



Granada Hills/Porter Ranch Water Disruption Incident – August 2025 – Final

After-Action Report/Improvement Plan

December 22, 2025

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INCIDENT OVERVIEW

Incident Name	Granada Hills/Porter Ranch Water Incident – August 2025
Incident Dates	August 5, 2025 – August 12, 2025
Scope	This incident involved: ☒ Power System ☒ Water System ☒ Joint System
Focus Area(s)	Prevention, Protection, Mitigation, Response, and Recovery
Capabilities	• Notification • Communication • Staffing • Roles and Responsibilities • Logistics • Training • Operations
Objectives	• To maintain safety for our crews, staff and the public. • Continue to safely maintain and restore services to our customers. • To assess infrastructure and facilities for damage and expedite repairs. • Continue to maintain situational awareness. • To inform internal and external partners, as well as the public.
Threat or Hazard	Major disruption to water infrastructure
Scenario	Valve failure upstream of a pump station cut off water to a major pipeline, causing a service outage across Granada Hills and Porter Ranch
Participating Organizations	Los Angeles Department of Water and Power, Los Angeles Fire Department, Emergency Management Department, Los Angeles Police Department, Los Angeles Department of Transportation, Los Angeles Department of Recreation and Parks
Point of Contact	Los Angeles Department of Water and Power Office of Emergency Management Mona Freels, Executive Director of Emergency Management 111 N. Hope Street Los Angeles, CA 90012, Room 1040 (213) 851-0773

EXECUTIVE SUMMARY

On August 5, 2025, Water System crews were making repairs at a pump station that connects to a 10-million-gallon water tank (Susana Tank) serving Granada Hills and Porter Ranch when Valve 112, a 24-inch gate valve controlling water flow, broke during repairs and failed to open. As a result, water flowing into a 54-inch-diameter pipe serving the area was cut off leading to a water service outage in the general area bounded by Rinaldi Avenue (south), Balboa Blvd (east), De Soto Ave (west) and the foothills to the north, necessitating immediate action to ensure public health and safety.

The Los Angeles Department of Water and Power (LADWP), in coordination with the Los Angeles Fire Department, Emergency Management Department and other partner agencies, activated emergency protocols to address the disruption. Key response actions included: removal of the broken Valve 112 and full restoration of water service to the Granada Hills and Porter Ranch neighborhoods, temporary deployment of intersystem pumps, issuing a conservation notice and boil water notice, deploying bottled and recycled water distribution sites, water delivery to vulnerable populations, establishing bathroom, shower and laundering facilities, and maintaining continuous communication with the public and elected officials.

The response demonstrated strong interagency collaboration, rapid deployment of resources, and effective use of communication tools such as multilingual alerts, social media, and GIS mapping. However, the incident also revealed critical areas for improvement, including delays in internal approvals, gaps in radio interoperability, inconsistent field-to-command communication, and logistical inefficiencies in food and equipment delivery. Additionally, repair work at the site of Valve 112 was complicated by the presence of multiple underground utilities (communications, gas, oil lines) and overhead power lines, requiring an extensive sloping and benching shoring system and excavation of 24 feet below ground. Extreme heat conditions throughout the response further challenged repair operations.

