
File ID: 2022-02042

12/6/2022

Discussion Item 22.

An Ordinance Amending Section 15.24.030 and Adding Section 15.24.040 and Section 15.24.050 to the Sacramento City Code to Adopt Local Amendments to the California Building Standards Code Relating to Alternate Water Systems; a Resolution to Study the Costs and Programmatic Requirements of On-site Treatment and Reuse of Nonpotable Water (Passed for Publication 11/29/2022; Published 12/02/2022)

File ID: 2022-02042

Location: Citywide

Recommendation: 1) Approve Environmental Exemption (per CEQA Guidelines Section 15061(b)(3) -no potential for causing significant effect on the environment; Section 15307 - action by regulatory agency to assure the maintenance, restoration, or enhancement of a natural resource; Section 15308 - action by regulatory agency to assure the maintenance, restoration, enhancement or protection of the environment); 2) adopt an **Ordinance** amending section 15.24.030 and adding section 15.24.040 and section 15.24.050 to the Sacramento City Code to adopt local amendments to the California Building Standards Code relating to Alternate Water Systems; and 3) adopt a **Resolution** to study the costs and programmatic requirements for on-site treatment and reuse of nonpotable water.

Contact: Yvette Rincon, Chief of Staff to the Director of Utilities, (916) 808-1806, yrincon@cityofsacramento.org, Department of Utilities, Matt Hertel, Principal Planner, (916) 808-7158, mhertel@cityofsacramento.org, Laura Tuller, Associate Planner, (916) 808-3546, ltuller@cityofsacramento.org; Community Development Department.

Presenter: Yvette Rincon, Chief of Staff to the Director of Utilities, (916) 808-1806, yrincon@cityofsacramento.org, Department of Utilities

Attachments:

- 1-Description/Analysis
- 2-Alternate Water Systems Ordinance -Redline
- 3- Alternate Water Systems Ordinance-Clean
- 4-Resolution- Studying the Costs and Programmatic Requirements of On-site Treatment and Reuse of Nonpotable Water

Additional Description/Analysis

Issue Detail: The City Council adopted Resolution No. 2021-0166 concurrent with the New Building Electrification Ordinance in June 2021 and directed staff to evaluate opportunities for the expansion of water conservation standards for buildings as a means of accelerating the just transition of labor segments that may be impacted by implementation of all-electric new construction requirements. This Alternate Water Systems (Dual Plumbing) Ordinance (Ordinance) (Attachment 3) emerged from staff recommendations and Law and Legislation Committee direction, following completion of the Dual Plumbing and On-site Nonpotable Water Systems Study in June 2022.

The Ordinance establishes requirements for new commercial buildings 10,000 square feet or more to install gray water systems for subsurface irrigation and for new commercial buildings 50,000 square feet or more to install piping that could be utilized for an on-site nonpotable gray water system. This ordinance includes exemptions for residential buildings (California Building Standards Code, Chapter 3 R-2, R-2.1, R-3, R-4 occupancy classifications); additions and improvements, including tenant improvements in existing buildings as defined in the California Building Standards Code; child-care centers; grocery stores to be constructed in food deserts; mini storage, locker buildings; and warehouse, distribution centers.

Policy Considerations: The 2035 General Plan includes the following policy related to water conservation:

ER 6.1.7 Greenhouse Gas Reduction in New Development. The City shall reduce greenhouse gas emissions from new development by discouraging auto dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.

On November 12, 2019, Council adopted the Vision and Guiding Principles for the 2040 General Plan and Climate Action and Adaptation Plan Update. This document includes the commitment to take bold action to achieve carbon neutrality by 2045 and become a leading voice in the effort to reduce greenhouse gas emissions (GHGs) and adapt to climate change. Guiding Principles of sustainable and responsible growth include:

6. Make Sacramento a model of sustainable living by promoting environmentally conscious and health promoting design of buildings, parks, and infrastructure, as well as by promoting the adaptive reuse of existing buildings and the careful conservation of energy, water, open spaces, trees, and other natural resources.

Economic Impacts: The economic impacts of a dual plumbing ordinance would be increased construction costs for commercial, nonresidential development and increased demand for

plumbing services. The Dual Plumbing and On-site Nonpotable Water Systems Study estimates that the cost of installing separate additional piping for the purposes of reusing gray water on-site is approximately \$2.88 per square foot for buildings 50,000 square feet or larger. Some of this cost could be offset by potential cost savings from all electric construction. At the time of the phase one study, available data on the costs for treatment systems, ongoing operation, and maintenance was limited. However, initial estimates indicated that these costs could be significant. These items will be researched in more depth in the phase two study to be initiated in 2023 by the Department of Utilities (Attachment 4).

