19.8	4.18	24.0
110349	10.52	8.37	27%	0.50	0.20	10.50	0.47	4.67	0.86	0.13	0.00	0.00	17.3	8.37	25.7

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
110449	13.81	3.81	41%	0.49	0.30	0.40	0.87	5.92	0.00	0.29	0.00	0.00	8.3	3.81	12.1
110549	63.91	0.00	95%	0.41	0.18	0.42	0.20	8.66	0.00	4.42	0.00	14.36	28.6	0.00	28.6
110649	51.68	0.00	95%	0.29	1.35	0.45	0.00	2.35	10.31	0.80	0.00	25.45	41.0	0.00	41.0
110749	6.33	2.04	26%	0.06	0.58	0.01	---	0.92	3.60	0.00	0.00	0.00	5.2	2.04	7.2
110849	47.65	10.38	33%	0.71	0.21	1.57	0.87	9.68	5.73	5.86	0.00	0.00	24.6	10.38	35.0
110949	46.52	6.29	21%	0.40	0.01	0.64	0.42	2.12	23.26	2.75	0.00	0.00	29.6	6.29	35.9
111049	354.99	0.00	92%	1.11	0.32	4.61	0.52	0.05	5.28	4.37	0.00	44.48	60.7	0.00	60.7
111149	58.37	0.00	86%	0.44	0.13	0.65	0.38	0.11	3.53	2.87	0.00	22.92	31.0	0.00	31.0
111249	68.85	0.00	95%	0.53	0.13	0.46	0.50	5.35	0.00	2.87	0.00	32.63	42.5	0.00	42.5
111349	79.68	12.02	46%	0.80	0.07	1.11	0.85	13.80	0.00	7.15	0.00	0.00	23.8	12.02	35.8
111449	42.76	0.00	85%	0.31	3.32	0.12	0.08	1.53	9.53	0.05	0.00	15.95	30.9	0.00	30.9
117549	57.77	0.00	90%	0.58	3.74	0.24	0.58	11.80	0.00	0.22	0.00	23.82	41.0	0.00	41.0
Total	2,580.7	149.9	73%	23.4	49.0	60.0	29.2	211.1	128.9	100.6	0.1	585.6	1,187.9	149.9	1,337.7

Table 7A-23. Los Angeles, Centinela Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
102349	0.52	2.92	9%	0.12	0.55	---	0.13	0.00	0.00	0.00	0.00	0.00	0.8	2.92	3.7
102449	0.11	0.03	58%	0.00	0.08	---	0.00	0.00	0.00	0.00	0.00	0.00	0.1	0.03	0.1
102649	9.17	0.00	95%	0.12	0.03	0.01	0.23	2.08	0.00	0.00	0.00	4.25	6.7	0.00	6.7
102849	15.30	0.00	95%	0.13	0.68	---	0.16	3.67	0.00	0.00	0.00	7.32	11.9	0.00	11.9
102949	32.94	0.00	95%	0.41	0.20	1.59	1.03	10.26	0.00	0.23	0.00	9.39	23.1	0.00	23.1
103049	14.55	0.00	95%	0.18	---	---	0.57	0.52	0.01	0.86	0.00	8.73	10.9	0.00	10.9
Total	72.6	2.9	86%	1.0	1.5	1.6	2.1	16.5	0.0	1.1	0.0	29.7	53.5	2.9	56.5

Table 7A-24. Los Angeles, Sepulveda Channel: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
103149	25.97	0.00	95%	0.24	1.15	2.33	0.62	7.48	0.04	0.01	0.00	6.14	18.0	0.00	18.0
103249	356.70	0.00	86%	1.11	0.85	4.61	1.19	23.94	24.37	21.99	0.00	36.02	114.1	0.00	114.1
103349	36.03	0.00	95%	0.15	0.18	0.21	0.19	1.83	9.99	3.29	0.00	2.53	18.4	0.00	18.4
103449	145.01	0.00	87%	1.21	3.63	1.10	2.32	0.03	5.46	2.92	0.00	45.06	61.7	0.00	61.7
103549	21.73	0.56	60%	0.34	0.35	0.11	0.58	0.01	0.00	1.19	0.00	0.00	2.6	0.56	3.1
103649	41.40	0.00	84%	0.35	0.10	0.57	0.43	8.56	0.00	0.01	0.00	23.76	33.8	0.00	33.8
103749	56.80	3.70	67%	0.29	1.50	2.56	0.77	2.66	0.00	0.01	0.00	0.00	7.8	3.70	11.5
103849	16.49	0.19	58%	0.41	0.04	---	0.52	0.98	0.00	0.07	0.00	0.00	2.0	0.19	2.2
103949	7.47	0.14	47%	0.17	0.26	---	0.51	0.62	0.00	0.03	0.00	0.00	1.6	0.14	1.7
104049	2.57	1.51	37%	0.10	0.09	0.74	0.12	1.59	0.00	0.00	0.00	0.00	2.6	1.51	4.2
104149	0.64	0.43	26%	0.10	0.05	---	0.31	0.24	0.00	0.00	0.00	0.00	0.7	0.43	1.1
104249	0.05	0.44	6%	0.09	0.14	---	0.25	0.00	0.00	0.00	0.00	0.00	0.5	0.44	0.9
104349	2.77	1.92	32%	0.15	0.07	0.02	---	1.86	0.00	0.00	0.00	0.00	2.1	1.92	4.0
104449	1.25	1.01	32%	0.25	0.28	11.96	0.34	0.37	0.00	0.00	0.00	0.00	13.2	1.01	14.2
104549	0.08	0.56	7%	0.16	0.22	---	---	0.00	0.00	0.00	0.00	0.00	0.4	0.56	0.9
Total	715.0	10.5	82%	5.1	8.9	24.2	8.1	50.2	39.9	29.5	0.0	113.5	279.4	10.5	289.9

