COUNCIL AGENDA: 3/15/2022
ITEM: 6.1
FILE NO: 22-313

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Toni J. Taber, CMC City Clerk

SUBJECT: **SEE BELOW**

DATE: March 15, 2022

SUBJECT: Revisions to the City of San José's Water Efficient Landscape Ordinance

Recommendation

As recommended by the Transportation and Environment Committee on March 7, 2022:
(a) Accept the report on Water Efficient Landscape Ordinance.
(b) Approve an ordinance amending the San José Municipal Code, Sections 15.08.500, 15.10.030, 15.10.040, 15.10.290, 15.10.300, and Chapter 15.11 of Title 15 and Sections 17.72.535 and 17.72.560 of Chapter 17.72 of Title 17 to modify the Water Efficient Landscape Standards for New and Rehabilitated Landscaping and to clarify potable water conservation standards.
CEQA: Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action; and File No. PP17-008, General Procedure and Policy Making resulting in no changes to the physical environment.
(Environmental Services/Planning, Building and Code Enforcement)
[Transportation and Environment Committee referral 3/7/2022 - Item (d)1]

T&E AGENDA: 3/7/22
ITEM: (d) 1

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Christopher Burton

SUBJECT: SEE BELOW

DATE: February 16, 2022

Approved	Date
	2/15/22

SUBJECT: REVISIONS TO THE CITY OF SAN JOSE'S WATER EFFICIENT LANDSCAPE ORDINANCE

RECOMMENDATION

Accept the update on Water Efficient Landscape Ordinance and refer the item for full Council consideration at the March 15, 2022 City Council meeting to approve an ordinance amending the San José Municipal Code, Sections 15.08.500, 15.10.030, 15.10.040, 15.10.290, 15.10.300, and Chapter 15.11 of Title 15 and Sections 17.72.535 and 17.72.560 of Chapter 17.72 of Title 20 to modify the Water Efficient Landscape Standards for New and Rehabilitated Landscaping and to clarify potable water conservation standards.

OUTCOME

Approval of the ordinance amendments will:

a) Require all new construction projects (defined in Chapter 15.11 as a new building or structure with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building), with exclusions, of any size to comply with the requirements of Chapter 15.11.
b) Prohibit the installation of high-water use plants, as defined by the Water Use Classification of Landscape Species (WUCOLS), for all projects that must comply with the requirements of Chapter 15.11.
c) Encourage the installation of native and non-invasive plant species, as defined by the California Invasive Plant Council, to the extent possible for all projects that must comply with the requirements of Chapter 15.11.
d) Prohibit the installation of turf, with exclusions, for all projects that must comply with the requirements of Chapter 15.11.

e) Limit hardscape installation to no more than 50% of the area available for landscaping for all projects that must comply with the requirements of Chapter 15.11.
f) Prohibit the installation of spray sprinkler irrigation systems, except where turf is permitted.
g) Require the installation of drip or bubbler irrigation systems, except where spray sprinkler irrigation systems are allowed, for all projects that must comply with the requirements of Chapter 15.11.
h) Make other amendments to the Code for consistency and to clarify potable water conservation standards.

BACKGROUND

Legislative History

The State of California enacted the Model Water Efficient Landscape Ordinance (MWELO) on January 1, 1993, from the 1990 Water Conservation and Landscaping Act passed in Assembly Bill 325. MWELO aimed to save water through efficient landscape design, installation, and maintenance. MWELO directed cities and counties to ensure MWELO compliance on residential, commercial, industrial, and institutional development projects requiring planning development review with landscaped areas of 500 square feet or more.

On May 10, 1994, the City adopted Ordinance number 24600, adding Chapter 15.11, "Water Efficient Landscape Standards for New and Rehabilitated Landscaping", to the San José Municipal Code to serve as the locally adopted Water Efficient Landscape Ordinance (WELO). Assembly Bill 1881, passed in 2006, enacted the Department of Water Resources to update the state's model ordinance based on recommendations from the California Urban Water Conservation Council. The updated MWELO went into effect on January 1, 2010. The City adopted Ordinance number 29243 on April 30, 2013, amending the local WELO to adhere to state law.

