

**DRAFT**

ORDINANCE NO.

**AN ORDINANCE OF THE CITY OF SAN JOSE AMENDING SECTION 15.08.500 OF CHAPTER 15.08; SECTIONS 15.10.030, 15.10.040, 15.10.290, 15.10.300 OF CHAPTER 15.10; CHAPTER 15.11 OF TITLE 15; AND SECTIONS 17.72.530, 17.72.535 AND 17.72.560 OF CHAPTER 17.72 OF TITLE 17 OF THE SAN JOSE MUNICIPAL CODE TO MODIFY THE WATER EFFICIENT LANDSCAPE STANDARDS FOR NEW AND REHABILITATED LANDSCAPING AND TO CLARIFY POTABLE WATER CONSERVATION STANDARDS**

**WHEREAS**, the adoption and enforcement of this Ordinance is necessary to manage the City of San José's ("City") potable water supply in the short and long-term and to avoid or minimize the effects of drought and water shortage within the City. This Ordinance is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare; and

**WHEREAS**, the California Water Conservation in Landscaping Act of 2006, Government Code section 65591, et seq., (the "Act"), requires cities and counties, including charter cities and charter counties, to adopt landscape conservation ordinances; and

**WHEREAS**, the Act requires cities and counties to adopt the model ordinance contemplated by the Act (the "Model Ordinance") or an equivalent document which is "at least as effective as" the Model Ordinance in addressing the efficient use of water in landscaping; and

**WHEREAS**, on April 30, 2013, the City adopted Ordinance No. 29243, amending its existing water efficient landscape standards to meet the requirements and guidelines of the Model Ordinance and to address certain policy and environmental goals related to the use of recycled water; and

**WHEREAS**, on April 1, 2015, California Governor Jerry Brown issued Drought Executive Order EO-B-29-15, directing the California Department of Water Resources to update the Model Ordinance through expedited regulation; and

**WHEREAS**, on December 15, 2015, the City adopted updates to the Model Ordinance and to address certain policy and environmental goals related to the use of recycled water; and

**WHEREAS**, 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 (6) months of the current Water Year 2021 ranked as the fourth driest on record. By May 10, 2021, Governor Newsom declared a drought emergency in forty-one (41) of the California's fifty-eight (58) counties and extended the emergency to Santa Clara County on July 8, 2021. 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 fifteen percent (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 declaring a local emergency related to extreme drought conditions; and

**WHEREAS**, in October 2021, Governor Newsom expanded the drought emergency statewide and enabled the State Water Resources Control Board to ban wasteful water practices; and

**WHEREAS**, imported water accounts for approximately fifty-five percent (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 ten (10) years for the duration of the Anderson Dam Seismic Retrofit Project; and

**WHEREAS**, the City Council finds and determines that the drought conditions and ongoing and increasing need to conserve water as a natural resource, this Ordinance exceeds the landscape requirements contained in the Model Ordinance; and

**WHEREAS**, the City Council finds and determines this Ordinance is "at least as effective as" the Model Ordinance due to its consistency with the Model Ordinance and the additional provisions which reflect the City's strong commitment to conservation and the use of recycled water in the City; and

**WHEREAS**, the City is the lead agency under CEQA (defined below) for the approval and adoption of this Ordinance, and the City Council of the City is the decision-making body for the City in connection with the approval and adoption of this Ordinance; and

**WHEREAS**, pursuant to the provisions of the California Environmental Quality Act of 1970, together with state and local implementation guidelines and regulations, including without limitation Title 21 of the San José Municipal Code, all as amended to date (collectively, "CEQA"), the action taken would be exempt from CEQA on the grounds that it is general procedure and policy making resulting in no changes to the physical environment and is therefore exempt under File PP17-008; and

**WHEREAS**, the City Council of the City has considered the exemption and concludes such exemption is applicable prior to taking any approval actions on this Ordinance;

**NOW, THEREFORE**, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SAN JOSE:

**SECTION 1.** Section 15.08.500 of Chapter 15.08 of Title 15 of the San José Municipal Code is amended to read as follows:

**15.08.500 Resale of Water**

- A. Except by special agreement with the ~~e~~City upon such terms as the ~~Director-city~~ elects and authorizes, no person shall resell any of the water provided from the ~~m~~Municipal ~~w~~Water ~~s~~System nor shall such water be transmitted to premises or used upon premises other than those specified in such person's application for service.
- B. This Section does not apply to residential submetering installed, operated, maintained, and billed in compliance with Civil Code Section 1954.201, et seq. or as later amended.

**SECTION 2.** Section 15.10.030 of Chapter 15.10 of Title 15 of the San José Municipal Code is amended to read as follows:

**15.10.030 Potable Water**

- A. "Potable ~~w~~Water" means water of a quality which meets California ~~Department of Health Services and San Francisco Bay Regional Water Quality State Water Resources~~ Control Board requirements for water suitable for human consumption.
- B. "Potable ~~w~~Water" does not include bottled drinking water; ~~r~~Reclaimed ~~w~~Water; recycled or so-called "gray-water"; water brought into the County of Santa Clara by truck; ~~w~~Water from ~~d~~Dewatering ~~e~~Operations; Water Pollution Control Plant effluent; or water pumped for remediation purposes pursuant to a permit from the Santa Clara Valley Water District or the San Francisco Bay Regional Water Quality Control Board.

**SECTION 3.** Section 15.10.040 of Chapter 15.10 of Title 15 of the San José Municipal Code is amended to read as follows:

#### **15.10.040 Grayw-Water**

"Gray-water" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers water which is collected and recycled or reused after its original use.

**SECTION 4.** Section 15.10.290 of Chapter 15.10 of Title 15 of the San José Municipal Code is amended to read as follows:

#### **15.10.290 Landscape Irrigation**

- A. No person shall use, permit or allow the use of ~~p~~Potable ~~w~~Water to irrigate any outdoor landscaping at any time between the hours of 10:00 a.m. and 8:00 p.m., unless the person using, permitting or allowing the use of the water is using a bucket, hand-carried container, ~~or~~ a hose equipped with an ~~a~~Automatic ~~p~~Positive ~~s~~Self-~~e~~Closing ~~v~~Valve, or a Drip Irrigation system.
- B. No person shall use, permit or allow the use of ~~p~~Potable ~~w~~Water to irrigate any outdoor landscaping or other vegetated area more than fifteen (15) minutes per day per Station when using a landscape irrigation system ~~or a watering device that is not continuously attended, except for. This restriction does not apply to the following:~~
1. A hose equipped with an ~~a~~Automatic ~~p~~Positive ~~s~~Self-~~e~~Closing ~~v~~Valve that is continuously attended;
  2. ~~L~~andscape irrigation systems that exclusively use very low-flow drip-type irrigation systems when no ~~e~~Emitter produces more than two gallons of water per hour;
  3. Irrigation systems employing ~~and~~ weather-based controllers; ~~and~~ ~~or~~
  4. ~~s~~Stream rotor sprinklers that meet a seventy-one percent (71%) efficiency standard.
- C. The restrictions on landscape irrigation contained in this ~~s~~Section do not apply to the following activities or during the following periods of time:

1. Syringing of golf course greens, golf course tees, lawn bowling greens or lawn tennis courts;
2. The conduct of a landscape water management audit to provide for the evaluation and adjustment of a landscape irrigation system; or
3. During plant ~~e~~Establishment ~~p~~Periods as defined in Section 15.11.390 of this Code.