Table 7A-25. Santa Monica, Sepulveda Channel: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
103275	23.06	0.00	84%	0.14	---	0.67	0.19	1.74	9.23	0.24	0.00	4.58	16.8	0.00	16.8
Total	23.1	0.0	85%	0.1	0.0	0.7	0.2	1.7	9.2	0.2	0.0	4.6	16.8	0.0	16.8

Table 7A-26. Uninc. LA County, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
100183	0.00	0.00	0%	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
100383	0.00	0.03	6%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.03	0.0
100583	0.00	0.00	5%	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
100683	0.15	0.02	68%	0.00	---	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.3	0.02	0.3
101483	0.01	0.05	6%	0.01	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.05	0.1
101583	2.94	0.00	90%	0.05	---	0.12	0.00	0.40	0.00	0.00	0.00	1.82	2.4	0.00	2.4
101783	0.00	0.00	0%	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
106783	24.26	0.00	90%	0.51	---	0.11	0.78	0.00	0.00	8.44	0.00	8.10	17.9	0.00	17.9
106983	0.00	0.00	48%	0.01	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
108083	1.13	0.58	13%	0.03	---	0.26	0.08	0.00	0.00	0.10	0.00	0.00	0.5	0.58	1.0
108883	0.03	0.00	10%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
109183	0.11	0.00	58%	0.00	---	---	0.00	0.00	0.07	0.00	0.00	0.00	0.1	0.00	0.1
117583	0.36	0.29	26%	0.01	---	---	0.03	0.23	0.00	0.01	0.00	0.00	0.3	0.29	0.6
Total	29.0	1.0	73%	0.6	0.0	0.7	0.9	0.6	0.1	8.6	0.0	9.9	21.4	1.0	22.4

Table 7A-27. Uninc. LA County, Centinela Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets Green Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID		Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
102383	0.00	0.02	10%	0.00	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.02	0.0
102583	3.87	1.94	16%	0.21	---	---	0.29	0.33	0.00	1.58	0.00	0.00	2.4	1.94	4.3
102783	0.00	0.00	95%	0.00	---	---	---	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.0
102883	19.26	0.00	90%	0.58	1.33	1.44	0.66	6.35	0.00	0.00	0.00	6.89	17.3	0.00	17.3
103083	27.58	0.00	96%	0.42	---	0.83	0.71	0.00	1.91	0.87	0.00	8.72	13.5	0.00	13.5
Total	50.7	2.0	86%	1.2	1.3	2.3	1.7	6.7	1.9	2.5	0.0	15.6	33.1	2.0	35.1

Table 7A-28. West Hollywood, Ballona Creek: RAA Output and EWMP Implementation Plan

Subwatershed ID	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)												
	For Metals by 2021	For Bacteria by 2021	For Metals Attainment by 2021											For Bacteria Attainment by 2021	
	24-hour Volume Managed (acre-ft)	Additional 24-hour Volume to be Managed (acre-ft)	% Load Reduction Critical Condition	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)	Regional BMPs (private)	Total BMP Capacity (acre-ft)
				Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private			
108887	74.42	0.00	78%	0.18	---	0.68	0.01	0.00	1.79	0.13	0.00	26.06	28.8	0.00	28.8
109087	5.72	4.40	11%	0.14	---	0.27	0.00	0.34	3.06	0.00	0.00	0.00	3.8	4.40	8.2
109187	59.79	0.00	86%	0.24	---	1.44	0.16	3.83	2.69	0.44	0.18	21.11	30.1	0.00	30.1
109287	8.38	0.00	90%	0.06	---	0.07	0.03	1.18	1.94	0.00	0.00	3.22	6.5	0.00	6.5
Total	148.3	4.4	74%	0.6	0.0	2.5	0.2	5.3	9.5	0.6	0.2	50.4	69.2	4.4	73.6