Environmental Considerations:

California Environmental Quality Act (CEQA): The activity (the ordinance and resolution to study the costs and programmatic requirements for onsite treatment and reuse of non-potable water) is a project under the California Environmental Quality Act (CEQA). The activity seeks to reduce water use, and energy associated with water use, as part of the City's response to climate change. The proposed ordinance would, in certain defined projects, require a gray water system to provide subsurface irrigation in some developments; installation of piping that could be utilized for an on-site treated nonpotable gray water system for water closets and urinals; and add additional regulations concerning various land uses.

The direct physical effect on the environment of the proposed activity would be negligible and less than significant. The beneficial effects of the proposed activity on the physical environment would include support for the City's climate change efforts. Because it can be seen with certainty that the activity would not result in significant effects the action is exempt from CEQA pursuant to the commonsense exemption provided in CEQA Guidelines sections 15061(b)(3); 15060(c)(3).

The proposed activity is exempt pursuant to CEQA Guidelines section 15307 because it is an action taken to assure the maintenance, restoration, or enhancement of natural resources where the regulatory process involves procedures for protection of the environment and section 15308 because it is an action taken to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment.

The proposed activity is consistent with City policies in the 2035 General Plan and other plans to reduce greenhouse gas emissions and reduce water use. Adoption and implementation of the Ordinance and adoption of the resolution would not result in any significant effects.

Sustainability: It is anticipated that the Alternate Water Systems Ordinance (Dual Plumbing Ordinance) will have a net positive impact on the environment, because it will conserve valuable potable water supply by utilizing gray water for landscape irrigation needs for large buildings and

install plumbing infrastructure in buildings needed to reuse gray water on-site for indoor end uses such as toilet and urinal flushing (water closets). Matching alternate water sources with the right end uses saves valuable potable water supply and supports a more resilient and sustainable water management system.

Commission/Committee Action: On November 15, 2022, the Law and Legislation Committee passed a Motion forwarding the Alternate Water Systems Ordinance to City Council for consideration on December 6, 2022.

Rationale for Recommendation: Staff recommend adoption of the Alternate Water Systems Ordinance for reasons outlined below:

Sustainable and Resilient Water Management: On-site water reuse systems allow building owners to match alternate water sources with the appropriate nonpotable end use, such as landscape irrigation or toilet and urinal flushing. Water that is reused for toilet and urinal flushing would subsequently be treated by Regional Sanitation and reused again, including for irrigation through the forthcoming [Harvest Water <https://www.regionalsan.com/harvest-water>](https://www.regionalsan.com/harvest-water) program.

Just Job Transition: On January 1, 2023, the New Building Electrification Ordinance will take effect requiring all electric construction for new buildings three stories or less. All electric construction will be required for all new buildings beginning on January 1, 2026. While building decarbonization will create many new jobs in multiple sectors, job losses are projected for plumbers and gas pipefitters. Thus, it is important for the City and other regional policymakers to take action to create opportunities to ensure there is a just transition away from fossil fuels across the Sacramento region. In addition to environmental benefit of utilizing gray water instead of potable water, dual plumbing for on-site water reuse is one potential avenue to mitigate job losses that may be caused by electrification while increasing resilience and improving adaptation to our changing climate.

Financial Considerations: The Alternate Water Systems Ordinance (Dual Plumbing Ordinance) is not anticipated to have a significant cost impact for the City. The Department of Utilities and Community Development Department could implement the proposed ordinance with existing resources. However, the second phase (outlined in the draft Resolution (Attachment 4)) is anticipated to require additional staff resources to implement on-site treatment of nonpotable water. The financial resources that may be required to implement a full on-site nonpotable water reuse program will not be fully known until the phase two study is complete.

Local Business Enterprise (LBE): Not applicable.

Background

Since receiving initial City Council Direction on June 1, 2021, staff have:

- Commissioned Kennedy Jenks to perform a study examining the regulatory, technical, and economic considerations of requiring alternate water systems (dual plumbing) for the purposes

of reusing nonpotable water on-site in certain types of commercial nonresidential new construction.