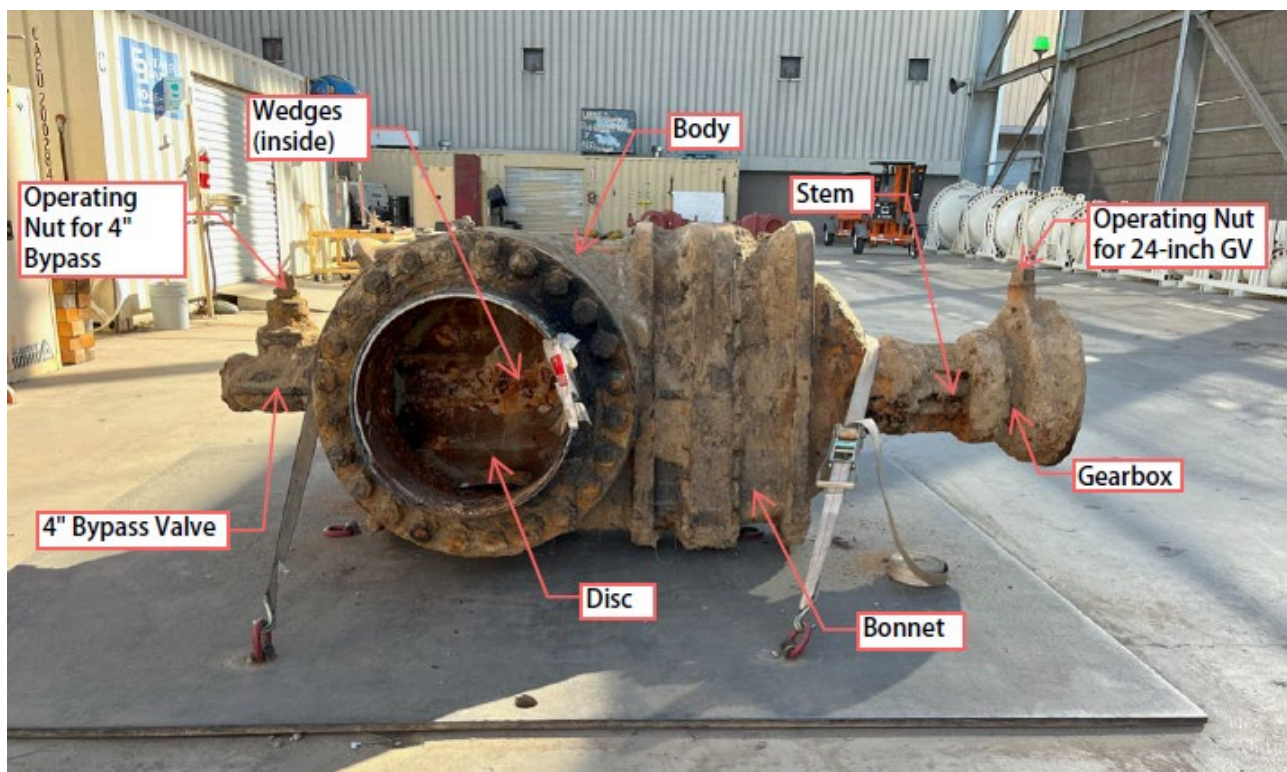
Cause of Failure:

LADWP investigation confirmed that Valve 112, installed in 1967, failed due to extensive tuberculation, corrosion, and a broken bronze valve stem caused by torsional stress during closing. Contributing factors included material fatigue, internal obstruction, and the valve's age. Bronze stems, common at the time, have since been replaced with steel stems consisting of higher strength properties.

Valve Stem Close-Up



Valve Bonnet



Impact to the Community and Communication Efforts:

The failure of a 24-inch gate valve on August 5, 2025, resulted in significant water service disruptions for Granada Hills and Porter Ranch neighborhoods. As the affected tank could not be refilled, water pressure declined, and by August 6th, many customers experienced low pressure or complete loss of service. Approximately 9,200 service connections – impacting as estimated 31,000 residents - were affected, and a Boil Water Notice was issued. Full water service and pressure were restored by August 10th; however, the Boil Water Notice remained in effect until August 12th, pending State Division of Drinking Water approval after two rounds of successful water quality testing. LADWP provided customers with flushing guidelines to clear household plumbing once the notice was lifted.

Throughout the incident, LADWP maintained robust communication via wireless emergency alerts, public messaging, website updates, GIS tools, social media, press releases, and direct outreach through phone calls, emails, and texts. Customer Service Division also conducted outbound calls to targeted groups of residents, small businesses, and account holders of large facilities, including the Los Angeles Unified School District (LAUSD). NotifyLA subscribers received periodic alerts, and LADWP coordinated with Council District 12, the City's Emergency Management Department, and the Department of Aging to prioritize vulnerable populations.

Customer support included bottled water distribution – over 2 million bottles – along with access to temporary facilities for showers, toilets, and laundry, ensuring essential needs were met for residents, businesses, and schools during the outage.

Temporary Measures:

To maintain water service during the outage, LADWP implemented several emergency and innovative measures to supply water to the affected communities of Granada Hills and Porter Ranch. Crews established temporary pumping to the Susana Trunk Line, which feeds the 10-million-gallon Susana Tank serving Service Zones 1615 and 1750. This was achieved through Inter-System Pumping (ISP), a process that transfers water from adjacent service zones using portable diesel-driven pumps. For this incident, water was pumped from Service Zone 1445 to Zones 1750 and 1615 via existing hydrants and regulator stations.