In 2015, Governor Jerry Brown tasked the Department of Water Resources with updating MWELO via Executive Order B-29-15. The update increased water efficiency standards for new and retrofitted landscapes by encouraging efficient irrigation systems, stormwater capture, and limiting portions of landscapes with turf installation. The City of San José again amended WELO with Ordinance number 29671 adopted on January 12, 2016, to reflect the changes to the state's model ordinance.

Water Supply Availability

California's Water Year 2020, covering the period October 1, 2019 - September 30, 2020, was dry in the northern two-thirds of the state, and the first six months of the current Water Year 2021 ranked as the fourth driest on record. On April 21, 2021, Governor Newsom declared a drought emergency in two California counties, and on May 10, 2021, he expanded the emergency to 39 additional counties for a total of 41 of the state's 58 counties. On June 9, 2021, the Santa Clara Valley Water District (Valley Water) Board of Directors declared a water

shortage emergency condition in Santa Clara County and called for a 15% reduction in water usage countywide, as compared to 2019 water usage. On June 22, 2021, the Santa Clara County Board of Supervisors adopted a resolution ratifying a June 15, 2021 proclamation by the County Director of Emergency Services for a local emergency related to extreme drought conditions. In addition, on July 8, 2021, California Governor Gavin Newsom extended his previous drought proclamation to include Santa Clara County and asked that all Californians voluntarily reduce water usage by 15% compared to 2020 water usage. Executive Order N-10-21 tasked the State Water Resources Control Board with tracking and reporting monthly progress towards the 15% statewide reduction.

In October 2021, Governor Newsom expanded the drought emergency statewide and enabled the State Water Resources Control Board to ban wasteful water practices, including the use of potable water for washing sidewalks and driveways. The City's conservation measures already include these requirements.

Recent rainfall, while certainly welcome, neither removes nor reduces the need for long-term conservation and drought preparation efforts.

Imported water accounts for approximately 55% of Valley Water's supply sources. The State Water Resources Control Board issued warning notices to water rights holders in California, including Valley Water, notifying them to plan for potential shortages. Additionally, Valley Water's largest local surface water reservoir, Anderson Reservoir, is offline for the next 10 years for the duration of the Anderson Dam Seismic Retrofit Project.

Recent Council Actions

On October 13, 2021, the Rules and Open Government Committee (ROGC) approved Memorandum ROGC 21-778 Water Shortage Declaration, directing staff to revise the City's existing WELO "to require only planting drought-tolerant landscapes in new developments." The memorandum included the following suggestions and concerns:

- Amendments to the City's WELO should not impede efforts to green areas of San José suffering from a historic lack to natural investment
- Reduce urban heat island impacts by prioritizing planting drought-tolerant plants and increase tree canopy

ANALYSIS

Following ROGC's guidance, the proposed amendments require water-efficient landscape and irrigation design for all new development within the City to posture the City for drought resilience. Key amendments are summarized in Table 1.

Table 1. Key proposed amendments to the San José Municipal Code, Chapter 15.11.

Category	Current Ordinance	Proposed Amendment
Applicability (§15.11.020)	New construction projects with a total landscape area of 500 or more square feet	All new construction projects, excluding backyards of single-family dwellings
Compliance options (§15.11.900)	Three options for all projects: 1. Plant-type restriction 2. Water budget calculation 3. Recycled water option	All projects must comply with the landscape and irrigation design requirements
Allowable plant types (§15.11.900(B)(1)(c), §15.11.950(A-D))	High-water use plants permitted in up to 25% of landscape area with water budget compliance pathway	High-water use plants are prohibited for all projects. Emphasis placed on native and non-invasive plant species.
Turf restrictions (§15.11.900(B)(1)(b), §15.11.950(E))	Turf permitted in up to 25% of landscape area	Turf prohibited, except for recreational areas
Hardscape limitation (§15.11.950(F))	No hardscape limitation (although blight is prohibited elsewhere in the SJMC)	No more than 50% of the area available for landscaping may be hardscape. Instead, non-invasive plants and non-hardscape features must be installed.
Irrigation system design (§15.11.900(B)(1)(e), §15.11.980)	Spray and overhead spray sprinklers permitted	Spray sprinklers prohibited except where turf is permitted. USDA Drip and bubbler irrigation systems are required.