**SECTION 5.** Section 15.10.300 of Chapter 15.10 of Title 15 of the San José Municipal Code is amended to read as follows:

**15.10.300 Water Shortage Measures**

- A. The City Council may, by resolution, declare a state of water shortage whenever it finds that water supplies are expected to be inadequate to meet at least ninety percent (90%) of projected water demand, or whenever a minimum conservation level of ten percent (10%) or more has been established by the Santa Clara Valley Water District.
- B. In adopting such a resolution, the City Council may declare whether the water shortage is a ten percent (10%) shortage; a twenty-five percent (25%) shortage; a thirty percent (30%) shortage; or a forty percent (40%) shortage. In the event that a water shortage resolution adopted by the City Council fails to declare the level of water shortage, the resolution shall be deemed to be a resolution of a ten percent (10%) water shortage.
- C. In addition to the requirements of Part 2 of this Chapter, the provisions of this Part 3 shall apply to all uses of water for such period of time as a water shortage resolution adopted by the Council remains in effect.

D. In addition to the foregoing, the City Council may adopt a resolution implementing water conservation measures whenever it finds the actions are necessary and appropriate under the current or anticipated climate conditions regardless of the drought or water shortage level.

**SECTION 6.** Chapter 15.11 of Title 15 of the San José Municipal Code is amended in its entirety to read as follows:

**CHAPTER 15.11  
WATER EFFICIENT LANDSCAPE STANDARDS FOR NEW AND REHABILITATED  
LANDSCAPING**

## Part 1 General Provisions

### 15.11.010 Purpose

The purpose of this Chapter is to promote the conservation and efficient use of water, and to prevent the waste of this valuable resource by regulating landscape design, installation, and maintenance consistent with the Water Conservation in Landscaping Act, California Government Code Section 65591 et seq.

### 15.11.020 Applicability

A. The requirements of this Chapter shall apply to the following projects:

1. New Construction projects with any Landscape Area with a total Landscape Area equal to or greater than 500 square feet that require a Building Permit pursuant to the provisions of Title 24 of this Code or Development Permit pursuant to the provisions of Chapter 20.100 of Title 20 of this Code; or
2. Rehabilitated Landscape ~~p~~Projects with a total Landscape Area equal to or greater than two thousand five hundred (2,500) square feet that require a Building Permit pursuant to the provisions of Title 24 of this Code or a Development Permit pursuant to the provisions of Chapter 20.100 of Title 20 of this Code.

B. Notwithstanding the provisions of Subsection A above, the requirements of this Chapter shall not apply to:

1. Registered Historic Sites;
2. Ecological Restoration Projects that do not require a permanent irrigation system;
3. Hydraulic Mulch seeding (hydroseeding) for erosion/sedimentation control projects where a permanent irrigation system is not required;
4. Mined-Land Reclamation Projects that do not require a permanent irrigation system;
5. Community gardens, and existing plant collections as part of botanical gardens and arboretums open to the public; and

6. The commercial cultivation of agricultural products including, but not limited to, products from farms, orchards, production nurseries, and forests.
7. Rear Yard New Construction projects of single-family dwellings that do not exceed five hundred (500) square feet of total Landscape Area.
- C. Notwithstanding the provisions of Subsection A above, only Sections 15.11.920, 15.11.1030 and 15.11.1040 shall apply to New Construction and Rehabilitated Landscape Projects within a cemetery.
- ~~D. Notwithstanding the provisions of Subsection A above, only Section 15.11.900.B.1.e shall apply to projects with less than 2,500 square feet of landscaping that use treated or untreated graywater or groundwater captured on site to meet the project's entire landscape water requirement.~~
- ED. Notwithstanding the provisions of Subsection A above, the provisions of Sections 15.11.970, 15.11.980 and 15.11.990 shall not apply to Landscaped Areas only requiring temporary irrigation solely for the plant Establishment Period.

## **Part 2 Definitions**

### **15.11.200 Definitions**

The definitions set forth in this Part shall govern the application and interpretation of this Chapter.

### **15.11.210 Anti-Drain Valve**

"Anti-Drain Valve" or "Check Valve" means a Valve located under a Sprinkler Head to hold water in the system so it minimizes drainage from the lower elevation Sprinkler Heads.

### **15.11.220 Applicant**

"Applicant" means the individual or entity submitting a Landscape Documentation Package, as part of an application for a Development Permit or a Building Permit.

### **15.11.230 Application Rate**

"Application Rate" means the depth of water applied to a given area, usually measured in inches per hour.



#### **15.11.240 Applied Water**

"Applied Water" means the water supplied to the Landscape Area by the irrigation system.

#### **15.11.250 Automatic Irrigation Controller**

"Automatic Irrigation Controller" is a timing device used to remotely control Valves that operates an irrigation system. Automatic Irrigation Controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

#### **15.11.260 Backflow Prevention Device**

"Backflow Prevention Device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

#### **15.11.263 Bubbler**

"Bubbler" means an irrigation head that delivers water to the root zone by flooding the planted area, usually measured in gallons per minute. Bubblers exhibit a trickle, umbrella, or short stream pattern.

#### **15.11.265 Building Permit**

"Building Permit" means a permit required for New Construction pursuant to the provisions of Section 24.02.100 of Chapter 24.02 of Title 24 of this Code.

#### **15.11.270 Certificate of Completion**

"Certificate of Completion" means the document specified in Section 15.11.1050.

#### **15.11.280 Certified Irrigation Designer**

"Certified Irrigation Designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization, or other program such as the U.S. Environmental Protection Agency's Water-Sense irrigation designer certification program, or the Irrigation Association's Certified Irrigation Designer program.



### **15.11.290 Certified Landscape Irrigation Auditor**

"Certified Landscape Irrigation Auditor" means a person certified to perform ~~irrigation~~ ~~audits~~ by an accredited academic institution, a professional trade organization, or other program such as the U.S. Environmental Protection Agency's Water-Sense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

### **15.11.300 Check Valve**

"Check Valve" or "Anti-Drain Valve" means a Valve located under a Sprinkler Head, or other location in the irrigation system, to hold water in the system to prevent drainage from Sprinkler Heads when the sprinkler is off.

### **15.11.305 Compost**

"Compost" means the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

### **15.11.310 ~~Reserved Conversion Factor (0.62)~~**

~~"Conversion Factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.~~

### **15.11.320 Development Permit**

"Development Permit" means any permit issued pursuant to Chapter 20.100 of Title 20 of this Code, with the exception of a sidewalk café permit issued pursuant to Part 12 of Chapter 20.100.