LADWP also partnered with Wildfire Water Solutions, leveraging proprietary high capacity pumping equipment to deliver water from Metropolitan Water District's (MWD) LA-25 connection to Service Zone 1750 as Sesnon Boulevard and Balboa Boulevard. This effort required installing two risers on the 54-inch Susana Trunk Line, routing 3,000 feet of 10-inch diameter lay flat hoses, and utilizing a vehicular traffic bridge as a conduit. LADWP crews worked around the clock to operate temporary pumps and fabricate custom components to connect hydrants, regulator stations, and trunk line

risers, ensuring continuous water supply to the impacted neighborhoods throughout the disruption.



Crews completing excavation (24 feet below ground) and pipe installation

Prevention Strategies:

To prevent similar water service interruptions in the future, LADWP has identified several areas for focus to improve our water infrastructure reliability such as strategic valve replacement, predetermined inter-system pumping locations, and long-term redundancy. Since 2006, LADWP has actively maintained a large valve replacement program to identify, inspect, prioritize, and proactively replace large system valves (16-inch and larger) that are critical to our distribution system to ensure functionality. The replacement process requires careful planning, permitting, coordination, and performed during the low water demand periods of the year.

Since the failed valve was installed in 1967, LADWP has greatly improved valve specifications to include more resilient and corrosion-resistant components, and implemented improved construction practices designed to provide a longer service life. Additionally, LADWP uses corrosion control measures, such as cathodic protection systems and modern coating systems to extend the life of the valve. Insulating joints are

also used to prevent contact of dissimilar metals thereby decelerating corrosion. For new large valves installed in highly corrosive soils, galvanic anodes are used to enhance cathodic protection.

LADWP also maintains an inventory of large valves and materials for emergency situations. For improved accessibility and safer future operations, replacement valves will be installed in a more manageable location, with two valves replacing the original single valve. During the recent disruption, LADWP implemented temporary ISP connections to maintain water pressure; future plans include pre-installing outlets at strategic points to expedite emergency connections. Additionally, LADWP is advancing the DeSoto Pump Station project, which will introduce system redundancy for the 1750-foot system serving Porter Ranch, reducing the risk of similar outages.

This After-Action Review (AAR) captures both the strengths and challenges observed during the response and outlines actionable recommendations to enhance preparedness and resilience for future incidents.

ANALYSIS OF CAPABILITIES

Aligning incident objectives and capabilities provides a consistent taxonomy for evaluation that transcends individual incidents to support preparedness reporting and trend analysis. Table 1 includes the incident objectives, aligned capabilities, and performance ratings for each capability as observed during the incident.

Objective	Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
To continue to maintain and restore services for our customers.	Roles and Responsibilities		X		
To assess infrastructure and facilities for damage and expedite repairs.	Roles and Responsibilities /Operations		X		
To maintain safety for our crews and staff.	Training	X			
Continue to maintain situational awareness.	Notifications/ Communication		X		
To inform internal and external partners, as well as the public.	Notifications		X		

Table 1. Summary of Core Capability Performance

Ratings Definitions:

Performed without Challenges (P): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. The performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. The performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the capability were not performed in a manner that achieved the objective(s).

The following sections provide an overview of the performance related to each incident objective and associated capability, highlighting strengths and areas for improvement. The strengths and areas for improvement for each capability aligned to this objective are described in this section.

Capability 1: Staffing

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: There was sufficient staff to support critical operations such as DEOC, WECC and EOC staffing, bottled water distribution, and field operations.

Strength 2: Staff across divisions demonstrated strong collaboration, knowledge-sharing, and helpfulness during the incident.

Strength 3: Roles were clearly defined, and staff understood their responsibilities, contributing to a well-organized response. The right personnel were present in decision-making spaces, including key operations and PIO leads.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Many staff found the long 12-hour shifts grueling, especially over multiple days, and 24-hour activations.

Analysis: Smaller divisions may not have enough personnel to rotate effectively, placing disproportionate strain on limited teams.

Corrective Action: Identify and train additional personnel in advance to support surge operations and reduce reliance on a small core team.

Area for Improvement 2: Over-reliance on division directors for key roles in the City EOC and DEOC was seen as too restrictive.

Analysis: During extended or multi-day activations, this limitation can lead to leadership fatigue, reduced decision-making agility, and bottlenecks in operational continuity.

Corrective Action: Expanding eligibility to assistant directors or other qualified staff would broaden the staffing pool and would also empower a broader group to step into leadership roles, promoting organizational equity, reduce burnout, and improve operational efficiency.

Area for Improvement 3: Lack of a system to solicit supplemental support: There was no streamlined way to identify, request, or communicate staffing needs (e.g. for bottled water distribution).