- Presented updates to the Law and Legislation Committee (6/21/2022, 7/19/2022) and Planning and Design Commission (6/23/2022).
- Held numerous stakeholder engagement meetings, including with UA Local 447, Sacramento Regional Builders Exchange, Regional Sanitation, and Sacramento County Environmental Management Division.
- Toured buildings with on-site nonpotable water reuse systems in San Francisco and Sacramento.
- Presented a proposed ordinance framework to the Law and Legislation Committee on 9/20/2022, and a draft ordinance and resolution on 11/15/2022.

The Alternate Water Systems (Dual Plumbing) Ordinance (Attachment 3) includes the following changes to the Sacramento City Code:

Local amendments to the California Building Standards Code, made through amending Sacramento City Code Title 15, “the Sacramento Building Code” to require:

- Building permit applications filed on or after July 1, 2023, for newly constructed commercial buildings 10,000 square feet or greater to install gray water systems for subsurface irrigation.
- Building permit applications filed on or after July 1, 2023, for newly constructed commercial buildings 50,000 square feet or greater to install separate additional piping system that could be utilized for an on-site nonpotable gray water system.

Exceptions to these requirements will be provided for:

- Buildings or parts of a building with a California Building Code Chapter 3 R-2, R-2.1, R-3, R-3.1, R-4 occupancy classification.
- Additions and improvements, including tenant improvements, in existing buildings as defined in the California Building Code.
- Child-care centers; grocery stores to be constructed in food deserts; mini storage, locker buildings; and warehouse distribution centers (as defined in draft ordinance).

Based on direction from the Law and Legislation Committee, a resolution is included as Attachment 4, which includes commitment from the City to study the costs and programmatic requirements for on-site treatment and reuse of nonpotable water. Considerations for future study include:

- Costs, programmatic requirements for and impacts of a potential requirement for on-site reuse of gray water and black water in certain types of new construction.
- Possible incentives for buildings that install alternate water and on-site treatment and reuse systems.

- Potential costs and benefits of expanding water reuse requirements to new large multi-unit residential construction.
- Resources and staffing requirements for program implementation.

ORDINANCE NO.

Adopted by the Sacramento City Council

Date Adopted

AN ORDINANCE AMENDING SECTION 15.24.030 AND ADDING SECTIONS 15.24.040 AND 15.24.050 TO THE SACRAMENTO CITY CODE TO ADOPT LOCAL AMENDMENTS TO THE CALIFORNIA BUILDING STANDARDS CODE, RELATING TO ALTERNATE WATER SYSTEMS

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1.

In connection with the local amendments to the 2022 California Plumbing Code set forth below, and pursuant to California Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5, the City Council finds and determines that:

- A. The amendments are reasonably necessary because of local climatic, geological, or topographical conditions.
- B. Under this adopting ordinance, specific amendments are established that are more restrictive than those adopted by the State of California under the State Buildings Standards Code, Title 24 of the California Code of Regulations.
- C. Express Finding Number 1: Climatic

"Climate change is having a profound impact on California's water resources, as evidenced by greater weather extremes, reduced snowpack, higher sea level, and changes in river flows."¹
"Increases in temperature are already causing decreases in snowpack. The mountain snowpack provides as much as a third of California's water supply by accumulating snow during our wet winters and releasing it slowly during our dry springs and summers. Warmer temperatures will melt the snow faster and earlier, making it more difficult to store and use throughout the dry season. By the end of this century, California's Sierra Nevada snowpack is projected to experience a 48-65% loss from the historical April 1 average. This significant decrease in snowpack has a direct impact on water supply for Californians."²

¹ California Department of Water Resources, Climate Change Program, as of September 8, 2022, <https://water.ca.gov/programs/all-programs/climate-change-program>.

² California Department of Water Resources, Climate Change and Water, as of September 8, 2022, <https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Change-and-Water>.