### **15.11.330 Director**

"Director" means the Director of Planning, Building and Code Enforcement.

### **15.11.335 Distribution Uniformity**

"Distribution ~~u~~Uniformity" means the measure of the uniformity of irrigation water over a defined area.

### **15.11.340 Drip Irrigation**

"Drip Irrigation" means any non-spray Low Volume Irrigation system utilizing emission devices, with a Flow Rate measured in gallons per hour. Low Volume Irrigation systems

are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

#### **15.11.350 Ecological Restoration Project**

"Ecological Restoration Project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

#### **15.11.360 Effective Precipitation or Usable Rainfall**

"Effective Precipitation" or "Usable Rainfall (Eppt)" means the portion of total precipitation that becomes available for plant growth.

#### **15.11.370 Emitter**

"Emitter" means a Drip Irrigation emission device that delivers water slowly from the system to the soil.

#### **15.11.380 Established Landscape**

"Established Landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one (1) or two (2) years of growth, but native habitat mitigation area and trees may need three (3) to five (5) years for establishment.

#### **15.11.390 Establishment Period**

"Establishment Period" means the first year after installing plants in the landscape, or the first two (2) years, if irrigation will be terminated after establishment. Typically, most plants are established after one (1) or two (2) years of growth.

#### **15.11.400 Reserved Estimated Total Water Use (ETWU)**

~~"Estimated Total Water Use (ETWU)" means the total water use for the Landscape Area, estimated by applying the formula in Section 15.11.900.~~

#### **15.11.410 Reserved Evapotranspiration Adjustment Factor (ETAF)**

~~"Evapotranspiration Adjustment Factor (ETAF)" means a factor of 0.55 for Residential Landscape and 0.45 for Non-residential Landscape, that, when applied to Reference Evapotranspiration, adjusts for Plant Factors and Irrigation Efficiency, two major influences upon the amount of water that needs to be applied to the Landscape Area.~~

~~The ETAF for existing non-rehabilitated landscapes is 0.8. The ETAF for a new and existing (non-rehabilitated) Special Landscape Area shall not exceed 1.0.~~

#### **15.11.420 Flow Rate**

"Flow Rate" means the rate at which water flows through pipes, Valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

#### **15.11.422 Flow Sensor**

"Flow Sensor" means an inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to Flow Rate. Flow Sensors must be connected to an Automatic Irrigation Controller, or flow monitor capable of receiving flow signals and operating master Valves. A Flow Sensor connected to an Automatic Irrigation Controller may also function as a ~~l~~andscape ~~w~~Water ~~m~~Meter or ~~s~~Submeter.

#### **15.11.424 Friable**

"Friable" means a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

#### **15.11.426 Fuel Modification Plan Guideline**

"Fuel Modification Plan Guideline" means guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

#### **15.11.428 Graywater**

"Graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers.

#### **15.11.430 Hardscapes**

"Hardscapes" means any durable material (Pervious and non-Pervious).

#### **15.11.440 Hydrozone**

"Hydrozone" means a portion of the Landscape Area having plants with similar water needs and rooting depth. A Hydrozone may be irrigated or non-irrigated.

#### **15.11.450 Infiltration Rate**

"Infiltration Rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

#### **15.11.460 Invasive Plant Species**

"Invasive Plant Species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive Plant Species may be regulated by county agricultural agencies as noxious species. Lists of Invasive Plant Species are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

#### **15.11.470 Irrigation Audit**

"Irrigation Audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit includes, but is not limited to: inspection, system tune-up, system test with ~~d~~Distribution ~~u~~Uniformity or emission uniformity, reporting Overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Water~~S~~Sense" labeled auditing program.

#### **15.11.480 Irrigation Efficiency**

"Irrigation Efficiency (IE)" means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation Efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The Irrigation Efficiency for purposes of this Chapter is 0.75 for overhead spray devices and 0.81 for Drip Irrigation systems.

#### **15.11.490 Landscape Architect**

"Landscape Architect" means a person who holds a license to practice landscape architecture in the State of California, pursuant to California Business and Professions Code, Section 5615, as may be amended.

#### **15.11.500 Landscape Area**

"Landscape Area" means all the planting areas, and Water Features in a landscape design plan. The Landscape Area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other Pervious or non-Pervious Hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

#### **15.11.510 Landscape Contractor**

"Landscape Contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

#### **15.11.520 Landscape Documentation Package**

"Landscape Documentation Package" means the documents required under Section 15.11.910.

#### **15.11.530 Landscape Project**

"Landscape Project" means the total area of landscape in a project as defined in "Landscape Area" under Section 15.11.500 for purposes of this Chapter, that meets the applicability requirements set forth in Section 15.11.020.

#### **15.11.535 Landscape Water Meter**

"Landscape Water Meter" means an inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

#### **15.11.540 Lateral Line**

"Lateral Line" means the water delivery pipeline that supplies water to the eEmitters or sprinklers from the Valve.

#### **15.11.550 Local Water Purveyor**

"Local Water Purveyor" means any entity, including a public agency, city, county, city and county, or private water company that provides retail water service.

#### **15.11.560 Low Volume Irrigation**

"Low Volume Irrigation" means the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume ~~e~~Emitters such as Drip Irrigation, drip lines, and ~~b~~Bubblers. Low Volume Irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

#### **15.11.570 Main Line**

"Main Line" means the pressurized pipeline that delivers water from the water source to the Valve or outlet.

#### **15.11.575 Master Shut-off Valve**

"Master Shut-off Valve" is an automatic Valve installed at the irrigation supply point which controls water flow into the irrigation system. When the Master Shut-off Valve is closed water will not be supplied to the irrigation system. A Master Shut-off Valve will greatly reduce any water loss due to a leaky Station Valve.

#### **15.11.580 Reserved Maximum Applied Water Allowance (MAWA)**

~~"Maximum Applied Water Allowance (MAWA)" means the upper limit of annual Applied Water for the established Landscape Area. It is based upon the Reference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including Recreational Areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens are subject to the MAWA with an ETAF not to exceed 1.0.~~

#### **15.11.585 Reserved Median**

~~"Median" is an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.~~

#### **15.11.590 Mined-Land Reclamation Projects**

"Mined-Land Reclamation Projects" mean any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975, as may be amended.

### **15.11.600 Mulch**

"Mulch" means any organic material such as leaves, bark, straw, Compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

### **15.11.605 Native Plant**

"Native Plant" means a plant that is part of the balance of nature that has developed over hundreds or thousands of years in California or local geographic region.

### **15.11.610 New Construction**

"New Construction" means, for the purposes of this Chapter, a new building or structure with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

### **15.11.615 Non-Residential Landscape**

"Non-Residential Landscape" means landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated Recreational Areas.

### **15.11.620 Operating Pressure**

"Operating Pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

### **15.11.625 Overhead Sprinkler Irrigation Systems**

"Overhead Sprinkler Irrigation Systems" means systems that deliver water through the air (e.g., spray heads and rotors).