Analysis: Without a centralized or streamlined system to identify, request, or deploy additional staff will lead to delays in response, uneven staffing across functions, and missed opportunities to optimize available personnel.

Corrective Action: Develop a centralized staffing request platform (e.g. SharePoint form, internal portal, or Teams-based tracker) where section leads can post needs and staff can volunteer.

Area for Improvement 4: Each system within the Department needs to review and revise, if not establish a Continuity of Operations Plan (COOP) to facilitate the recovery phase.

Analysis: A COOP can guide an organization during the recovery phase of a disaster. The plan would enable all pertinent divisions within the Department to maintain operations with limited interruptions.

Corrective Action: Have all pertinent divisions within the Department review, revise, or establish a COOP.

Capability 2: Section Roles and Responsibilities

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: The Incident Command System (ICS) roles were clearly defined and well-organized. Staff had a strong understanding of their roles and were willing to adapt as needed.

Strength 2: The appropriate decision-makers were present, enabling timely and informed choices.

Strength 3: Sections received prompt support from leadership, enabling fast and accurate decision-making.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Need for ICS training, across the three Systems, to reinforce structure and readiness.

Analysis: The Incident Command System (ICS) is designed to provide a standardized, scalable framework for managing emergencies. When staff are not consistently trained or refreshed on ICS principles, confusion can arise around chain of command, information flow and decision-making authority.

Corrective Action: Establish a structured and recurring ICS training program tailored to all relevant divisions. This to include quarterly ICS refresher workshops, role-specific ICS modules, required onboarding ICS orientation for new or rotating staff, and annual tabletop exercises, followed by full-scale exercises simulating multi-agency emergency scenarios.

Area for Improvement 2: The Public Information Officer (PIO) was overwhelmed with multiple requests. Complicating the situation was the lack of clarity on the lead PIO authority when multiple agencies are involved, i.e. City EOC.

Analysis: Having just one person as LADWP PIO managing all public-facing communications during a complex incident is unsustainable. The volume of requests and complexity of the tasks lead to the PIO role becoming a bottleneck, and increasing the risk of delays, errors, or burnout. When multiple agencies are involved, unclear jurisdictional boundaries can lead to conflicting messages, duplicated efforts, or hesitation in releasing critical information. This undermines public trust and operational efficiency.

Corrective Action: Develop and implement a tiered PIO support model that includes designated deputies with well-defined roles, clear escalation paths, and redefined lead agency roles based on incident type.

Area for Improvement 3: Lack of visual identifiers (e.g. colored vests) made it difficult to quickly identify EOC section roles.

Analysis: In a high-tempo emergency operations environment, quick visual recognition of roles is essential for efficient coordination.

Corrective Action: Deploy a standardized, color-coded vest for all DEOC personnel, aligned with ICS section roles and train staff during exercises to use and recognize these identifiers as part of standard operating procedures.

Capability 3: Communications (Internal)

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Early engagement and regular updates with elected offices ensured alignment and trust from the outset.

Strength 2: Excellent internal emails kept employees informed about media and press releases, reducing confusion and rumors.

Strength 3: Succinct DEOC summaries and planning meetings helped streamline situational awareness.

Strength 4: Night shift updates and DEOC overlap briefings ensured smooth transitions between teams.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Microsoft Teams chat spaces were too busy and linear, making it hard to track critical updates.

Analysis: Platforms like Microsoft Teams are excellent for real-time updates, but become difficult to navigate when multiple threads, updates, and requests are posted rapidly. Important messages can be buried, missed, or duplicated.

Corrective Action: Implement a real-time, centralized situation report (SitRep) dashboard – hosted on SharePoint or a similar platform – that captures and organizes critical updates outside of chat threads.

Area for Improvement 2: Water Geographic Information System (GIS) service zone boundaries were outdated and did not reflect actual pressure zones.

Analysis: Accurate GIS data is critical in emergency responses. The outdated service zone boundaries that did not align with actual pressure zones likely caused delayed or misguided response actions, reduced situational awareness, and public confusion and regulatory risk.

Corrective Action: Launch a cross-functional initiative to audit, update, and maintain GIS service zone boundaries to ensure they accurately reflect current pressure zones and operational realities.

Area for Improvement 3: Interagency coordination and tools – City EOC agenda templates were not shared in advance, creating confusion about LADWP's role in executive briefings.

Analysis: Without knowing the structure or focus of the executive briefings, LADWP staff were unsure how to prepare, what updates to bring, or who should represent the department. This created last-minute scrambling and inconsistent messaging.