Applicability and Compliance Options

The existing WELO applies to new construction with a total landscape area equal to or greater than 500 square feet requiring a building permit under Title 24 or a development permit under Title 20. The proposed changes expand the applicability of Chapter 15.11 to all new construction projects with a landscape element requiring a building permit under Title 24 or development permit under Title 20, regardless of total landscape area. Backyard only projects over 500 square feet with a building permit must also comply.

The current regulation, furthermore, allows any project that falls under the requirements of Chapter 15.11 to select a compliance option, excluding certain projects from some of the plant-type, irrigation, or landscape design efficiency requirements. The proposed amendment eliminates the alternate options for compliance.

Plant-Type, Turf and Hardscape Restrictions

Plant selection in landscape design is vital to creating sustainable and regenerative landscapes. Sustainable landscapes use water at the same rate water becomes available without impacting the regeneration rate of water sources. Regenerative landscapes restore the environment by improving soil water-holding capacity, sequestering carbon, and increasing wildlife habitat while enabling long-term sustainability. Soil health, which is improved with careful plant selection, leads to improved carbon dioxide sequestration. The Sustainable Sites Initiative, administered by the Green Business Certification, Inc., notes healthy soils, especially with appropriate vegetative cover, are less susceptible to erosion, and soil disruption can lead to methane and nitrous oxide, which are powerful greenhouse gases. Including appropriate plant species in landscape design encourages regenerative landscapes, especially when combined with other requirements present in the current WELO regulation promoting soil health, including amending soil with compost and mulch.

The United States Department of Agriculture (USDA) defines invasive plants as those plant species that are not native to a geographic area and spread to many sites causing disruption to local plant communities or ecosystems. Chapter 15.11 already prohibits invasive plant species in landscape design, yet the regulation allows for high-water using plants and turf to be installed in up to 25% of the landscape. Plants classified as high water use by the WUCOLS scale are not necessarily invasive but are still problematic in terms of high-water use and maintenance costs.

Native plants, according to the USDA, are plants that have developed over hundreds or thousands of years in a particular region or ecosystem. In contrast to invasive and high-water use plants, native and climate-adapted plants require less irrigation water and expect rain in the fall and winter and little, occasional, or no water during the summer. Maintenance costs typically required for grass, turf, and other high-water use landscapes, such as mowing and the use of pesticides, may be avoided entirely with a landscape designed with native and low water use plants. In addition to cost savings, the lack of carbon emissions from mowing and lack of pesticide use reduces the introduction of pollutants to the air, soil, and waterways, creating healthier spaces for people as well as local insects and wildlife.

Landscapes designed with native and climate-adapted plants are more resilient to climatic disruptions, such as drought, increasing temperatures, and fire. The proposed amendment prohibits all high-water use plants for all projects, limiting plant selection to very low, low, or moderate water use plants. Moreover, the amendment encourages native plants to be incorporated to the extent possible into landscape design. Limiting plant types to very low to moderate water use and encouraging native plants postures the City for future drought resilience in addition to encouraging plants that provide shade and retain more moisture in the soil, reducing heat island effects. Prohibiting high water use plants also reduces the likelihood of spreading fires from dry plants, which can act as kindling to wild or urban fires.

Limiting hardscape in favor of planting native and non-hardscape landscape features reduces heat island effects and stormwater runoff. Rising global temperatures are compounded in urban communities by heat island effects, leading to increased energy costs for cooling. Hardscape and

similar surfaces in the urban environment are more likely to absorb solar radiation and heat compared to areas landscaped with plants, which cool the ground surface through natural processes such as evaporation and plant transpiration. The proposed amendment discourages all types of hardscape, including pervious surfaces such as gravel or rock gardens, to reduce heat island effects. In addition to heat island effects, impervious hardscapes preclude water penetration into the soil, reducing soil health, and increasing stormwater runoff. Runoff picks up pollutants before entering waterways like streams, rivers, and the ocean. In urban areas that are mostly paved or built out, there is less pervious area to absorb rain thus creating more runoff into waterways. Limiting hardscape in landscape design aims to reduce urban runoff and promote water penetration into the soil.

The requirements in the proposed amendment (prohibiting all high-water use plants, encouraging native plants, and limiting hardscape to 50% of the area available for landscaping), work together to increase carbon sequestration by improving soil health, save on landscape maintenance costs, improve human health and biodiversity, reduce urban heat island effects, and reduce stormwater runoff.