### **15.11.630 Overspray**

"Overspray" means the water which is delivered beyond the target area.

### **15.11.640 Pervious**

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.



#### **15.11.650 Plant Factor**

"Plant Factor" is a factor, when multiplied by the Reference Evapotranspiration ("ET<sub>o</sub>", measured in inches per year), estimates the amount of water needed by plants. For purposes of this Chapter, the Plant Factor range for very low water use plants is 0.0 to 0.1, the Plant Factor range for low water use plants is 0.1 to 0.3, the Plant Factor range for moderate water use plants is 0.4 to 0.6, and the Plant Factor range for high water use plants is 0.7 to 1.0. Plant Factors cited in this Chapter are derived from the publication "Water Use Classification of Landscape Species" ("WUCOLS") as may be amended. Plant Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

#### **15.11.660 Precipitation Rate**

"Precipitation Rate" means the rate of application of water measured in inches per hour.

#### **15.11.665 Rear Yard**

"Rear Yard" means the same as defined in Section 20.200.1460, or as later amended.

#### **15.11.670 Record Drawing**

"Record Drawing" or "As-Built" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

#### **15.11.680 Recreational Area**

"Recreational Area" means areas, excluding private single-family residential areas, designated for active play, recreation, or public assembly, in parks, sports fields, picnic grounds, amphitheater, or golf courses, tees, fairways, roughs, surrounds and greens.

#### **15.11.690 Recycled Water**

"Recycled Water" means treated or recycled wastewater of a quality suitable for non-potable uses including landscape irrigation and Water Features. This water is not intended for human consumption.

#### **15.11.700 Reference Evapotranspiration (ETo)**

"Reference Evapotranspiration (ETo)" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. ~~Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.~~

#### **15.11.710 Rehabilitated Landscape**

"Rehabilitated Landscape" means any ~~re~~-landscaping project that requires a Development Permit or a Building Permit where the modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet.

#### **15.11.715 Residential Landscape**

"Residential Landscape" means landscapes surrounding single-family or multifamily homes.

#### **15.11.718 Registered Historic Site**

"Registered Historic Site" means Sites and/or structures and/or buildings that are either designated City landmarks, California Historical Landmarks, or listed in the California Register of Historical Places.

#### **15.11.720 Run-off**

"Run-off" means water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For example, Run-off may result from water that is applied at too great a rate (Application Rate exceeds Infiltration Rate), or when there is a slope.

#### **15.11.730 Soil Moisture Sensor**

"Soil Moisture Sensor" means a device that measures the amount of water in the soil. The device may also initiate or suspend an irrigation event.

#### **15.11.740 Soil Texture**

"Soil Texture" means the classification of soil based on its percentage of sand, silt, and clay.

**15.11.750 Reserved Special Landscape Area (SLA)**

~~"Special Landscape Area (SLA)" means an area of the landscape dedicated solely to edible plants, Water Features and areas using Recycled Water, and/or Recreational Areas.~~

**15.11.760 Sprinkler Head**

"Sprinkler Head" means a device which delivers water through a nozzle.

**15.11.770 Static Water Pressure**

"Static Water Pressure" means the pipeline or Local Water Purveyor's water supply pressure when water is not flowing.

**15.11.780 Station**

"Station" means an area served by one Valve or by a set of Valves that operate simultaneously.

**15.11.785 Submeter**

"Submeter" means a metering device to measure water applied to the landscape that is installed after the primary utility water meter.

**15.11.790 Swing Joint**

"Swing Joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

**15.11.800 Turf**

"Turf" means a ground cover surface of mowed, natural grass.

**15.11.810 Valve**

"Valve" means a device used to control the flow of water in the irrigation system.

**15.11.820 Water Conserving Plant Species**

"Water Conserving Plant Species" means a plant species identified as having a low Plant Factor.

### **15.11.830 Water Feature**

"Water Feature" means a design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not Water Features ~~and, therefore, are not subject to the Water Budget Calculation.~~

### **15.11.840 Watering Window**

"Watering Window" means the time of the day irrigation is allowed.

### **15.11.850 Water Use Classification of Landscape Species (WUCOLS)**

"Water Use Classification of Landscape Species (WUCOLS)" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension and the Department of Water Resources 2014, as may be amended.

## **Part 3 Landscape Installation Requirements**

### **15.11.900 Water Efficiency Design Requirements**

~~A. — Landscape areas shall be designed to achieve water efficiency as required by this Chapter.~~

~~B. — Applicants may choose one of the following options to demonstrate that the Landscape Project meets the water efficiency criteria required by this Chapter:~~

~~1. — Plant Type Restriction Option:~~

~~a. — Incorporate compost at the rate of at least four (4) cubic yards per 1,000 square feet to a depth of six (6) inches into the Landscape Area, unless contraindicated by a soil test.~~

~~b. — Turf shall comply with all of the following:~~

- ~~1) Turf shall not exceed twenty-five percent (25%) of the landscape area or 1,250 square feet, whichever is less in Residential Landscape;~~
  - ~~2) There shall be no Turf in Non-residential Landscape;~~
  - ~~3) Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every four (4) feet of horizontal length;~~
  - ~~4) Turf is prohibited in parkways less than ten (10) feet wide, except for parkways adjacent to a parking strip and used for the entry or exit of vehicles;~~
  - ~~5) Any Turf in parkways must be irrigated by subsurface irrigation or by other technology that creates no Overspray or runoff.~~
- ~~c. Non-Turf Plant Material shall comply with the following:~~
- ~~1) For Residential Landscape Areas less than or equal to 2,500 square feet low water use, very low water use or no water use plants (average WUCOLS Plant Factor of 0.3) shall be installed in at least seventy-five percent (75%) of the portion of the Landscape Area where Turf is not installed, excluding areas planted in edibles and areas using Recycled Water;~~
  - ~~2) For Residential Landscape Areas greater than 2,500 square feet low water use, very low water use or no water use plants (average WUCOLS plant factor of 0.3) shall be installed in at least eighty percent (80%) of the portion of the Landscape Area where Turf is not installed, excluding areas planted in edibles and areas using Recycled Water;~~
  - ~~3) For Non-residential Areas, low water use, very low water use or no water use plants (average WUCOLS Plant Factor of 0.3) shall be installed in one hundred percent (100%) of the Landscape Area, excluding areas planted in edibles and areas using Recycled Water; and~~
  - ~~4) A minimum of three (3) inch layer of Mulch shall be applied on all exposed soil surfaces of planting areas except Turf~~

~~areas, creeping or rooting groundcover, or direct seeding applications where Mulch is contraindicated.~~