Corrective Action: Establish a formal process requiring the City EOC to distribute briefing agendas to all participating departments with enough lead time to prepare updates. This can include designating a liaison with LADWP to coordinate with the City EOC and request agendas proactively if not received, developing a briefing prep checklist for LADWP staff to ensure consistent, timely updates aligned with the agenda, and including this protocol in EOC activation SOPs and reinforce it during interagency exercises.

Capability 4: Notifications (External)

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Timely and multichannel customer notifications: Interactive Voice Response (IVR) was effectively used for outgoing customer messaging; emergency alerts were translated into Spanish and used consistently, ensuring accessibility for non-English-speaking communities; and social media was leveraged to share updates broadly and quickly.

Strength 2: Coordination with agencies and stakeholders: quick approval of notices by the Division of Drinking Water (DDW) enabled timely public health messaging; interaction with Los Angeles County Department of Public Health (LACDPH) helped clarify boil water notices and impacted areas; LAFD was looped in early and consistently, supporting unified messaging and operational coordination.

Strength 3: Inclusive and targeted outreach: EMPOWER data was used to identify and reach out to at-risk populations; availability of a Spanish translator ensured inclusive communication; and photos and explanations of valve sites helped the public understand the situation visually and contextually.

Strength 4: The StoryMap provided a critical communication tool during this emergency and subsequent boil water notice, allowing residents to check if their specific address was within the impacted zone. It served as a centralized source for important safety and health information, status of the water quality restoration and water quality testing results.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Field crews had to answer public questions without updated talking points or multilingual materials.

Analysis: Field crews having to answer to the public leads to inconsistent messaging and increased stress on field staff and can lead to delays in completing the work they are set out to do.

Corrective Action: Poster boards can be attached to department vehicles and field crews can direct the public to use the QR code to obtain the most updated information.

Area for Improvement 2: Continue to further evaluate the issuance of an Un-Safe Water Alert process. There may be opportunities to further expedite and streamline the notification process.

Analysis: The Boil Water Notice was publicly issued in 10 hours (@ 16:00 on 8/6), which is within the regulatory requirements of 24 hours. However, approval of this process could be further streamlined and improved.

Corrective Action: Develop and implement a streamlined, pre-authorized workflow for issuing time-sensitive public health messages, such as the Boil Water Notice, during emergencies. This can include utilizing the existing pre-approved message templates for common emergency scenarios (e.g., pressure loss, boil water, service restoration).

Area for Improvement 3: Public Information Officers (PIOs) were unfamiliar with the full range of alert tools and their limitations (e.g. character counts)

Analysis: This slowed down message drafting and approval which increased confusion during high-pressure moments.

Corrective Action: Provide pre-incident training and quick-reference guides for all alert platforms.

Area for Improvement 4: DEOC responders were notified by email only, no other redundant alerting.

Analysis: DEOC responders being notified only through email increases the risk of delayed awareness, especially during off-hours.

Corrective Action: Implement multi-channel internal alerting for DEOC responders (e.g., SMS, push notifications).

Capability 5: Logistics

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Rapid and scalable resource deployment: bottled water distribution was executed at scale with efficient delivery coordination; recycled water operations were quickly mobilized; and Supply Chain Services and Fleet Services collaborated effectively to scale inbound water deliveries and provide labor and equipment.

Strength 2: Strong field support and community services: field deployment was highly effective, covering water distribution, security, showers, laundry, and restroom facilities; access and functional needs (AFN) were considered, ensuring equitable access to services.

Strength 3: The 6th Floor WorkHub repurposed for the DEOC provided ample space and functionality for emergency coordination.

Strength 4: Food truck deployment by Logistics boosted morale during extended operations. Logistics supported both operational and human needs, balancing technical response with staff-well-being.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: DEOC Logistics Chief being bypassed and the presence of multiple logistics chiefs at various operation centers led to duplication and blurred responsibilities.

Analysis: When direct requests are made outside the established ICS Structure, it creates confusion, delays, and inefficiencies. It also undermines the authority of the Logistics Chief and disrupts the flow of resource coordination.

Corrective Action 1: Establish a centralized logistics coordination protocol that reinforces the authority of the DEOC Logistics Chief and eliminates role duplication across divisions. This can include creating a logistics request intake process (e.g. standardized request form or a shared tracking system) that all staff must use.