Appendix 7.B

Subwatershed Maps with Control Measure Capacity

DRAFT

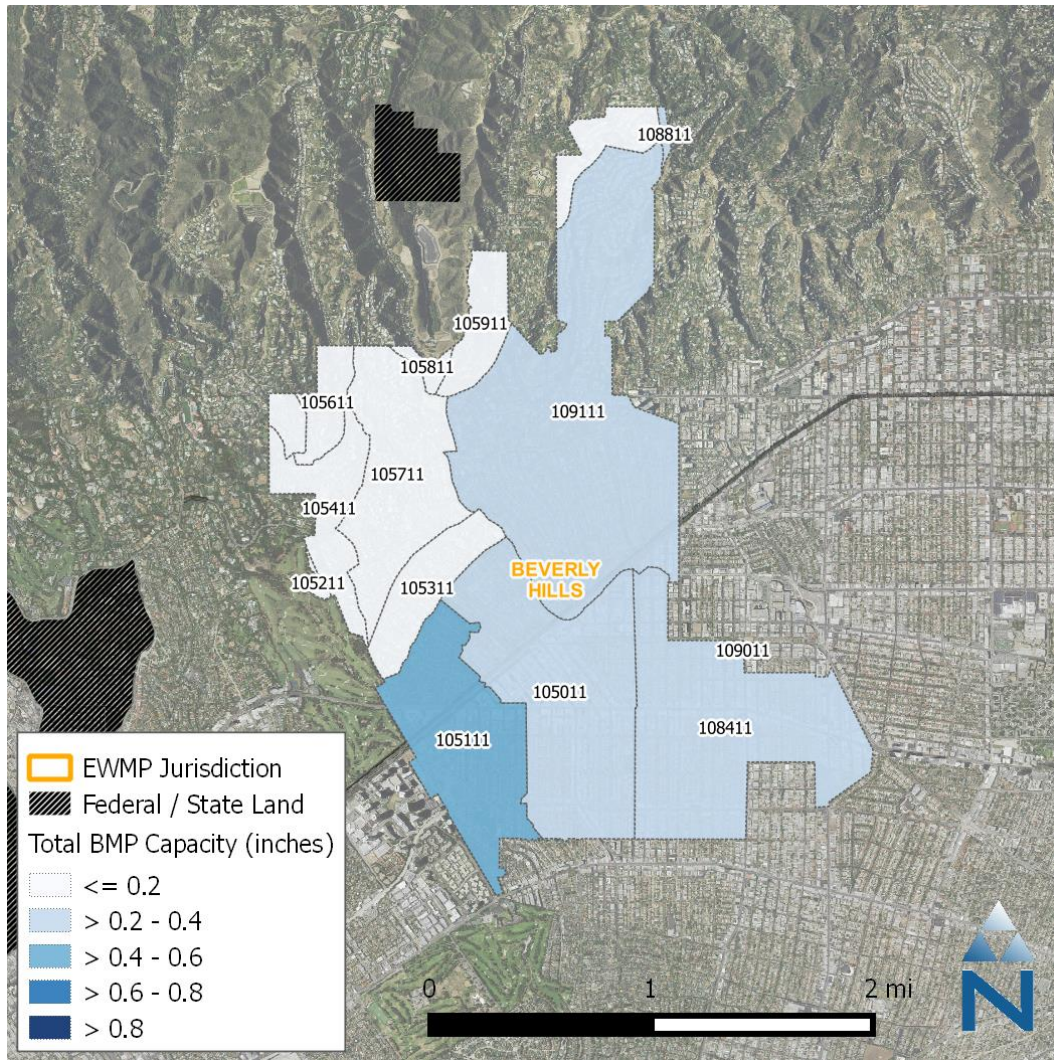


Figure 7B-1. Beverly Hills: Subwatershed Index Map.

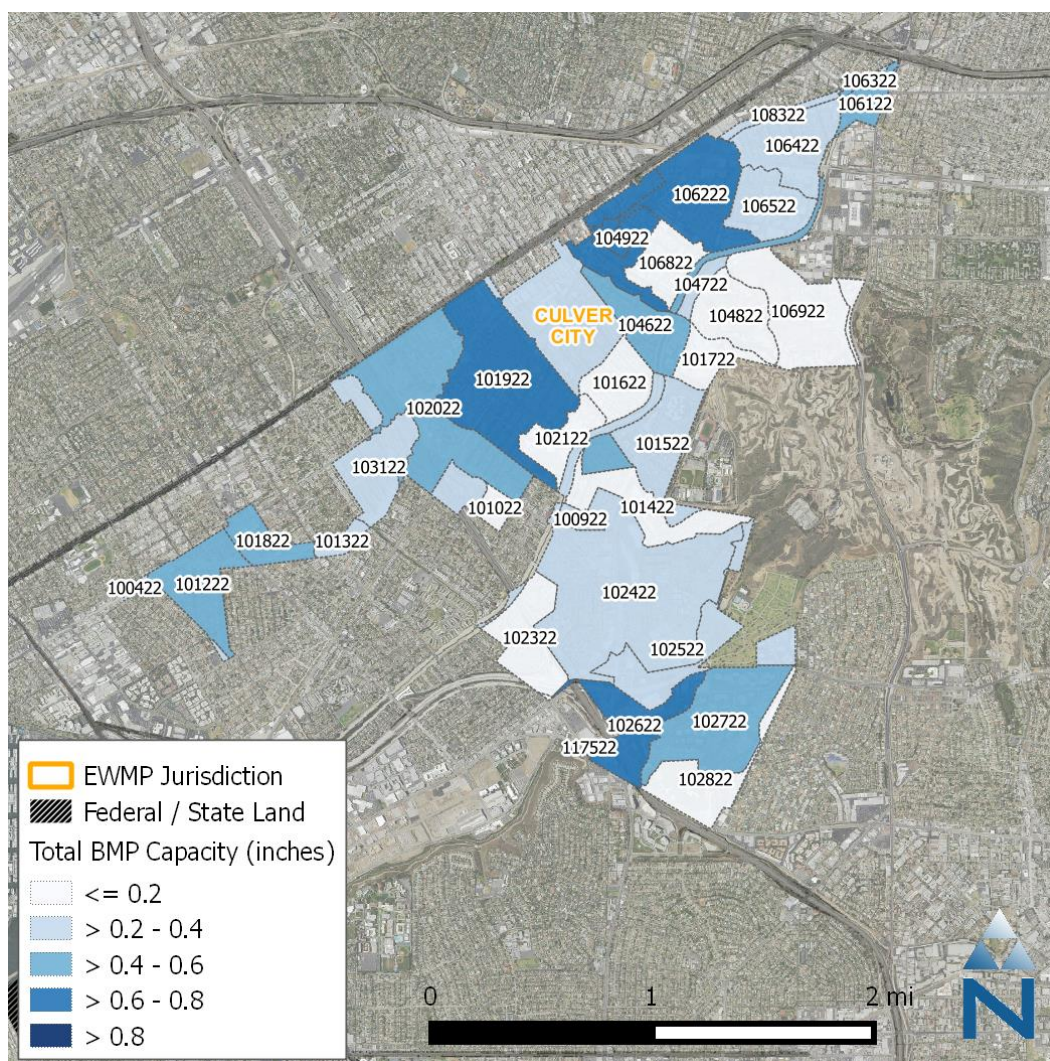


Figure 7B-2. Culver City: Subwatershed Index Map.