- ~~d. If Water Features are installed, the surface area of the Water Features shall not exceed twenty percent (20%) of the Landscape Area.~~
- ~~e. Irrigation systems for projects with a Landscape Area of 2,500 square feet or less shall comply with the following, in lieu of the requirements of Sections 15.11.970, 15.11.980 and 15.11.990:~~
  - ~~1) Automatic Irrigation Controllers are required and must use evapotranspiration or Soil Moisture Sensor data.~~
  - ~~2) Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.~~
  - ~~3) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.~~
  - ~~4) Manual shut-off Valves (such as a gate Valve, ball Valve, or butterfly Valve) shall be installed as close as possible to the point of connection of the water supply.~~
  - ~~5) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014, "Landscape Irrigation Sprinkler and Emitter Standard." All Sprinkler Heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.~~
- ~~f. Irrigation systems for projects with a Landscape Area of greater than 2,500 square feet or less shall comply with the requirements of Sections 15.11.970, 15.11.980 and 15.11.990.~~
- ~~g. For projects with a Landscape Area 2,500 square feet or less, the Applicant, if different than the property owner, must at the time of final inspection, provide the owner of the property with a Certificate of Completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.~~

~~2. Water Budget Calculation Option:~~

- ~~a. The Plant Factor used shall be from WUGOLS, as may be amended. The Plant Factor in 2015 ranges from 0 to 0.1 for very low water use plants, from 0.1 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.~~
- ~~b. All Water Features shall be included in the high water use Hydrozone and temporarily irrigated areas shall be included in the low water use Hydrozone.~~
- ~~c. Where low and moderate water use plants are mixed within a single Hydrozone, the entire Hydrozone area shall be classified as moderate water use for purposes of a Water Budget Calculation. High water use plants shall not be mixed with low or moderate water use plants.~~
- ~~d. All Special Landscape Areas shall be identified and their water use included in the Water Budget Calculation.~~
- ~~e. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8. The ETAF for the remaining Landscape Area shall not exceed 0.55 residential and 0.45 for non-residential.~~
- ~~f. Irrigation Efficiency shall be 75% for overhead spray devices and 81% for drip irrigation devices.~~
- ~~g. The Maximum Applied Water Allowance shall be calculated using the equation:~~

$$\text{MAWA} = (\text{ETo}) (0.62) [(\text{ETAF} \times \text{LA}) + (1 - \text{ETAF}) \times \text{SLA}]$$

~~Where:~~

~~MAWA = Maximum Applied Water Allowance (gallons per year)~~

~~ETo = Reference Evapotranspiration (inches per year)~~

~~0.62 = Conversion Factor (to gallons)~~



~~Varies see 15.11.410 = Evapotranspiration Adjustment Factor (ETAF)~~

~~LA = Landscape Area including SLA (square feet)~~

~~1-ETAF = Water Allowance for SLA~~

~~SLA = Special Landscape Area (square feet)~~

~~h. Estimated Total Water Use (ETWU) shall be calculated for each Hydrozone and Special Landscape Area using the equation below. The sum of the ETWU calculated for all Hydrozones shall not exceed the MAWA.~~

~~Formula for Regular Landscape Areas~~

$$\text{ETWU} = (\text{ETo}) (0.62) \left( \frac{\text{PF}}{\text{IE}} \right) (\text{HA})$$

~~Formula for Special Landscape Areas~~

$$\text{ETWU} = (\text{ETo}) (0.62) (\text{SLA})$$

~~Where:~~

~~ETWU = Estimated Total Water Use per year (gallons)~~

~~ETo = Reference Evapotranspiration (inches)~~

~~PF = Plant Factor from WUCOLS~~

~~HA = Hydrozone Area [high, medium, and low water use areas] (square feet)~~

~~SLA = Special Landscape Area (square feet)~~

~~0.62 = Conversion Factor~~

~~IE = Irrigation Efficiency (minimum 0.75 for overhead spray devices and 0.81 for drip irrigation devices.)~~

~~3. Recycled Water Option:~~

~~At least 90% of the square footage of the Landscape Area shall be irrigated with Recycled Water.~~

### **15.11.910 Landscape Documentation Package**

- A. A Landscape Documentation Package conforming to this Chapter shall be submitted to the Director for the New Construction and Rehabilitated Landscape ~~P~~Projects described in Section 15.11.020. The Landscape Documentation Package shall be considered as part of the Development Permit application if a Development Permit is required or shall be included with a Building Permit application. Failure to submit the Landscape Documentation Package required by this Section shall result in a determination of incompleteness pursuant to the provisions of Section 20.100.150 of this Code if a Development Permit is required or shall be deemed an incomplete application pursuant to the provisions of Section 24.02.210A. of this Code if a Building Permit, but not a Development Permit, is required.
- B. Except as provided in Section 15.11.920 B., each Landscape Documentation Package shall include the following elements, which are described in further detail in Sections 15.11.920 through 15.11.1020 of this Chapter:
1. Project information:
    - a. Date;
    - b. Applicant name and property owner, if different;
    - c. Project address (if available, parcel and/or lot number(s));
    - d. Total Landscape Area (square feet);
    - e. Project type (e.g., New Construction or Rehabilitated Landscape);
    - f. Water supply type (e.g., potable, recycled, well) and identify the Local Water Purveyor if the Applicant is not served by a private well;
    - g. Checklist of all documents in the Landscape Documentation Package;
    - h. Project contact information for the Applicant and property owner if the property owner is not the Applicant;

~~i. Proposed method of complying with requirements of this Chapter (e.g., Plant Type Restriction, Water Budget Calculation, or Recycled Water) as specified in Section 15.11.900;~~

ii. Applicant signature and date along with the following statement: "I agree to comply with, or cause anyone who works on the Landscape Project to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete Landscape Documentation Package that complies with Chapter 15.11 of Title 15 of the San José Municipal Code."

~~2. Water efficient landscape worksheet as specified in Section 15.11.920;~~

~~32.~~ Soil management report as specified in Section 15.11.930;

~~43.~~ Landscape design plan as specified in Section 15.11.940;

~~54.~~ Irrigation design plan as specified in Section 15.11.970; and

~~65.~~ Grading design plan as specified in Section 15.11.1020.

#### **15.11.920 Reserved Water Efficient Landscape Worksheet**

~~A. Applicants who elect to comply with this Chapter through the Water Budget Calculation Option described in Section 15.11.900 shall complete a Water Efficient Landscape Worksheet in a form approved by the Director and submit it as part of the Landscape Documentation Package as specified in Section 15.11.910.~~

~~B. Applicants who elect to comply with this Chapter through the Plant Type Restriction Option or the Recycled Water Option described in Section 15.11.900 shall not be required to submit a Water Efficient Landscape Worksheet as part of the Applicant's Landscape Documentation Package.~~

#### **15.11.930 Soil Management Report**

In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the Applicant as follows, for any project that has a Landscape Area greater than two thousand five hundred (2,500) square feet ~~or that uses the water budget calculation option:~~

- A. Applicant shall submit soil samples to a plant soil laboratory for analysis and recommendations.
1. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
  2. The soil analysis shall include:
    - a. Soil Texture;
    - b. Infiltration Rate determined by laboratory test or Soil Texture Infiltration Rate table;
    - c. pH;
    - d. Total soluble salts;
    - e. Sodium;
    - f. Percent organic matter; and
    - g. Recommendations.
- B. In projects with multiple landscape installations (i.e. production home developments) a soil sampling rate of one (1) in seven (7) lots or approximately fifteen percent (15%) will satisfy this requirement. Large ~~l~~andscape ~~p~~rojects shall sample at a rate equivalent to one (1) in seven (7) lots.
- C. Applicant shall comply with one of the following:
1. If significant mass grading is not planned, the soil management report shall be performed after grading and the Landscape Areas are prepared for plant installation and submitted as part of the Landscape Documentation Package; or
  2. If significant mass grading is planned, the soil analysis report shall be submitted as part of the Certificate of Completion.
- D. Applicant shall certify that the soil management report will be provided to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

- E. Applicant shall submit documentation verifying implementation of the soil management report recommendations to the Director with the Certificate of Completion.