Corrective Action 2: Additional training for responders on the importance of routing requests through the DEOC Logistics Chief to maintain operational efficiency and conduct tabletop exercises that simulate logistics coordination challenges and reinforce proper channels.

Area for Improvement 2: Resource requests lacked detail and were not always routed through the DEOC Director, undermining prioritization and accountability.

Analysis: Resource requests missing key information create delays, misallocations, or incomplete fulfillment. This reflects the absence of a standardized request format or checklist. When resource requests are made directly to staff instead of the DEOC Director and Logistics Section Chief, this leads to inefficient prioritization, duplicated efforts, and reduced situational awareness for leadership.

Corrective Action: Develop a standardized resource request form (digital or paper) that includes required fields: item, quantity, location, timeframe, justification, and point of contact; and integrate request tracking into a shared dashboard or tool.

Area for Improvement 3: Emergency Command Post Vehicle (ECPV) was dropped off, but the setup was not complete, causing delays and confusion.

Analysis: There was confusion regarding who was responsible for completing the ECPV setup. While Fleet Services is tasked with delivering the vehicle, the setup of network services – including Wi-Fi and telecommunications – falls under the responsibility of Information Technology Services (ITS) Telecom.

Corrective Action 1: Implement an SOP for deploying the ECPV, which would include implementing a pre-deployment coordination call, developing a Setup SOP that would include step-by-step instructions and would be available in both digital and printed formats inside the ECPV.

Corrective Action 2: Provide cross-training for Logistics, Fleet and ITS personnel on the full setup process and exercise the deployment of the ECPV. Centralization of all

ECPV should be considered to ensure consistency of maintenance, set-up, deployment and operations support alignment across the enterprise.

Area for Improvement 4: Food and meal service: there was an instance of a missed food delivery, and a supervisor had to use a personal credit card; meal kits required refrigeration, which was limited on-site; P-Card restrictions delayed food access for field crews.

Analysis: Utilizing a personal credit card to purchase meals for crews can indicate a lack of contingency planning and unclear escalation procedures. Refrigeration limitations and meal kits that require refrigeration suggest a mismatch between food logistics and field conditions. P-Card restrictions delaying crew access to food highlight a procedural or policy barrier during emergencies.

Corrective Action: Establish a food service contingency plan by creating a backup vendor list or pre-approved emergency food providers, and include escalation protocols for missed deliveries (e.g., who to contact, how to authorize emergency purchases).

Capability 6: Training

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Water System facilitated ICS training for staff to be familiar with and support clarity in emergency roles and responsibilities.

Strength 2: Repeated emphasis on on-the-job learning shows strong informal training culture.

Strength 3: Experiential learning from real events enhanced preparedness and confidence.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Proper ICS training needs to be provided to all levels of response: Field Crews, Emergency Operations Center responders, and DEOC personnel.

Reference: Department Emergency and Continuity of Operations Plan (DECOOP)

Analysis: Essential employees that have a pre-identified emergency management role in the Department are required to complete the necessary FEMA Independent Study Courses for National Incident Management System (NIMS) Training: IS-100.c, IS-200.c, IS-700.b, IS-800.d.

Corrective Action: Knowledge assessment will be conducted to determine which employees will need to complete the FEMA Independent Studies courses: IS-100.c, IS-

200.c, IS-700.b, IS-800.d, or the appropriate level of training for the level of responsibilities.

Area for Improvement 2: Setting prioritized incident objectives and creating an Incident Action Plan helps facilitate an efficient and effective emergency response.

Analysis: Incident briefing meetings were often conducted via round table updates. The setting of prioritized incident objectives and responsible parties for each operational period would help focus efforts and reduce gaps and redundancies.

Corrective Action: Conduct training and tabletop exercises on setting incident objectives and creating Incident Action Plans.

Capability 7: Operations

Strengths:

Strength 1: LADWP implemented measures to temporarily pump water to the Susana Trunk Line which supplies water to the Susana Tank. The temporary pumping was accomplished by establishing Inter-System Pumping at strategic locations.

Strength 2: LADWP also utilized an external vendor, Wildfire Water Solutions, with innovative and proprietary equipment to set up high capacity pumps to supply water from MWD's LA-25 connection to Service Zone 1750', including installation of two risers on the 54-inch Susana Trunkline located at Sesnon Blvd and Balboa Boulevard and routing 3,000 feet of 10-inch diameter lay-flat hoses and using a vehicular traffic bridge that functions as a conduit to convey water.

Areas for Improvement:

Area for Improvement 1: Replace Valve 112 with two new valves to increase redundancy and resiliency in operations.

