



OFFICE OF THE CITY ATTORNEY
ROCKARD J. DELGADILLO
CITY ATTORNEY

REPORT NO. R09-0148
APR 30 2009

REPORT RE:

**DRAFT ORDINANCE AMENDING THE MUNICIPAL CODE ESTABLISHING
WATER EFFICIENCY REQUIREMENTS FOR NEW DEVELOPMENT AND
RENOVATION OF EXISTING BUILDINGS IN THE CITY OF LOS ANGELES**

The Honorable City Council
of the City of Los Angeles
Room 395, City Hall
200 North Spring Street
Los Angeles, California 90012

Honorable Members:

This office has prepared and now transmits for your action a draft ordinance, approved as to form and legality. The draft ordinance amends the Los Angeles Municipal Code (LAMC) by adding Article V to Chapter XII, Sections 125.00 through 125.07, inclusive, which will require installation of specific high efficiency plumbing fixtures and appliances in all new construction and renovation projects in the City. In addition, the draft ordinance amends Section 94.103.1.2.9 of the LAMC (the Plumbing Code) to require installation of water efficient fixtures consistent with the mandates of City's Water Conservation Plan and Water Conservation Retrofit Program.

Background

The Board of Water and Power Commissioners has recommended that the Council enact the proposed ordinance requirements in order to ensure continued water supply reliability for the City of Los Angeles (City). The goal of these new requirements is to achieve significant water savings without adversely affecting customers' quality of life. The Los Angeles Department of Water and Power (LADWP) reports that voluntary conservation efforts, while significant, will not sufficiently mitigate increased water demand resulting from the City's projected growth. The proposed ordinance requirements are designed to ensure a sustained reduction in potable water use in all new construction from the first day of occupancy.

Currently, the City uses on average 580 million gallons of water per day. By expanding the City's water conservation policies to new construction, LADWP estimates that the required installation of high efficiency plumbing fixtures will both reduce water consumption in new construction by 20 percent and limit the projected increase in annual water demand. The proposed water conservation requirements are an important component of LADWP's overall plan to achieve the goal of meeting all new demands for water with a combination of water conservation and water recycling, as prescribed in the Mayor's City of Los Angeles Water Supply Action Plan. The proposed requirements were designed to support and complement the City's Green Building Program. LADWP anticipates that implementation will result in water efficiency point eligibility in the Leadership in Energy and Environmental Design certification process.

In general, the ordinance requirements follow Assembly Bill (AB) 715 standards which become mandatory effective January 1, 2014. This ordinance will accelerate transition to AB 715 Standards and California Green Building Standards in some areas. In particular, the draft ordinance requires the use of 0.5 gallon per flush urinals. High efficiency toilets will be mandatory in all new residential buildings and retrofits and shall not exceed 1.28 gallons per flush.

Council Rule 38 Referral

The draft ordinance is the product of consultation between staff of the Department of Building and Safety and the LADWP. Pursuant to Council Rule 38, this draft ordinance was sent to the General Manager of the Department of Building and Safety on March 20, 2009 for comment. No changes were recommended by the Department of Building and Safety. The draft ordinance was submitted to the Board of Water and Power Commissioners which gave its approval and recommended enactment by the Council.

Public Outreach and Comment

The LADWP reports it has received many support letters from engineers, contractors, plumbers, architects, and professional engineering and contractor associations regarding enforcing the use of high-efficiency plumbing products. In addition, all City departments that are part of the City's Integrated Resources Plan have expressed their support for these water conservation requirements.

If you have any questions regarding this matter, please contact Assistant City Attorney David Hotchkiss at (213) 367-4579. He or another member of this office will be available when you consider this matter to answer any questions you may have.

Sincerely,

ROCKARD J. DELGADILLO, City Attorney

By 

DAVID MICHAELSON
Chief Assistant City Attorney

DM:SDH:pj
Transmittal

ORDINANCE NO. _____

An ordinance adding Article V to Chapter XII, and amending Section 94.103.1.2.9, of the Los Angeles Municipal Code establishing water efficiency requirements for new development and renovation of existing buildings and mandating installation of high efficiency plumbing fixtures in residential and commercial buildings, and in the City of Los Angeles.