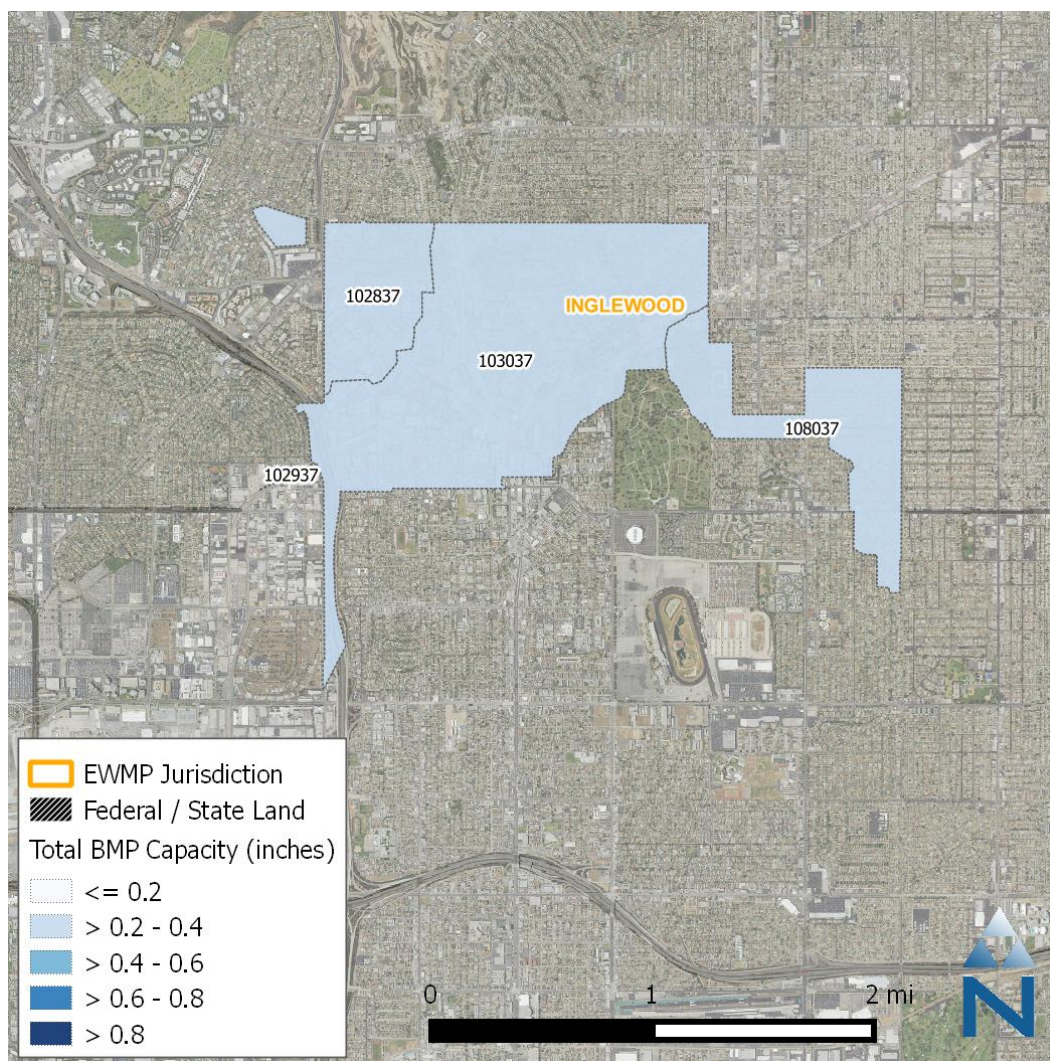


Figure 7B-3. Inglewood: Subwatershed Index Map.