“The last two decades underscore California’s strong propensity for wet and dry periods, with a string of multi-year droughts punctuated by a few spectacular wet years.”³ “Under current water management operations, modeling indicates that the annual volume of water stored in Shasta and Oroville reservoirs, the two largest in the state, could shrink by one-third by the end of the century. This reduced storage could limit water supplies and thus lower resilience to droughts.”⁴

“Historically, California has relied heavily on the Sierra Nevada snowpack. Runoff from melting mountain snow is captured and distributed throughout the state via an extensive network of aqueducts.”⁵ “Water managers may not, on average, be presented with less overall precipitation, but more of it will fall as rain instead of snow, and the snow that does manage to accumulate will melt earlier in the spring. Thus, climate change will jeopardize California’s dependence on mountain snowpack as a natural water reservoir which stores water from winter storms and gradually releases it in spring and summer.”⁶ “Changes in precipitation, reduced snowpack, and more frequent droughts are likely to increase the demand on groundwater sources, risking overdraft, ground subsidence, and decreased water quality.”⁷ More intense droughts is one of the climate risks facing Sacramento.⁸ “The Sacramento Valley is especially prone to water shortages and impaired water quality. Dehydration is a major risk factor for adverse health outcomes, especially during the warm season. The Central Valley will be more prone to droughts and floods arising from increased weather extremes. Extreme floods could pose especially large public health threats (Swain et al. 2015).”⁹

The City of Sacramento’s 2020 Urban Water Management Plan and the recently completed American River Basin Plan acknowledge these general climatic trends. The City of Sacramento maintains high priority access to water supply that is stored and dedicated to the City of Sacramento for consumptive use. The City of Sacramento does not anticipate any localized shortages, though supply augmentation projects extend availability of infrastructure capacity. Supply augmentation and conservation programs also align with the goal of meeting long term conservation measures being developed by the State of California.

The following building standards in the 2022 California Building Standards Code are amended or added based upon this express finding:

³ Scripps Institution of Oceanography at UC San Diego, Climate Change Resources, FAQ: Climate Change in California, as of September 8, 2022, <https://scripps.ucsd.edu/research/climate-change-resources/faq-climate-change-california>.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ California Department of Water Resources, Climate Change Basics, as of September 8, 2022, <https://water.ca.gov/Water-Basics/Climate-Change-Basics>.

⁸ Houlton, Benjamin Jay Lund, (University of California, Davis) 2018. Sacramento Summary Report. California’s Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-002, page 6.

⁹ *Id.* at page 23.

- 2022 California Plumbing Code section 1503.1.4 (requiring gray water systems for subsurface irrigation for new construction of buildings 10,000 square feet or greater).
- 2022 California Plumbing Code section 1503.3 (adding an exception to allow potable water to supplement a gray water system).
- 2022 California Plumbing Code section 1506.1.1 (requiring installation of a separate additional piping system that could be utilized for an on-site nonpotable gray water systems for new construction of buildings that are 50,000 square feet or greater).
- 2022 California Plumbing Code section 1506.4 (adding an exception to allow potable water to connect to a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals).
- 2022 California Plumbing Code Sections 205.0, 208.0, 209.0, 215.0 225.0 (implementing definitions).

SECTION 2.

A. Section 15.24.030 of the Sacramento City Code is hereby amended as follows:

1. Subsection D is hereby added to read as follows:

D. CPC section 1503.1.4 is added to read as follows:

1503.1.4 Subsurface Irrigation

For building permit applications filed on or after July 1, 2023, buildings that are 10,000 square feet or greater must include a gray water system to provide subsurface irrigation as provided in this chapter.

Exceptions:

(1) Gray water systems are not required for any buildings or parts of a building with a California Building Code, Chapter 3 R-2, R-2.1, R-3, R-3.1, or R-4 occupancy classification.

(2) Gray water systems are not required for additions and improvements, including tenant improvements, in existing buildings as defined in the California Building Code.

(3) Gray water systems are not required for a child-care center; grocery store to be constructed in a food desert; mini storage, locker building; or warehouse, distribution center.

2. Subsection E is hereby added to read as follows:

E. Exception (3) is added to section 1503.3 to read as follows:

(3) A potable water supply may supplement a gray water system to provide subsurface irrigation through the use of an air gap as specified in Table 603.2.

3. Subsection F is hereby added to read as follows:

F. CPC section 1506.1.1 is added to read as follows:

1506.1.1 Installation of separate, additional piping system for on-site treated nonpotable gray water systems

For building permit applications filed on or after July 1, 2023, buildings that are 50,000 square feet or greater must include installation of a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals.

Exceptions:

(1) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for any buildings or parts of a building with a California Building Code, Chapter 3 R-2, R-2.1, R-3, R-3.1, or R-4 occupancy classification.

(2) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for additions and improvements, including tenant improvements, in existing buildings as defined in the California Building Code.

(3) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for a child-care center; grocery store to be constructed in a food desert; mini storage, locker building; or warehouse, distribution center.