#### **15.11.940 Landscape Design Plan Requirements**

- A. Except as otherwise provided for in this Section, a landscape design plan arranged by Hydrozone shall be submitted as part of the Landscape Documentation Package. The form of the landscape design plan and the information and data required to be set forth therein shall be as prescribed by the Director and shall, at a minimum:
1. Delineate and label each Hydrozone by number, letter, or other method;
  2. Identify each Hydrozone as low, moderate, high water, or mixed water use;
  - ~~3. Temporarily irrigated areas of the Landscape Area shall be included in the low water use Hydrozone for the Water Budget Calculation if a Water Budget Calculation is prepared pursuant to Section 15.11.900;~~
  - ~~43.~~ Identify Recreational Areas;
  - ~~54.~~ Identify areas permanently and solely dedicated to edible plants;
  - ~~65.~~ Identify areas irrigated with Recycled Water;
  - ~~76.~~ Identify type of Mulch and application depth;
  - ~~87.~~ Identify soil amendments, type, and quantity;
  - ~~98.~~ Identify type and surface area of Water Features;
  - ~~109.~~ Identify Hardscapes (Pervious and non-Pervious);
  - ~~1110.~~ Identify location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater. Stormwater best management practices shall be included in the landscape design plan and examples include, but are not limited to:
    - a. Infiltration beds, swales, and basins that allow water to collect and soak into the ground;

- b. Constructed wetlands and retention ponds that retain water, handle excess flow, and filter pollutants; and
- c. Pervious or porous surfaces (e.g., permeable pavers or blocks, Pervious or porous concrete, etc.) that minimize runoff.

**4211.** Identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);

**4312.** Identify on-center spacing for tree(s) measuring from the center of the tree(s) trunk(s) to adjacent Hardscape and structures;

**4413.** Contain the following statement: "I agree to comply with, or cause anyone who works on the landscape design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete landscape design plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code"; and

**4514.** Bear the signature of the Landscape Architect authorized by the property owner or Applicant to design the landscape.

~~B. Applicants who have elected to use the Plant-Type Restriction Option or the Recycled Water Option as a means of demonstrating compliance with this Chapter shall not be required to show in the landscape design plan that the plant material to be installed does not exceed the MAWA.~~

#### **15.11.950 Landscape Design Plan Criteria - Plant Material, Selection, and Grouping**

- A. The landscape design plan shall include Water Conserving Plant Species.
- B. Plant varieties that require large amounts of irrigation water to survive the hot dry summer season shall not be used ~~except when the plant is located within a micro-climate area of the Landscape Project that maintains plant health and appearance.~~
- C. Each Hydrozone shall have plant materials with similar water use, with the exception of Hydrozones with plants of mixed water use, as specified in Section 15.11.980.
- D. Plant material shall comply with the following:

1. Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the Landscape Project site.
  2. Moderate water use, low water use, very low water use or no water use plants (average WUCOLS Plant Factor of 0.3) shall be installed in one hundred percent (100%) of the portion of the Landscape Area, excluding areas planted in edibles ~~and areas using Recycled Water~~.
  3. Fire prone plant materials and highly flammable Mulches are prohibited;
  4. The use of Invasive Plant Species and/or noxious plant species is prohibited. Invasive Plant Species listed in the Bay Area invasive species list by the California Invasive Plant Council, or its successor, are prohibited;
  5. To the extent possible, native or a plant identified as native to California by the WUCOLS database, and non-Invasive Plant Species to the San Francisco Bay Area identified by the California Invasive Plant Council shall be installed in Landscape Areas; and
  6. High water use plants, characterized by a Plant Factor of 0.7 to 1.0, are prohibited, excluding areas planted in edibles ~~and areas using Recycled Water~~.
- ~~E. All plant materials used in the Landscape Area shall be chosen to ensure that the estimated Applied Water use recommended does not exceed the MAWA for Applicants who choose the Water Budget Calculation Option described in Section 15.11.900 to demonstrate that the Landscape Project meets the water efficiency criteria required by this Chapter.~~
- ~~FE. If turf is part of the landscape design plan, the installation shall comply with the following~~Turf is prohibited unless located in a Recreational Area or a Rear Yard of a single family dwelling. Where Turf is permitted, the following restrictions apply:
1. Turf is not allowed on slopes greater than twenty-five percent (25%) where the toe of the slope is adjacent to an impermeable Hardscape and where twenty-five percent (25%) means one (1) foot of vertical elevation change for every four (4) feet of horizontal length (rise divided by run x 100 = slope percent); and



2. Turf areas that are less than ten (10) feet wide shall be irrigated in accordance with Section 15.11.980.
  3. Turf shall not exceed twenty-five percent (25%) of the Recreational Area, unless otherwise approved by the Director if the lawn area exclusively provides functional recreational space.
- ~~GF.~~ ~~Fire prone plant materials and highly flammable mulches are prohibited. No more than fifty percent (50%) of a lot available for Landscape Area may be Hardscape, and must be planted with native or non-Invasive Plant Species or other non-Hardscape features shall be installed. Invasive Plant Species are prohibited.~~
1. —For the purpose of this Section, available for Landscape Area shall mean the entire lot, less the footprint of buildings or structures, driveways, parking lots, setbacks, and any other areas required to preserve state and federal tax credits for affordable housing, and any other areas walkway as required by state or federal law.
  - 4-2. This subsection shall not apply to residential Rear Yard only projects.
- ~~H.~~ ~~The use of Invasive Plant Species and/or noxious plant species is prohibited.~~
- ~~I.~~ ~~High water use plants, characterized by a Plant Factor of 0.7 to 1.0, are prohibited in Medians.~~
- ~~JG.~~ Soil preparation, amendments and ~~m~~Mulching shall comply with the following:
1. Prior to the planting of any materials, compacted soils shall be transformed to a ~~f~~Eriable condition. On engineered slopes, only amended planting holes need meet this requirement.
  2. For landscape installations, Compost at a rate of a minimum of four (4) cubic yards per one thousand (1,000) square feet of permeable area shall be added and tilled into the soil to a depth of six (6) inches. Soils with greater than six percent (6%) organic matter indicated by soil test in the top six (6) inches of soil are exempt from adding Compost and tilling.
  3. A minimum three inch (3") layer of Mulch shall be applied on all exposed soil surfaces of planting areas except in Turf areas, creeping or rooting groundcovers, or direct seeding applications where Mulch is contraindicated. To provide habitat for beneficial insects and other wildlife, up to five percent (5%) of the Landscape Area may be left without Mulch. Designated insect areas must be included in the landscape plan as such.