**THE PEOPLE OF THE CITY OF LOS ANGELES
DO ORDAIN AS FOLLOWS:**

Section 1. Article V of Chapter XII of the Los Angeles Municipal Code is added to read:

**ARTICLE V
WATER EFFICIENCY REQUIREMENTS FOR NEW DEVELOPMENT AND
RENOVATION OF EXISTING BUILDINGS**

SEC. 125.00. TITLE AND PURPOSE.

This Article shall be known as the **Water Efficiency Requirements** for the construction of new buildings and the installation of new plumbing fixtures in existing buildings in the City. The purpose of this Article is to impose water efficiency requirements for the construction of new buildings and the installation of new plumbing fixtures in existing buildings to minimize the effect of any water shortages to the customers of the City; and, by means of this Article, to adopt provisions that will reduce the consumption of water over an extended period of time, thereby extending the available water required for customers while reducing hardship on the City and the general public to the greatest extent possible, voluntary conservation efforts having proved to be insufficient.

SEC. 125.01. DECLARATION OF POLICY.

It is hereby declared that it is in the interest of the City to advance water efficiency measures for new development in the City. To enhance the sustainability of the City's water supply, water resources available to the City shall be put to the maximum beneficial use to the extent possible.

SEC. 125.02. DEFINITIONS AND STANDARDS.

For purposes of this Article the following terms are defined as follows based on recognized industry terms. Other definitions relating to plumbing fixtures are contained in the City Plumbing Code.

1. **"ASME"** is the American Society of Mechanical Engineers.

2. **“Commercial Pre-rinse Spray Valves (PRSV)”** are assemblies consisting of a flexible hose and spray head for attachment to a faucet with a built-in diverter. Commercial kitchen pre-rinse spray valves shall be equipped with an integral automatic shut off.
3. **“Cooling Tower”** is a large exterior heat exchanger that transfers heat from condenser water to the outside air.
4. **“CSA”** is the Canadian Standards Association.
5. **“Cycles of concentration”** is the accumulation of dissolved minerals in a cooling tower recirculating water.
6. **“Dual Flush”** means a toilet that has two flush modes, one at 1.1 gallons per flush or less and one at 1.6 gallons per flush or less.
7. **“Energy Star®”** is a government-backed program helping businesses and individuals protect the environment through energy efficiency.
8. **“High Efficiency Toilet”** is a toilet that flushes with no more than 1.28 gallons of water. A dual flush toilet is equivalent to a high efficiency toilet.
9. **“High Efficiency Urinal”** is a fixture that flushes with no more than 0.5 gallons of water. A non-water use urinal is a high efficiency urinal.
10. **“IAPMO”** is the International Association of Plumbing and Mechanical Officials.
11. **“Kitchen or Bar Sink Faucet”** is a device opening that drains water into an approved receptacle in domestic or commercial installations. Faucets that drain into other types of sinks, such as clinic sinks, floor sinks, service sinks and other similar sinks are not included.
12. **“Lavatory Faucet”** is a faucet that drains into a lavatory basin in a domestic or commercial installation.
13. **“Metering Faucet”** is a faucet that after actuation dispenses water of a predetermined volume or for a predetermined period of time. The volume or cycle duration can be fixed or adjustable.
14. **“Non-Water Urinals”** are plumbing fixtures that are designed to receive and convey only liquid waste (urine) through a trap seal and into the gravity drainage system without the use of water for such function. Zero-water, Water-less or Water-free urinals are equivalent terms for Non-water urinals.