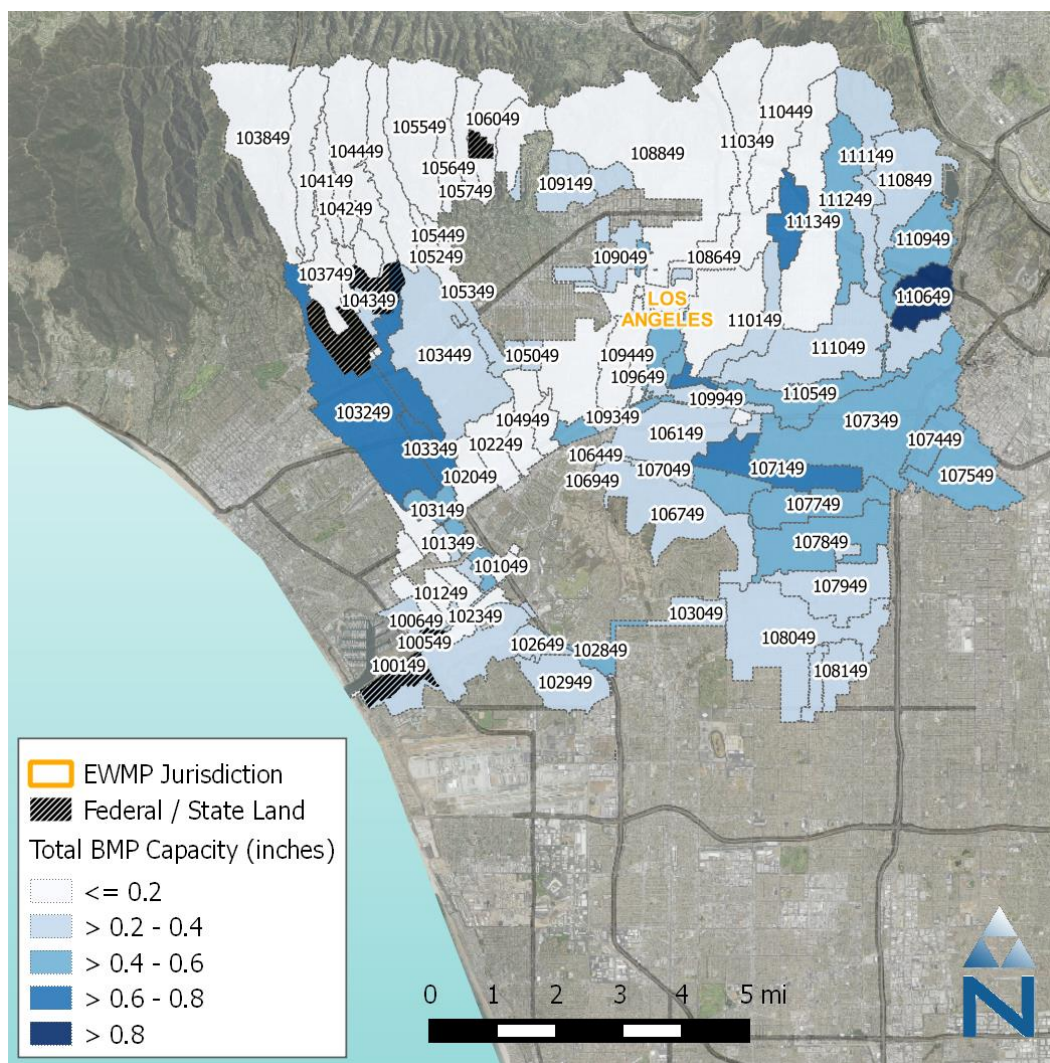


Figure 7B-4. Los Angeles: Subwatershed Index Map.

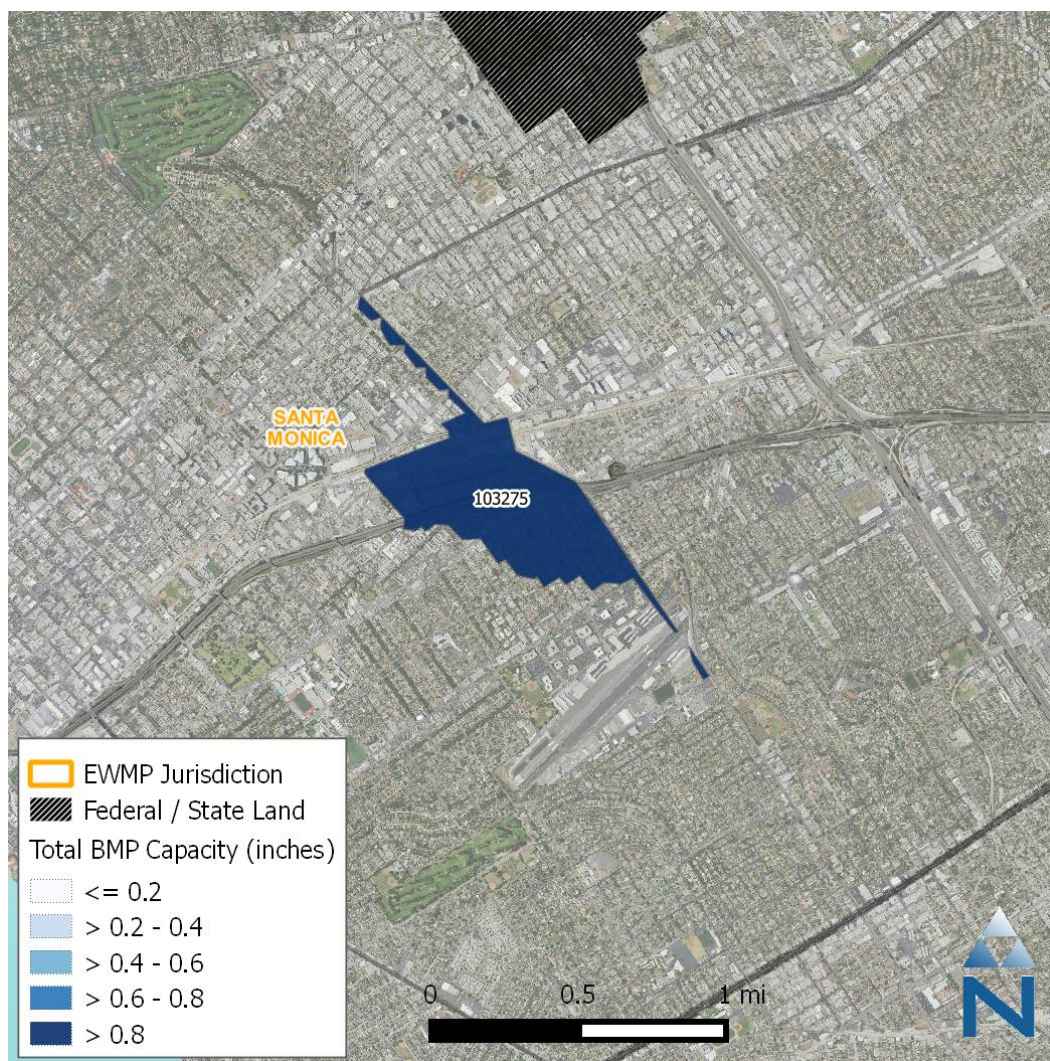


Figure 7B-5. Santa Monica: Subwatershed Index Map.