4. Subsection G is hereby added to read as follows:

G. Exception (3) is added to Section 1506.4 to read as follows:

(3) A potable water supply may be connected to a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals through the use of a reduced pressure principle backflow prevention assembly as specified in Table 603.2. Upon introduction of an on-site treated nonpotable water source to the separate piping system, an air gap shall be installed pursuant to Table 603.2.

5. Subsection H is hereby added to read as follows:

H. The following definition is added to California Plumbing Code section 205.0:

Child-care Center. “Child-care center” has the same meaning as defined in California Building Code section 202.

6. Subsection I is hereby added to read as follows:

I. The following definition is added to California Plumbing Code section 208.0:

Food Desert. A census tract that has (i) a median household income at or below 80% of the Sacramento County median household income and (ii) at least 33% of the census tract’s population living more than one mile from an existing grocery store.

7. Subsection J is hereby added to read as follows:

J. The following definition is added California Plumbing Code section 209.0:

Grocery Store. A building or a portion of a building with a California Building Code, Chapter 3, Section 309, Group M occupancy classification with more than 50% gross floor area devoted to the sale of non-taxable merchandise.

8. Subsection K is hereby added to read as follows:

K. The following definition is added to California Plumbing Code section 215.0:

Mini storage, locker building. A building that offers individually secured units or surface space for the storage of goods, other than hazardous materials, for rental to the public, each of which is accessible only by the renter of the individual unit or space.

9. Subsection L is hereby added to read as follows:

L. The following definition is added to California Plumbing Code section 225.0:

Warehouse, distribution center. A building used primarily for the long-term or short-term storage of goods and materials awaiting transportation or distribution, and not generally accessible to the general public. Incidental storage, repair, and maintenance of trucks associated with the distribution of goods from the warehouse are allowed.

B. Except as amended in subsections A above, section 15.24.030 of the Sacramento City Code remains unchanged and in full effect.

SECTION 3.

Section 15.24.040 is hereby added to the Sacramento City Code to read as follows:

15.24.040 User-supervisor declaration.

Before the issuance of a certificate of occupancy for a building that includes a gray water system; an on-site treated nonpotable gray water system; or a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals, the building owner shall execute a user-supervisor declaration on a form prescribed by the director of utilities or designee. The user-supervisor declaration must identify the person responsible for the avoidance of cross-connections during the installation, operation, and maintenance of a gray water system; an on-site treated nonpotable gray water system; or a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals.

SECTION 4.

Section 15.24.050 is hereby added to the Sacramento City Code to read as follows:

15.24.050 Operation of gray water system.

At no time during the operation of a gray water system may gray water be used in spray irrigation, be allowed to pond or runoff, or be discharged directly into or reach any storm sewer system or any surface body of water.

Adopted by the City of Sacramento City Council on _____ by the following vote:

Ayes:

Noes:

Abstain:

Absent:

MAYOR

Attest:

City Clerk

Passed for Publication:

Published:

Effective:

ORDINANCE NO.

Adopted by the Sacramento City Council

Date Adopted

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- B. Under this adopting ordinance, specific amendments are established that are more restrictive than those adopted by the State of California under the State Buildings Standards Code, Title 24 of the California Code of Regulations.
- C. Express Finding Number 1: Climatic

“Climate change is having a profound impact on California’s water resources, as evidenced by greater weather extremes, reduced snowpack, higher sea level, and changes in river flows.”¹
“Increases in temperature are already causing decreases in snowpack. The mountain snowpack provides as much as a third of California’s water supply by accumulating snow during our wet winters and releasing it slowly during our dry springs and summers. Warmer temperatures will melt the snow faster and earlier, making it more difficult to store and use throughout the dry season. By the end of this century, California’s Sierra Nevada snowpack is projected to experience a 48-65% loss from the historical April 1 average. This significant decrease in snowpack has a direct impact on water supply for Californians.”²

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“The last two decades underscore California’s strong propensity for wet and dry periods, with a string of multi-year droughts punctuated by a few spectacular wet years.”³ “Under current water management operations, modeling indicates that the annual volume of water stored in Shasta and Oroville reservoirs, the two largest in the state, could shrink by one-third by the end of the century. This reduced storage could limit water supplies and thus lower resilience to droughts.”⁴