Analysis: Valve 112 is in a hazardous location near many other underground utilities and must be relocated for easier access and repair.

Corrective Action: Remove Valve 112 (completed August 10, 2025) and install two new valves within LADWP's Van Norman Complex property.

Area for Improvement 2: Evaluate the current Large Valve Replacement Program, identify the challenges, and improve current strategies in replacing inoperable large valves within the water infrastructure.

Analysis: Increasing efforts to identify inoperable large valves in the system and developing contingency plans are important to ensure reliability of infrastructure during emergencies.

Corrective Action: Create a Large Valve Task Force to address the Large Valve Program challenges and provide recommendations for improving the program.

Area for Improvement 3: Inter-system pumping equipment deployed during the response did not perform as expected.

Analysis: Several portable pumping units that were used to establish Inter-System Pumping connections stopped working due to crystallization of Diesel Exhaust Fluid (DEF). EPA's TIER 4 emission standards require new portable pumping equipment to have DEF as part of the system to reduce nitrogen oxide emissions. It was subsequently determined that equipment furnished with DEF requires running the units on a regular cycle to bring them up to operating temperatures to prevent fluid crystallization. LADWP's contractor (Wildfire Water Solutions) provided functional portable pumping equipment to support incident response.

Corrective Action: Water System implemented a maintenance program to run the TIER 4 units at an increased frequency to make sure that they are operational similar to the stationary equipment at pumping plants.

APPENDIX A: IMPROVEMENT PLAN

Capability	Issue/Area for Improvement	Corrective Action	Capability Element	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Capability 1: Staffing	Over-reliance on division directors of DEOC roles.	Expand eligibility to assistant directors or other qualified staff to reduce burnout and improve agility.	Staffing	OEM	OEM Staff	TBD	TBD
Capability 1: Staffing	No centralized system to request or deploy supplemental staff.	Develop a SharePoint or Teams-based staffing request tracker for section leads to post needs and staff to volunteer.	Staffing	OEM	OEM Staff	TBD	TBD

Capability 1: Staffing	COOP Plans were missing or outdated in some divisions.	Require all divisions to review, revise, or establish a COOP.	Planning	OEM	OEM Staff	TBD	TBD
Capability 2: Section Roles & Responsibilities	Lack of ICS training among responders led to role confusion.	Implement a mandatory ICS training curriculum including FEMA IS-100.c, 200.c, 200.c, 700.b, 800.d.	Training	OEM	OEM Staff	TBD	TBD

Capability 2: Section Roles & Responsibilities	The Public Information Officer (PIO) was overwhelmed with multiple requests. Complicating the situation was the lack of clarity on the lead PIO authority when multiple agencies are involved, i.e. City EOC.	Develop and implement a tiered PIO support model that includes designated deputies with well-defined roles, clear escalation paths, and redefined lead agency roles based on incident type	Training	Corporate Comms	Comms Staff	TBD	TBD
Capability 2: Section Roles & Responsibilities	Lack of visual identifiers for EOC roles.	Deploy standardized color-coded vest or badges aligned with ICS roles.	Training	OEM	OEM Staff	TBD	TBD
Capability 3: Communications	Teams chat threads were too busy to track critical updates.	Implement a centralized real-time SitRep dashboard (e.g., SharePoint) for critical updates.	Communications	OEM	OEM Staff	TBD	TBD
Capability 3: Communications	GIS service zone boundaries were outdated.	Launch initiative to audit and update GIS boundaries to reflect current pressure zones.	Communications	WETS	Water GIS Staff	TBD	Summer 2026
Capability 3: Communications	City EOC agendas are not shared in advance.	Establish a process for City EOC to distribute agendas early;	Communications	OEM	OEM Staff	TBD	TBD

		assign an LADWP liaison.					
Capability 4: Notifications	Field crews lacked updated talking points and multilingual materials.	Equip vehicles with poster boards and QR codes linking to real-time public information.	Notifications	Corporate Comms	Comms Staff	TBD	TBD
Capability 4: Notifications	Delays in Boil Water Notice approvals.	Utilize pre-approved templates and a streamlined approval workflow.	Planning	WS and Comms	WS and Comms Staff	TBD	May 2026
Capability 4: Notifications	PIOs unfamiliar with alert tools and limitations.	Provide pre-incident training and quick reference guides for all alerting platforms.	Training	LADWP Corporate Communications and Strategy	Comms Staff	TBD	TBD
Capability 4: Notifications	DEOC responders notified only via email.	Implement multi-channel alerting (e.g., SMS, push notifications)	Planning	OEM	OEM Staff	TBD	TBD
Capability 5: Logistics	DEOC Logistics Chief was bypassed; multiple chiefs caused confusion.	Reinforce DEOC Logistics Chief authority; implement standardized logistics intake request.	Logistics	Supply Chain Services	Logistics Staff	TBD	TBD
Capability 5: Logistics	Resource requests lacked detail and	Develop standardized	Logistics	OEM	OEM Staff	TBD	TBD