4. Stabilizing Mulching products shall be used on slopes.
5. The Mulching portion of the seed/Mulch slurry in hydro-seeded applications shall meet the Mulching requirement referenced in Subsection 4 of this Section.
6. Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected.

#### **15.11.960 Landscape Design Plan Criteria - Water Features**

- A. Recirculating Systems or Recycled Water, where available, shall be used for decorative Water Features, such as ponds, lakes, waterfalls, and fountains.
- B. If Water Features are installed, the surface area of the Water Features shall not exceed twenty percent (20%) of the Landscape Area.

#### **15.11.965 Irrigation Standards for Smaller Projects**

- A. Irrigation systems for projects with a Landscape Area of two thousand five hundred (2,500) square feet or less shall comply with the following, in lieu of the requirements of Sections 15.11.970, 15.11.980 and 15.11.990:
  1. Spray Sprinkler Heads and Overhead Sprinkler Irrigation Systems are prohibited, except where Turf is permitted.
  2. Drip or Bubbler irrigation systems shall be installed.
  3. Automatic Irrigation Controllers are required and must use evapotranspiration or Soil Moisture Sensor data.
  4. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
  5. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.
  6. Manual shut-off Valves (such as a gate Valve, ball Valve, or butterfly Valve) shall be installed as close as possible to the point of connection of the water supply.

- B. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014, "Landscape Irrigation Sprinkler and Emitter Standard." All Sprinkler Heads installed in the Landscape Area must document a Distribution Uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
- C. Irrigation systems for projects with a Landscape Area of greater than two thousand five hundred (2,500) square feet shall comply with the requirements of Sections 15.11.970, 15.11.980 and 15.11.990.
- D. For projects with a Landscape Area two thousand five hundred (2,500) square feet or less, the Applicant, if different than the property owner, must at the time of final inspection, provide the owner of the property with a Certificate of Completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

#### **15.11.970 Irrigation Design Plan**

An irrigation design plan shall be submitted as part of the landscape Documentation Package for any project that has a Landscape Area greater than two thousand five hundred (2,500) square feet ~~or that uses the water budget calculation option~~. The irrigation design plan shall be consistent with the Hydrozones for the Landscape Areas. The irrigation design plan shall be set forth in a form prescribed by the Director and at a minimum shall contain all of the following:

- A. Location and size of separate water meters for Landscape Areas;
- B. Location, type and size of all components of the irrigation system, including controllers, Main and Lateral Lines, Valves, Sprinkler Heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and Backflow Prevention Devices;
- C. Static Water Pressure at the point of connection to the public water supply;
- D. Flow Rate (gallons per minute), Application Rate (inches per hour), and design Operating Pressure (pressure per square inch) for each Station;
- E. Recycled Water irrigation systems if applicable as specified in Section 15.11.1000;
- F. The statement: "I agree to comply with, or cause anyone who works on the irrigation design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete irrigation design

plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code"; and

- G. The signature of a Landscape Architect or Certified Irrigation Designer authorized by the property owner or the Applicant to design the irrigation system.

#### **15.11.980 Irrigation Design Plan Criteria - System Requirements**

For the efficient use of water, an irrigation design plan meeting the following design criteria for irrigation systems shall be included in the irrigation design plan and submitted as part of the Landscape Documentation Package for any project that has a Landscape Area greater than two thousand five hundred (2,500) square feet ~~or that uses the water budget calculation option:~~

- A. Relevant information from the soil management plan, such as soil type and Infiltration Rate, shall be utilized when designing irrigation systems.
- B. Spray Sprinkler Heads and Overhead Sprinkler Irrigation Systems are prohibited, except where Turf is permitted. Drip or Bubblers irrigation systems shall be installed.
- BC. All irrigation systems shall be designed to avoid Run-off, low head drainage, Overspray and other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways or structures.
- CD. The design of the irrigation system shall conform to the Hydrozones of the landscape design plan.
- DE. Irrigation systems shall be designed, installed, and maintained to meet, at a minimum, an Irrigation Efficiency of 0.75 for overhead spray devices, where allowed, and 0.81 for drip system devices.
- EE. All Landscape Areas in excess of ten thousand (10,000) square feet shall be designed to allow for the current and future use of Recycled Water except as follows:
1. Landscape Areas in excess of ten thousand (10,000) square feet do not have to be designed to allow for the current and future use of Recycled Water where the Director grants an exemption to the requirement set forth in Subsection E. of this Section on the basis that Recycled Water is not available, and will not be available in the foreseeable future to serve the Landscape Project.

- ~~FG~~. In Mulched planting areas, the use of Low Volume irrigation is required to maximize water infiltration into the root zone.
- ~~GH~~. Sprinkler Heads and other emission devices shall have matched Precipitation Rates, unless otherwise directed by the manufacturer's recommendations.
- ~~HI~~. Head to head coverage is required at a minimum, with consideration for average wind conditions. However, sprinkler spacing shall be designed to achieve the highest possible distribution using the manufacturer's recommendations.
- ~~IJ~~. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or Overspray.
- ~~JK~~. Overhead Sprinkler Irrigation Systems shall not be permitted within twenty-four (24) inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include Drip Irrigation, or other Low Volume Irrigation technology. The setback area may be planted or unplanted. The surfacing of the setback may be Mulch, gravel, or other porous material. These restrictions may be modified if:
1. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping;
  2. The Landscape Area is adjacent to permeable surfacing and no runoff occurs; or
  3. The Certified Irrigation Designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in this Section. Prevention of Overspray and runoff must be confirmed during the Irrigation Audit required by Section 15.11.1040.
- ~~KL~~. Slopes greater than twenty-five percent (25%) shall not be irrigated with an irrigation system with an ~~a~~Application ~~r~~Rate exceeding 0.75 inches per hour. This restriction may be modified if the Certified Landscape Designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the Irrigation Audit required by Section 15.11.1040.
- ~~LM~~. Each Valve shall irrigate a Hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

- MN.** Sprinkler Heads and other emission devices shall be selected based on what is appropriate for the plant type within that Hydrozone.
- NO.** Trees shall be placed on separate Valves from shrubs, groundcovers, and ~~t~~**T**urf, where feasible.
- OP.** Individual Hydrozones that mix plants of moderate and low water use, ~~or moderate and high water use,~~ may be allowed if:
1. The Plant Factor calculation is based on the proportions of the respective plant water uses and their Plant Factor; or
  2. The Plant Factor of the higher water using plant is used for calculations.
- PQ.** Individual Hydrozones that mix high and low water use plants shall not be permitted.
- QR.** On the landscape design plan and irrigation design plan, Hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, the areas irrigated by each Valve shall be designated and a number assigned to each Valve.
- RS.** If the water pressure is below or exceeds the recommended pressure for the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
1. If the Static Water Pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.
  2. Static Water Pressure, dynamic or Operating Pressure, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.