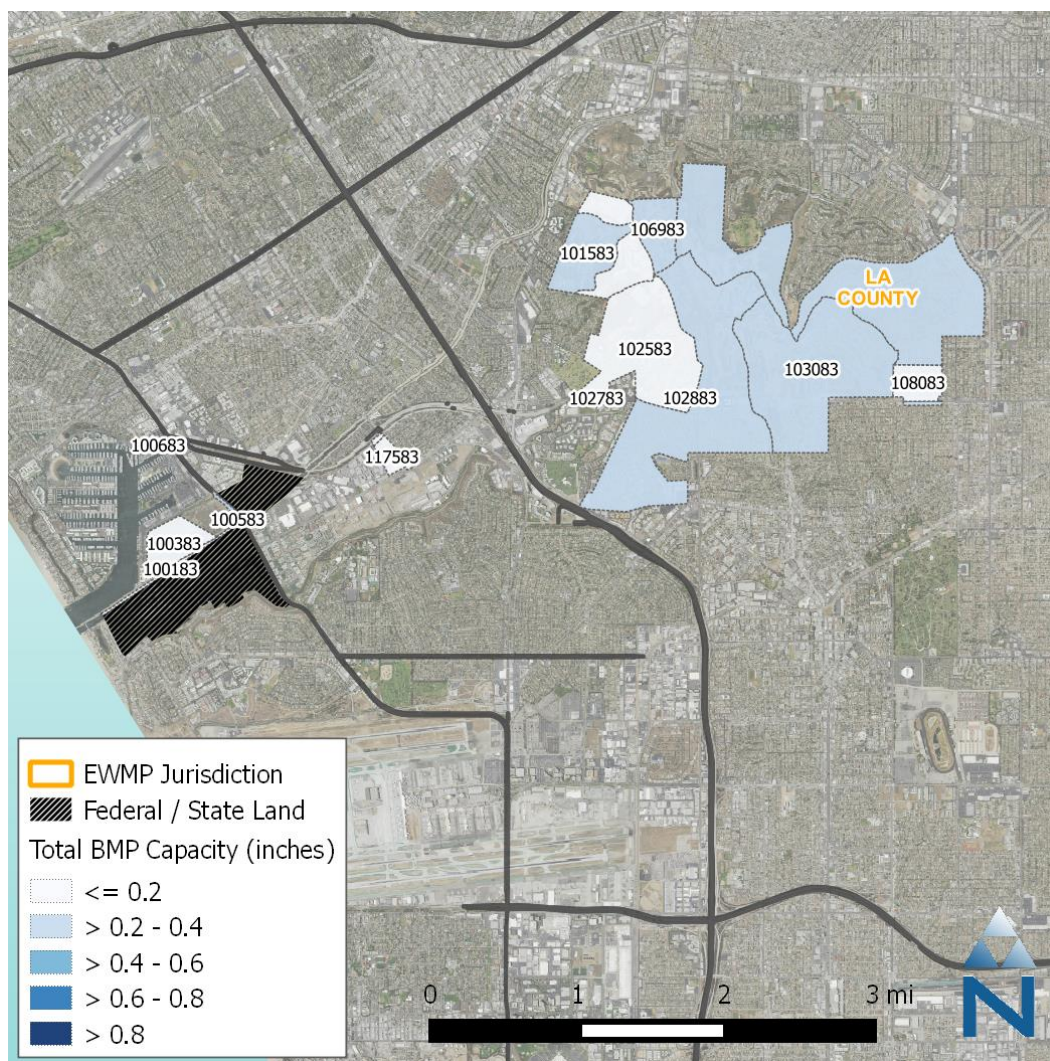


Figure 7B-6. Uninc. LA County: Subwatershed Index Map.

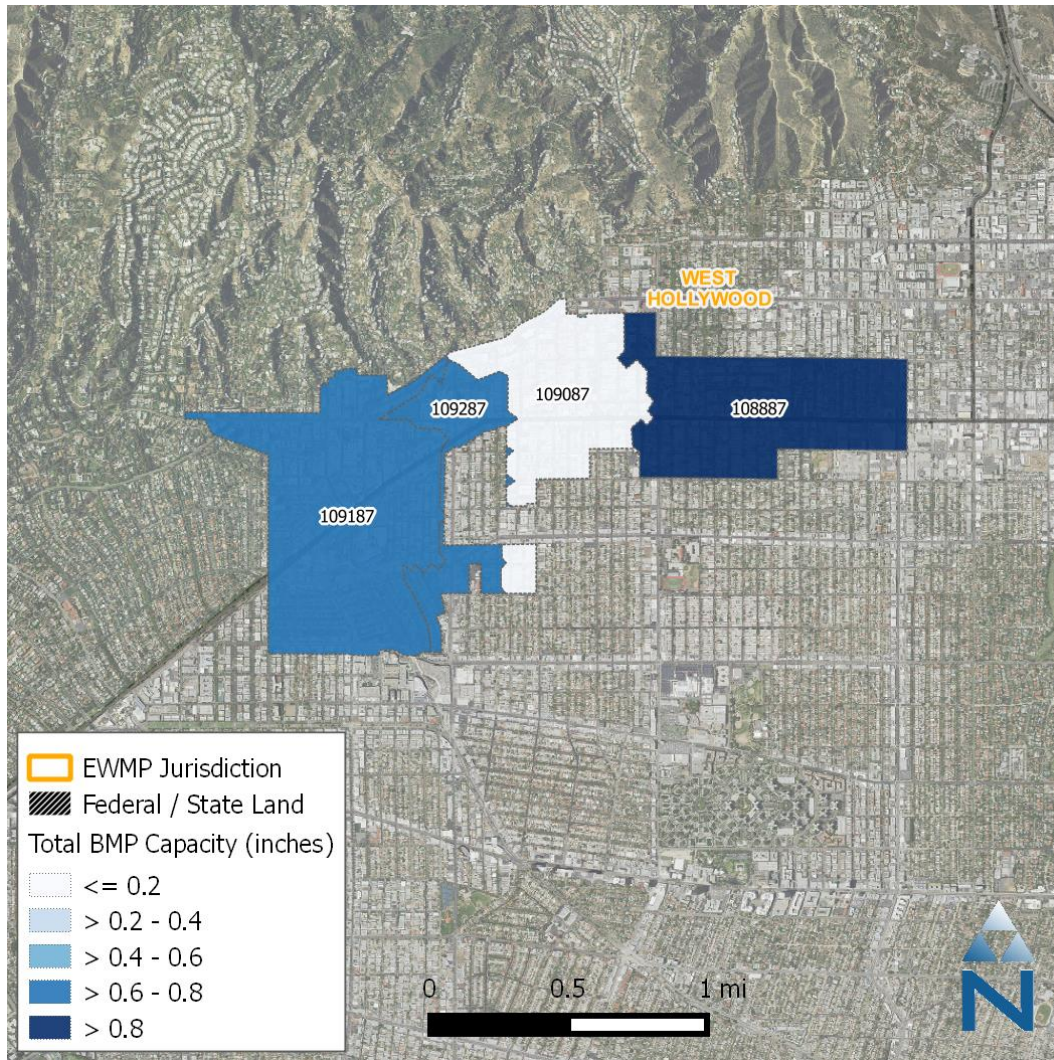


Figure 7B-7. West Hollywood: Subwatershed Index Map.