“Historically, California has relied heavily on the Sierra Nevada snowpack. Runoff from melting mountain snow is captured and distributed throughout the state via an extensive network of aqueducts.”⁵ “Water managers may not, on average, be presented with less overall precipitation, but more of it will fall as rain instead of snow, and the snow that does manage to accumulate will melt earlier in the spring. Thus, climate change will jeopardize California’s dependence on mountain snowpack as a natural water reservoir which stores water from winter storms and gradually releases it in spring and summer.”⁶ “Changes in precipitation, reduced snowpack, and more frequent droughts are likely to increase the demand on groundwater sources, risking overdraft, ground subsidence, and decreased water quality.”⁷ More intense droughts is one of the climate risks facing Sacramento.⁸ “The Sacramento Valley is especially prone to water shortages and impaired water quality. Dehydration is a major risk factor for adverse health outcomes, especially during the warm season. The Central Valley will be more prone to droughts and floods arising from increased weather extremes. Extreme floods could pose especially large public health threats (Swain et al. 2015).”⁹

The City of Sacramento’s 2020 Urban Water Management Plan and the recently completed American River Basin Plan acknowledge these general climatic trends. The City of Sacramento maintains high priority access to water supply that is stored and dedicated to the City of Sacramento for consumptive use. The City of Sacramento does not anticipate any localized shortages, though supply augmentation projects extend availability of infrastructure capacity. Supply augmentation and conservation programs also align with the goal of meeting long term conservation measures being developed by the State of California.

The following building standards in the 2022 California Building Standards Code are amended or added based upon this express finding:

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⁹ *Id.* at page 23.

- 2022 California Plumbing Code section 1503.1.4 (requiring gray water systems for subsurface irrigation for new construction of buildings 10,000 square feet or greater).
- 2022 California Plumbing Code section 1503.3 (adding an exception to allow potable water to supplement a gray water system).
- 2022 California Plumbing Code section 1506.1.1 (requiring installation of a separate additional piping system that could be utilized for an on-site nonpotable gray water systems for new construction of buildings that are 50,000 square feet or greater).
- 2022 California Plumbing Code section 1506.4 (adding an exception to allow potable water to connect to a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals).
- 2022 California Plumbing Code Sections 205.0, 208.0, 209.0, 215.0 225.0 (implementing definitions).

SECTION 2.

A. Section 15.24.030 of the Sacramento City Code is hereby amended as follows:

1. Subsection D is hereby added to read as follows:

D. CPC section 1503.1.4 is added to read as follows:

1503.1.4 Subsurface Irrigation

For building permit applications filed on or after July 1, 2023, buildings that are 10,000 square feet or greater must include a gray water system to provide subsurface irrigation as provided in this chapter.

Exceptions:

- (1) Gray water systems are not required for any buildings or parts of a building with a California Building Code, Chapter 3 R-2, R-2.1, R-3, R-3.1, or R-4 occupancy classification.
- (2) Gray water systems are not required for additions and improvements, including tenant improvements, in existing buildings as defined in the California Building Code.
- (3) Gray water systems are not required for a child-care center; grocery store to be constructed in a food desert; mini storage, locker building; or warehouse, distribution center.

2. Subsection E is hereby added to read as follows:

E. Exception (3) is added to section 1503.3 to read as follows:

(3) A potable water supply may supplement a gray water system to provide subsurface irrigation through the use of an air gap as specified in Table 603.2.

3. Subsection F is hereby added to read as follows:

F. CPC section 1506.1.1 is added to read as follows:

1506.1.1 Installation of separate, additional piping system for on-site treated nonpotable gray water systems

For building permit applications filed on or after July 1, 2023, buildings that are 50,000 square feet or greater must include installation of a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals.

Exceptions:

(1) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for any buildings or parts of a building with a California Building Code, Chapter 3 R-2, R-2.1, R-3, R-3.1, or R-4 occupancy classification.

(2) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for additions and improvements, including tenant improvements, in existing buildings as defined in the California Building Code.

(3) Installation of a separate, additional piping system for an on-site treated nonpotable gray water system is not required for a child-care center; grocery store to be constructed in a food desert; mini storage, locker building; or warehouse, distribution center.

4. Subsection G is hereby added to read as follows:

G. Exception (3) is added to Section 1506.4 to read as follows:

(3) A potable water supply may be connected to a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals through the use of a reduced pressure principle backflow prevention assembly as specified in Table 603.2. Upon introduction of an on-site treated nonpotable water source to the separate piping system, an air gap shall be installed pursuant to Table 603.2.