15. **“Potable Water”** is water that is satisfactory for drinking, culinary, and domestic purposes that meets the requirements of the health authority having jurisdiction.
16. **“Private or Private Use”** refers to plumbing fixtures in residences and apartments, private bathrooms in hotels and hospitals, and restrooms in commercial establishments where the fixtures are intended for the use of a family or an individual.
17. **“Public or Public Use”** means all uses of fixtures or structures that are not defined as private or private use.
18. **“Self-Closing Faucet”** is a faucet designed to close itself as the activating mechanism is released.
19. **“Single-Pass Cooling Systems”** are systems within which water is circulated only once to cool equipment before disposal.
20. **“US EPA”** is the United States Environmental Protection Agency.
21. **“Water Closet, Electro-Hydraulic Tank Type”** is a water closet of the siphonic or washdown type that utilizes motors, pumps, and controllers to assist the flushing action by monitoring and controlling the flush and dictating the exact discharge from the tank into the bowl. All electro-hydraulic tank type water closets shall have a maximum effective flush volume of not more than 1.28 gallons (4.8 liters) of water per flush in accordance with ASME A112.19.2/CSA B45.1 or ASME A112.19.14 and shall also be listed to the EPA WaterSense Tank-Type High Efficiency Toilet Specification. The effective flush volume for dual flush toilets is the composite, average flush volume of two reduced flushes and one full flush.
22. **“Water Closet, Gravity”** is a water closet that is designed to flush the bowl by gravity. All gravity type water closets shall have a maximum effective flush volume of not more than 1.28 gallons (4.8 liters) of water per flush in accordance with ASME A112.19.2/CSA B45.1 or ASME A112.19.14 and shall also be listed to the EPA WaterSense Tank-Type High Efficiency Toilet Specification. The effective flush volume for dual flush toilets is the composite, average flush volume of two reduced flushes and one full flush.
23. **“Water Closet, Pressure-Assist Type”** is a water closet with a pressure vessel installed within its tank that uses water supply pressure to compress entrapped air. When the flushing mechanism is activated, the energy stored in the compressed air is released, causing a surge of water into the bowl. All pressure-assist type water closets shall have a

maximum effective flush volume of not more than 1.28 gallons (4.8 liters) of water per flush in accordance with ASME A112.19.2/CSA B45.1 or ASME A112.19.14 and shall also be listed to the EPA WaterSense Tank-Type High Efficiency Toilet Specification. The effective flush volume for dual flush toilets is the composite, average flush volume of two reduced flushes and one full flush.

24. **“Water Factor”** is the number of gallons of water per cycle per cubic foot (ft³) that a clothes washer uses. The Water Factor for a clothes washer (residential or commercial) shall be calculated by the quantity of water in Liter/Gallon (L/G) used to wash each cubic meter (m³) or each cubic foot (ft³) of machine drum capacity. The Water Factor for a residential dishwasher shall be calculated by the quantity of water use in L/G per full machine wash and rinse cycle.

SEC. 125.03. REQUIREMENTS.

Effective December 1, 2009, all plumbing installations in new buildings and installations of new plumbing fixtures in existing buildings shall meet the following requirements:

(a) Toilets

All toilets installed shall be high efficiency fixtures. The maximum flush volume for high efficiency toilets shall not exceed 1.28 gallons of water (effective) per flush (gpf).

(b) Urinals

All urinals installed shall be high efficiency fixtures. The maximum flush volume of high efficiency urinals shall not exceed 0.5 gallon of water per flush. Effective October 1, 2010, the maximum flush volume of high efficiency urinals shall not exceed 0.125 gallon of water per flush.

(c) Faucets

All faucets in public restrooms must be self-closing. The flow rate for all indoor faucets shall be 2.2 gallons per minute (gpm) except as follows:

- The maximum flow rate for private or private use lavatory faucets shall be 1.5 gpm (5.6 Lpm).
- The maximum flow rate for public use lavatory faucets, shall be 0.5 gpm. Exception: Metering faucets shall deliver not more than 0.25 gallon (1.0 liter) of water per cycle.

- The maximum flow rate for a pre-rinse spray valve installed in a commercial kitchen to remove food waste from cookware and dishes prior to cleaning shall be 1.6 gpm (6.0 Lpm).

(d) Showerheads

All showerheads must be low-flow with a maximum flow rate that does not exceed 2.0 gallons per minute. This requirement shall not apply to any emergency showerhead installed for health or safety purposes.

(e) Dishwashers

1. The maximum water use for high efficiency commercial dishwashers shall be in accordance with Table 1.

**TABLE 1
HIGH EFFICIENCY COMMERCIAL DISHWASHER WATER USE**

Type	High-Temperature Maximum gallons per rack	Chemical- Maximum gallons per rack
Conveyer	0.70	0.62
Door	0.95	1.16
Undercounter	0.90	0.98

2. The maximum water use per washing cycle for high efficiency domestic dishwashers shall be 5.8 gallons.

All installed dishwashers must be Energy Star® rated.