Appendix 7.C

Scheduling of Control Measures for EWMP and TMDL Milestones

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These tables present the Compliance Targets and EWMP Implementation Plan for each Ballona Creek Metals TMDL Milestone and final compliance with the Metals and Bacteria TMDL.

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Table 7C-7. West Hollywood: RAA Output and EWMP for Interim and Final Compliance	9

The following color-gradients and symbol legend applies to all tables in this appendix.

- RED** = Subwatersheds with highest required runoff management volumes
- BLUE** = Subwatersheds with highest BMP capacities within a BMP category
- = BMP opportunity was not available for the subwatershed

Table 7C-29. Beverly Hills: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
			Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	135.09	0.0	0.0	0.1	0.0	0.4	0.8	0.0	0.0	0.0	1.3
	50% Milestone (2016)	150.91	0.0	0.0	0.1	0.0	0.7	6.8	0.0	0.0	0.0	7.6
	75% Milestone (2019)	221.10	0.0	0.0	0.7	0.0	4.4	14.7	0.0	0.0	0.0	19.8
	Final Metals (2021)	257.99	1.8	0.0	6.0	2.8	39.1	20.8	0.0	0.0	6.9	77.5
	Final Bacteria (2021)	269.46	1.8	0.0	6.0	2.8	39.1	20.8	0.0	0.0	18.4	89.0
Total	---	269.5	1.8	0.0	6.0	2.8	39.1	20.8	0.0	0.0	18.4	89.0

Table 7C-30. Culver City: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS:		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	MEASURABLE AND ENFORCEABLE BMP GOAL		Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	19.81	0.0	8.0	0.2	0.0	0.7	1.1	0.0	0.0	0.0	9.9
	50% Milestone (2016)	51.62	0.0	8.0	0.3	0.0	0.8	2.1	0.2	0.0	0.0	11.4
	75% Milestone (2019)	79.72	0.6	8.0	2.5	0.3	8.6	3.2	1.2	0.0	6.7	31.1
	Final Metals (2021)	105.47	1.3	8.0	4.0	1.3	14.1	3.2	1.2	0.0	30.8	63.8
	Final Bacteria (2021)	113.60	1.3	8.0	4.0	1.3	14.1	3.2	1.2	0.0	39.0	71.9
Centinela Creek	25% Milestone (2012)	11.84	0.0	0.7	0.1	0.0	0.2	0.0	0.1	0.0	0.0	1.0
	50% Milestone (2016)	23.97	0.2	0.7	0.6	0.0	2.3	0.0	0.5	0.0	1.6	5.9
	75% Milestone (2019)	36.82	0.4	0.7	0.8	0.3	3.6	0.0	0.5	0.0	12.6	18.9
	Final Metals (2021)	42.63	0.5	0.7	1.0	0.5	4.4	0.0	0.5	0.0	18.7	26.3
	Final Bacteria (2021)	44.17	0.5	0.7	1.0	0.5	4.4	0.0	0.5	0.0	20.3	27.8
Sepulveda Channel	25% Milestone (2012)	0.90	0.0	---	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	50% Milestone (2016)	2.88	0.0	---	0.1	0.0	0.7	0.0	0.0	0.0	0.8	1.7
	75% Milestone (2019)	3.85	0.0	---	0.1	0.1	0.9	0.0	0.0	0.0	1.5	2.7
	Final Metals (2021)	4.66	0.1	---	0.1	0.1	1.1	0.0	0.0	0.0	2.3	3.7
	Final Bacteria (2021)	4.66	0.1	---	0.1	0.1	1.1	0.0	0.0	0.0	2.3	3.7
Total	---	162.4	1.9	8.6	5.1	1.9	19.5	3.2	1.7	0.0	61.5	103.4

Table 7C-31. Inglewood: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS: MEASURABLE AND ENFORCEABLE BMP GOAL		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
			Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	3.72	0.0	---	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3
	50% Milestone (2016)	5.68	0.0	---	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0
	75% Milestone (2019)	9.90	0.1	---	0.1	0.3	0.0	0.0	2.0	0.0	3.8	6.2
	Final Metals (2021)	11.55	0.2	---	0.1	0.5	0.0	0.0	2.0	0.0	5.6	8.3
	Final Bacteria (2021)	11.55	0.2	---	0.1	0.5	0.0	0.0	2.0	0.0	5.6	8.3
Centinela Creek	25% Milestone (2012)	51.64	0.0	2.2	0.2	0.0	0.1	3.2	0.0	0.0	0.0	5.6
	50% Milestone (2016)	81.90	0.0	2.2	0.4	0.0	0.5	6.4	0.7	0.0	0.0	10.1
	75% Milestone (2019)	93.27	0.0	2.2	0.5	0.0	0.9	9.6	1.2	0.0	0.0	14.4
	Final Metals (2021)	122.65	0.8	2.2	3.5	0.7	7.3	9.6	2.7	0.0	20.7	47.6
	Final Bacteria (2021)	122.68	0.8	2.2	3.5	0.7	7.3	9.6	2.7	0.0	20.7	47.6
Total	---	134.2	1.0	2.2	3.6	1.2	7.3	9.6	4.6	0.0	26.3	55.9