5. Subsection H is hereby added to read as follows:

H. The following definition is added to California Plumbing Code section 205.0:

Child-care Center. “Child-care center” has the same meaning as defined in California Building Code section 202.

6. Subsection I is hereby added to read as follows:

I. The following definition is added to California Plumbing Code section 208.0:

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7. Subsection J is hereby added to read as follows:

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Grocery Store. A building or a portion of a building with a California Building Code, Chapter 3, Section 309, Group M occupancy classification with more than 50% gross floor area devoted to the sale of non-taxable merchandise.

8. Subsection K is hereby added to read as follows:

K. The following definition is added to California Plumbing Code section 215.0:

Mini storage, locker building. A building that offers individually secured units or surface space for the storage of goods, other than hazardous materials, for rental to the public, each of which is accessible only by the renter of the individual unit or space.

9. Subsection L is hereby added to read as follows:

L. The following definition is added to California Plumbing Code section 225.0:

Warehouse, distribution center. A building used primarily for the long-term or short-term storage of goods and materials awaiting transportation or distribution, and not generally accessible to the general public. Incidental storage, repair, and maintenance of trucks associated with the distribution of goods from the warehouse are allowed.

B. Except as amended in subsections A above, section 15.24.030 of the Sacramento City Code remains unchanged and in full effect.

SECTION 3.

Section 15.24.040 is hereby added to the Sacramento City Code to read as follows:

15.24.040 User-supervisor declaration.

Before the issuance of a certificate of occupancy for a building that includes a gray water system; an on-site treated nonpotable gray water system; or a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals, the building owner shall execute a user-supervisor declaration on a form prescribed by the director of utilities or designee. The user-supervisor declaration must identify the person responsible for the avoidance of cross-connections during the installation, operation, and maintenance of a gray water system; an on-site treated nonpotable gray water system; or a separate, additional piping system for an on-site treated nonpotable gray water system for water closets and urinals.

SECTION 4.

Section 15.24.050 is hereby added to the Sacramento City Code to read as follows:

15.24.050 Operation of gray water system.

At no time during the operation of a gray water system may gray water be used in spray irrigation, be allowed to pond or runoff, or be discharged directly into or reach any storm sewer system or any surface body of water.

Adopted by the City of Sacramento City Council on _____ by the following vote:

Ayes:

Noes:

Abstain:

Absent:

MAYOR

Attest:

City Clerk

Passed for Publication:

Published:

Effective:

RESOLUTION

Adopted by the Sacramento City Council

Date

Studying the Costs and Programmatic Requirements for Onsite Treatment and Reuse of Non-Potable Water

BACKGROUND

- A.** On June 29, 2020, the Mayors' Commission on Climate Change completed the Final Report with the goals of reducing greenhouse gas emissions and achieving carbon neutrality by 2045.
- B.** On February 2, 2021, City Council approved a \$4.4 million one-time allocation for 2021 Climate Implementation Work Plan projects in the Fiscal Year 2020/2021 Midyear Budget (Resolution No. 2021-0029), which supports additional work for water conservation and workforce tasks. These efforts are currently in process.
- C.** On June 1, 2021, the City Council adopted Resolution No. 2021-0166:
 - a. Adopting the Framework for the Electrification of Existing Buildings.
 - b. Requesting staff to report back on progress and any recommendations for green job opportunities and accelerating the transition of potentially impacted labor segments into green and decarbonized sectors.
 - c. Requesting the Community Development Department and the Department of Utilities evaluate opportunities for the expansion of water conservation standards for buildings.
- D.** On July 19, 2022, Staff presented the findings of the Dual Plumbing and Onsite Non-Potable Water Systems Study to the Law and Legislation Committee.
- E.** On September 20, 2022, the Law and Legislation Committee directed staff to draft an Alternate Water Systems Ordinance (Dual Plumbing Ordinance) for their consideration.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. City staff shall study the costs, programmatic requirements for and impacts of onsite treatment of graywater or blackwater and reuse of that water in commercial nonresidential buildings over 50,000 sq ft. and nonresidential commercial district-scale projects with over 100,000 square feet in total area.

Section 2. City staff shall evaluate possible incentives for buildings that install alternate water and onsite treatment and reuse systems.

Section 3. City staff shall evaluate the potential costs and benefits of expanding water reuse requirements to large multi-unit residential construction.

Section 4. City staff shall evaluate the resources and staffing needs to implement an onsite water reuse program.

Section 5. City Staff will bring forward recommendations in 2025.