Irrigation System Design

Spray irrigation systems are most appropriate for irrigating areas with uniform land cover, such as lawns. The proposed amendment prohibits spray sprinkler systems, except for spray irrigation systems that meet certain efficiency standards where turf installation is permitted. Drip irrigation, which efficiently delivers water directly to roots, is best to support sustainable, native landscapes. The Sustainable Landscape Guidelines from Valley Water recommend drip irrigation for very-low, low, and moderate water use plants, which aligns with the plant-type restrictions described in the previous section. Bubbler irrigation systems, which emit higher volumes of water than drip but at lower emissions rates than spray sprinklers, are best for establishing larger shrubs and trees. Requiring bubbler irrigation systems aligns with the amendment's intent to promote native tree and groundcover installation, further reducing heat island effects. The proposed amendment requires the installation of drip and/or bubbler irrigation systems for all projects unless spray irrigation is permitted.

Potable Water Conservation

The Proposed Ordinance also contains clarifying amendments regarding conservation of potable water, including that the Council can adopt drought measures that it deems necessary and appropriate under the current or anticipated climate conditions or declared water shortage level.

CONCLUSION

Recommending this item for full Council consideration at the March 15, 2022 City Council meeting to approve an ordinance to modify the Water Efficient Landscape Standards for New and Rehabilitated Landscaping would require drought-resistant landscape design for all new development, further citywide water conservation goals, and reduce urban heat island effects.

EVALUATION AND FOLLOW-UP

After appearing on the agenda for the Transportation and Environment Committee Meeting on March 7, 2022, this item will appear on the agenda for the City Council Meeting on March 15, 2022. Following adoption by the Council, staff will work to implement the WELO updates into their respective operations codes to ensure uniform implementation across the plan review and inspection process. Staff may recommend further ordinance if needed to further increase the City's drought resilience and improve enforcement measures of Chapter 15.11.

CLIMATE SMART SAN JOSE

The recommendation in this memorandum aligns with one or more Climate Smart San José energy, water, or mobility goals

PUBLIC OUTREACH

On October 13, 2021, Mayor Liccardo held a press conference to inform the public of plans to update WELO. On the same date, members of the public voiced their opinion regarding the item at the ROGC.

Staff engaged in stakeholder feedback while drafting the ordinance amendments with the following organizations:

- Sierra Club, Loma Prieta Chapter
- San Francisco Baykeeper
- Sustainable Silicon Valley
- Gachina Landscape Management
- Waterfluence
- San José Chamber of Commerce, Water, and Energy Policy Committee

This memorandum will be posted on the City's website for the March 7, 2022 Transportation and Environmental Committee meeting and on the agenda for the March 15, 2022 Council meeting.

COORDINATION

This memorandum has been coordinated with the Office of the City Attorney and the City Manager's Budget Office.

COMMISSION RECOMMENDATION

Memorandum ROGC 21-778 Water Shortage Declaration was presented at the October 13, 2021 Rules and Open Government Committee meeting. The memorandum directed staff to revise the City's existing WELO to require only planting drought-tolerant landscapes in new developments. The ROGC approved the memorandum, which included direction to revise WELO, along with an early consideration form.

The memorandum included the following suggestions and concerns:

- Amendments to the City's WELO should not impede efforts to green areas of San José suffering from a historic lack to natural investment
- Reduce urban heat island impacts by prioritizing planting drought-tolerant plants and increase tree canopy

COST SUMMARY/IMPLICATIONS

The recommended actions in this memo are expected to result in equivalent or reduced City staffing demands relative to those of the current WELO. The Department of Planning, Building and Code Enforcement, however, is not adequately staffed for the tasks required under the current regulation and may need to add a dedicated position or hire additional staff. Budgetary impacts are, and will continue to be, closely monitored throughout the year, and will be factored into the development of the 2022-2023 Proposed Budget.

CEQA

Not a Project, File No. PP17-008, General Procedure and Policy Making resulting in no changes to the physical environment.

/s/
KERRIE ROMANOW
Director, Environmental Services

/s/
CHRISTOPHER BURTON
Director, Planning, Building and Code Enforcement

For questions, please contact Jeffrey Provenzano, Deputy Director, Environmental Services Department at (408) 277-3671.