(f) Cooling Towers

All cooling towers must be operated at a minimum of 5.5 cycles of concentration.

(g) Use of Single-Pass Cooling Systems

Single-pass cooling systems are strictly prohibited for use in devices, processes, or equipment installed in commercial, industrial, or multi-family residential buildings. This prohibition shall not apply to devices, processes, or equipment installed for health or safety purposes that cannot operate safely otherwise.

SEC. 125.04. AUTHORIZATION.

The various officers, boards, departments, bureaus and agencies of the City are hereby authorized and directed to immediately implement the applicable provisions of this Article upon the effective date hereof.

SEC. 125.05. APPLICATION.

The provisions of this Article shall apply to all customers and properties served by the Department of Water and Power wherever situated, and shall also apply to all property and facilities owned, maintained, operated or under the jurisdiction of the various officers, boards, departments, bureaus or agencies of the City.

SEC. 125.06. EXEMPTIONS.

Buildings for which building plans were accepted by the Department of Building and Safety and a fee paid prior to the effective date of this Article are exempt from this Article.

Any exemption from the requirements of this Article requires written approval from the Department of Water and Power. Such exemption will only be granted for existing buildings where use of High Efficiency fixtures is infeasible because their installation will compromise public health, safety, or welfare. Any petition for exemption must be accompanied by a registered engineer's report documenting the need for such exemption and such exemption must be approved in writing by the Department of Water and Power.

SEC. 125.07. SEVERABILITY.

If any section, subsection, clause or phrase in this Article or the application thereof to any person or circumstances is for any reason held invalid, the validity of the remainder of the Article or the application of such provision to other persons or circumstances shall not be affected thereby. The City Council hereby declares that it would have passed this Article and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases or the application thereof to any person or circumstances be held invalid.

Sec. 2. Section 94.103.1.2.9 of the Los Angeles Municipal Code is amended to read:

SEC. 94.103.1.2.9. HIGH EFFICIENCY FIXTURES.

(a) **Residential.** Whenever new fixtures are installed, all water closets, shower heads, faucets and dishwashers shall be High Efficiency fixtures installed in accordance with the regulations of the City's **Water Conservation Plan**. A plumbing

permit is not required for the installation of High Efficiency water closets, shower heads, faucets and dishwashers in existing one and two family dwelling units when done as part of the City's "**Water Conservation Retrofit Program**" pursuant to the City's water conservation regulations. These permit exempted installations shall be limited to the replacement of non-water efficient water closets, shower heads, faucets and dishwashers with new High Efficiency water closets, shower heads, faucets, and dishwashers installed on the existing rough-in plumbing outlets. Plumbing permits shall be required for all High Efficiency fixtures in new buildings. This Code Section does not waive the requirement for a licensed plumbing contractor to perform the installation of a High Efficiency water fixture in an apartment unit or non-owner-occupied single-family dwellings.

(b) Commercial. Whenever new fixtures are installed, all water closets, urinals, shower heads, faucets and dishwashers shall be High Efficiency fixtures installed in accordance with the regulations of the City's **Water Conservation Ordinance**. A plumbing permit shall be obtained for both new and replacement installations of all High Efficiency water closets, urinals, and dishwashers to confirm that the new installation or replacement is in accordance with the regulations of the City's **Water Conservation Ordinance**. In all commercial occupancies, a Qualified Installer, as defined in Section 94.219.0 shall perform the installation of any High Efficiency water fixture or appliance.

Sec. 3. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy, either in a daily newspaper circulated in the City of Los Angeles or by posting for ten days in three public places in the City of Los Angeles: one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; and one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

I hereby certify that this ordinance was passed by the Council of the City of Los Angeles, at its meeting of _____.

KAREN E. KALFAYAN, City Clerk

By _____ Deputy

Approved _____

Mayor

Approved as to Form and Legality

ROCKARD J. DELGADILLO, City Attorney

By  for

S. DAVID HOTCHKISS
Assistant City Attorney)

Date _____

File No. _____