Table 7C-32. Los Angeles: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS:		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	MEASURABLE AND ENFORCEABLE BMP GOAL		Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	512.57	0.0	49.0	0.6	0.0	0.8	17.0	0.0	0.0	0.0	67.5
	50% Milestone (2016)	1,266.67	0.0	49.0	4.3	0.0	13.0	60.2	14.5	0.0	0.0	140.9
	75% Milestone (2019)	1,971.74	3.9	49.0	25.4	0.0	88.3	128.9	99.5	0.0	0.0	395.1
	Final Metals (2021)	2,580.75	23.4	49.0	60.0	29.2	211.1	128.9	100.6	0.1	585.6	1,187.9
	Final Bacteria (2021)	2,730.62	23.4	49.0	60.0	29.2	211.1	128.9	100.6	0.1	735.5	1,337.7
Centinela Creek	25% Milestone (2012)	18.96	0.0	1.5	0.2	0.0	1.4	0.0	0.3	0.0	0.0	3.3
	50% Milestone (2016)	40.97	0.4	1.5	1.1	0.4	10.0	0.0	1.1	0.0	3.1	17.6
	75% Milestone (2019)	57.83	0.7	1.5	1.3	1.1	13.3	0.0	1.1	0.0	15.5	34.5
	Final Metals (2021)	72.59	1.0	1.5	1.6	2.1	16.5	0.0	1.1	0.0	29.7	53.5
	Final Bacteria (2021)	75.54	1.0	1.5	1.6	2.1	16.5	0.0	1.1	0.0	32.6	56.5
Sepulveda Channel	25% Milestone (2012)	173.89	0.0	8.9	0.3	0.0	1.2	9.8	0.0	0.0	0.0	20.2
	50% Milestone (2016)	339.67	0.0	8.9	1.4	0.0	2.7	15.0	0.8	0.0	0.0	28.8
	75% Milestone (2019)	504.65	0.0	8.9	2.7	0.0	6.2	36.6	12.4	0.0	0.0	66.7
	Final Metals (2021)	714.95	5.1	8.9	24.2	8.1	50.2	39.9	29.5	0.0	113.5	279.4
	Final Bacteria (2021)	725.41	5.1	8.9	24.2	8.1	50.2	39.9	29.5	0.0	124.0	289.9
Total	---	3,531.6	29.5	59.4	85.8	39.5	277.8	168.8	131.2	0.1	892.1	1,684.1

Table 7C-33. Santa Monica: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS:		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	MEASURABLE AND ENFORCEABLE BMP GOAL											
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
			Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Sepulveda Channel	25% Milestone (2012)	10.09	0.0	---	0.0	0.0	0.1	3.0	0.0	0.0	0.0	3.2
	50% Milestone (2016)	13.84	0.0	---	0.1	0.0	0.2	6.2	0.1	0.0	0.0	6.5
	75% Milestone (2019)	16.83	0.0	---	0.1	0.0	0.3	9.2	0.1	0.0	0.0	9.7
	Final Metals (2021)	23.06	0.1	---	0.7	0.2	1.7	9.2	0.2	0.0	4.6	16.8
	Final Bacteria (2021)	23.06	0.1	---	0.7	0.2	1.7	9.2	0.2	0.0	4.6	16.8
Total	---	23.1	0.1	0.0	0.7	0.2	1.7	9.2	0.2	0.0	4.6	16.8

Table 7C-34. Uninc. LA County: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS:		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	MEASURABLE AND ENFORCEABLE BMP GOAL											
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
			Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	9.21	0.0	---	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.2
	50% Milestone (2016)	15.07	0.0	---	0.1	0.0	0.1	0.1	5.6	0.0	0.0	5.9
	75% Milestone (2019)	21.93	0.3	---	0.4	0.3	0.4	0.1	8.6	0.0	2.7	12.7
	Final Metals (2021)	28.98	0.6	---	0.7	0.9	0.6	0.1	8.6	0.0	9.9	21.4
	Final Bacteria (2021)	29.96	0.6	---	0.7	0.9	0.6	0.1	8.6	0.0	10.9	22.4
Centinela Creek	25% Milestone (2012)	17.02	0.0	1.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.0
	50% Milestone (2016)	22.55	0.0	1.3	0.2	0.0	0.3	1.3	0.2	0.0	0.0	3.3
	75% Milestone (2019)	39.68	0.6	1.3	1.5	0.5	4.5	1.9	2.5	0.0	5.2	18.0
	Final Metals (2021)	50.72	1.2	1.3	2.3	1.7	6.7	1.9	2.5	0.0	15.6	33.1
	Final Bacteria (2021)	52.68	1.2	1.3	2.3	1.7	6.7	1.9	2.5	0.0	17.6	35.1
Total	---	82.6	1.8	1.3	3.0	2.6	7.3	2.0	11.0	0.0	28.5	57.5

Table 7C-35. West Hollywood: RAA Output and EWMP for Interim and Final Compliance

Assessment Area	COMPLIANCE TARGETS:		EWMP IMPLEMENTATION PLAN: APPROACH TO ACHIEVE COMPLIANCE TARGETS, SUBJECT TO ADAPTIVE MANAGEMENT (BMP capacity expressed in units of acre-feet)									
	MEASURABLE AND ENFORCEABLE BMP GOAL											
	EWMP Milestone	24-hour Volume Managed (acre-ft)	Low-Impact Development				Streets	Regional BMPs				Total BMP Capacity (acre-ft)
			Ordinance	Planned LID	Public LID	Residential LID	Green Streets	Very High (public, owned)	High (public, owned)	Medium (public, non-owned)	Private	
Ballona Creek	25% Milestone (2012)	34.39	0.0	---	0.2	0.0	0.3	3.7	0.0	0.0	0.0	4.2
	50% Milestone (2016)	63.15	0.0	---	0.4	0.0	0.7	8.8	0.3	0.0	0.0	10.2
	75% Milestone (2019)	116.74	0.3	---	1.6	0.1	3.4	9.5	0.6	0.1	15.6	31.1
	Final Metals (2021)	148.30	0.6	---	2.5	0.2	5.3	9.5	0.6	0.2	50.4	69.2
	Final Bacteria (2021)	152.70	0.6	---	2.5	0.2	5.3	9.5	0.6	0.2	54.8	73.6
Total	---	152.7	0.6	0.0	2.5	0.2	5.3	9.5	0.6	0.2	54.8	73.6