	bypassed DEOC Director	resource request forms and integrate into shared dashboard.					
Capability 5: Logistics	ECPV setup was incomplete; roles unclear	Create ECPV deployment SOP; cross-train Fleet and ITS staff.	Planning	OEM / ITS / Fleet	OEM Staff / ITS / Fleet	TBD	TBD
Capability 5: Logistics	Missed food delivery; P-Card restrictions; refrigeration issues.	Establish food service contingency plan with backup vendors and escalation protocols.	Logistics	Supply Chain	Fleet Staff	TBD	TBD
Capability 6: Training	ICS training not consistent across all levels.	Conduct knowledge assessment and assign FEMA ICS courses based on role.	Training	OEM	OEM Staff	TBD	TBD
Capability 6: Training	Setting of prioritized incident objectives and responsible parties for each operational period would help focus efforts and reduce gaps and redundancies.	Conduct training and tabletop exercises on setting incident objectives and creating Incident Action Plans.	Training	OEM	OEM Staff	TBD	TBD
Capability 7: Operations	Valve 112 is in a hazardous location near many other underground utilities and must be relocated for	Remove Valve 112 and install two new valves within DWP's Van Norman Complex property.	Infrastructure Reliability (Operations)	WDD	WDD Trunk Line Construction	August 2025	March 2026

	easier access and repair.						
Capability 7: Operations	Evaluate the current Large Valve Replacement Program, identify the challenges, and improve current strategies in replacing inoperable large valves within the water infrastructure.	Create a Large Valve Task Force to address the Large Valve Program challenges and provide recommendations in improving the program .	Infrastructure Reliability (Operations)	WDD	WDD Infrastructure Resiliency	August 2025	November 2025
Capability 7: Operations	Inter-system pumping equipment furnished with DEF requires running the units on a regular cycle to bring them up to operating temperatures to prevent fluid crystallization.	Implement a maintenance program to run the TIER 4 units on a regular cycle to make sure they are operational similar to the stationary equipment at pumping plants.	Infrastructure Reliability (Operations)	WOD	WOD Transmission Operations Staff	August 2025	September 2025

This IP is developed specifically for **LADWP** as a result of the August 2025 Granada Hills/Porter Ranch Water Incident occurring on 08/05/25 - 08/12/25.

APPENDIX B: ACRONYMS LIST

AAR	After Action Report
ATI	Advanced Technologies Infrastructure
BWN	Boil Water Notice
CCB	Customer Care Billing
CSD	Customer Service Division
DECOOP	Department Emergency & Continuity of Operations Plan
DEF	Diesel Exhaust Fluid
DEOC	Department Emergency Operations Center
DNB	Do Not Boil
DND	Do Not Drink
DSW	Disaster Service Worker
ECC	Energy Control Center
EMD	Emergency Management Department
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ESM	Electric Services Manager
ETB	Electric Trouble Board
ETR	Estimate Time of Restoration
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
FSO	Financial Services Organization
IAP	Incident Action Plan
ICS	Incident Command System
IP	Improvement Plan
IS	Independent Studies
ISP	Inter-System Pumping
ITS	Information Technology Services
IVR	Interactive Voice Response
JFB	John Ferraro Building
LACDPH	Los Angeles County Department of Public Health
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department

LAUSD	Los Angeles Unified School District
LIGA	Legislative and Intergovernmental Affairs
NIMS	National Incident Management System
NWS	National Weather Service
OEM	Office of Emergency Management
PCM	Power Construction & Maintenance
PED	Power Engineering Division
PDOC	Power Distribution Operations Center
PIO	Public Information Officer
PS	Power System
PSO	Power Supply Operations
PTD	Power Transmission & Distribution
SCS	Supply Chain Services
SEMS	Standardized Emergency Management System
WDD	Water Distribution Division
WECC	Water Emergency Command Center
WETS	Water Engineering and Technical Services
WO	Water Operations
WQ	Water Quality
WS	Water System