#### **15.11.990 Irrigation Design Plan Criteria - Equipment**

For the efficient use of water, an irrigation design plan meeting the following design criteria for irrigation equipment shall be included in the irrigation design plan and submitted as part of the Landscape Documentation Package for any project that has a

Landscape Area greater than two thousand five hundred (2,500) square feet ~~or that uses the water budget calculation option:~~

- A. Landscape ~~w~~Water ~~m~~Meters, defined as either a customer service meter provided by a Local Water Purveyor or privately owned meter submeter, shall be installed for all irrigated Non-~~r~~Residential Landscapes of one thousand (1,000) to five thousand (5,000) square feet and all irrigated Residential Landscapes of five thousand (5,000) square feet or greater. Irrigated Non-~~r~~Residential Landscapes of more than five thousand (5,000) square feet shall provide a separate meter as required by Water Code Section 535, as may be amended or renumbered.
- B. Automatic Irrigation Controllers utilizing either evapotranspiration or Soil Moisture Sensor data utilizing non-volatile memory shall be required for irrigation scheduling in all irrigation systems.
- C. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation shall be avoided during windy or freezing weather or during rain.
- D. Manual shut-off Valves (such as a gate Valve, ball Valve, or butterfly Valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a Main Line break) or routine repair.
- E. Backflow Prevention Devices and Automatic Irrigation Controllers shall be installed in all irrigation systems and must be able to accommodate all aspects of the design.
- F. Flow ~~s~~Sensors that detect high flow conditions created by system damage or malfunction are required for all Non-~~r~~Residential Landscapes and for Residential Landscapes of five thousand (5,000) square feet or larger.
- G. Where permitted, Sprinkler Heads and other emission devices shall have matched Precipitation ~~r~~Rates.
- H. Where permitted, Sprinkler Head spacing shall be head to head.
- I. Swing Joints or other riser-protection components are required on all risers subject to damage that are adjacent to Hardscapes or in high traffic areas of turfgrass.



- J. Check Valves or Anti-Drain Valves are required on all irrigation systems where low point drainage could occur.
- K. Master shut-off Valves are required except for irrigation systems that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.
- L. All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard." All Sprinkler Heads installed in the Landscape Area must document a ~~d~~Distribution ~~u~~Uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

#### **15.11.1000 Landscape Irrigation Systems with Recycled Water**

- A. Plants and trees that will be irrigated with Recycled Water as described in the landscape design plan shall be plants adapted for the San José climate and tolerant of salinity buildup in the soil. Plants must adhere to the requirements in Section 15.11.950 of this Chapter.
- B. All Recycled Water irrigation systems shall:
  - 1. Be metered separately from the ~~p~~Potable ~~w~~Water supply system;
  - 2. Have no on-site cross-connections to the ~~p~~Potable ~~w~~Water supply system; and
  - 3. Be designed and operated in accordance with applicable laws.

#### **15.11.1010 Irrigation Schedules**

For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

- A. Irrigation scheduling shall be regulated by Automatic Irrigation Controllers.
- B. Overhead irrigation shall be restricted between the hours specified in Chapter 15.10 of this Code.

- C. The irrigation schedule shall include run times, emission device, ~~f~~Flow ~~r~~Rate, and current Reference Evapotranspiration. Actual irrigation schedules shall be regulated by Automatic Irrigation Controllers using current Reference Evapotranspiration data for San José or on-site moisture data.
- D. Parameters used to set the Automatic Irrigation Controller shall be developed and submitted for each of the following:
1. The Establishment Period;
  2. The Established Landscape; and
  3. Temporarily irrigated areas.
- E. Each irrigation schedule shall consider for each Station all of the following that apply:
1. Irrigation interval (days between irrigation);
  2. Irrigation run times (hours or minutes per irrigation event to avoid runoff);
  3. Number of cycle starts required for each irrigation event to avoid runoff;
  4. Amount of Applied Water scheduled to be applied on a monthly basis;
  5. Application Rate Setting;
  6. Root depth setting;
  7. Plant type setting;
  8. Soil type;
  9. Slope factor setting;
  10. Shade factor setting; and
  11. Irrigation uniformity or efficiency setting.
- F. The landscape irrigation schedule shall be consistent with the requirements of Chapter 15.10 of this Code.

### **15.11.1020 Grading Design Plan**

- A. For the efficient use of water, grading of the Landscape Project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package for any project that has a Landscape Area greater than two thousand five hundred (2,500) square feet ~~or that uses the water budget calculation option~~. A comprehensive grading plan prepared by a civil engineer in relation to another City permit application satisfies this requirement.
- B. The Applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the Landscape Area including:
1. Height of graded slopes;
  2. Drainage patterns;
  3. Pad elevations;
  4. Finish grade; and
  5. Stormwater retention improvements, if applicable.
- C. To prevent excessive erosion and runoff, Applicants shall:
1. Grade so that all irrigation and normal rainfall remains within property lines and does not:
    - a. Drain on to non-permeable ~~h~~Hardscapes; or
    - b. Allow for ponding water in violation of applicable law;
  2. Avoid disruption of natural drainage patterns and undisturbed soil; and
  3. Avoid soil compaction in Landscape Areas.
- D. The grading design plan shall contain the following statement: "I agree to comply with, or cause anyone who works on the grading design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete grading design plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code" and shall bear the signature of a licensed professional as authorized by law.

#### **15.11.1030 Landscape and Irrigation Maintenance Schedule**

- A. Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted to the Director by the Applicant with the Certificate of Completion.
- B. A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching Turf areas, where permitted; topdressing with Compost; replenishing Mulch; fertilizing; pruning; weeding in all Landscape Areas, and removing any obstructions to emission devices. Operation of the irrigation system outside the Watering Window is allowed for auditing, system maintenance and during plant Establishment Periods.
- C. Irrigation systems shall be tested, adjusted and repaired following the manufacturers' specifications and the recommendations of the landscape professional who signed the Landscape Design Plan.
- D. Failed plants shall be replaced with the same or functionally equivalent plants that may be size-adjusted as appropriate for the stage of growth of the overall installation. Replacement plants must adhere to the requirements in Section 15.11.950 of this Chapter.
- E. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.
- F. A diagram of the irrigation plan showing Hydrozones shall be kept with the irrigation controller for subsequent management purposes.

#### **15.11.1040 Irrigation Audit**

- A. The Applicant shall submit an Irrigation Audit report with the Certificate of Completion for any New Construction or Rehabilitated Landscape ~~p~~Project that ~~uses the water budget calculation or~~ has a Landscape Area greater than two thousand five hundred (2,500) square feet. The Irrigation Audit may include, but is not limited to: inspection, system tune-up, system test with ~~d~~Distribution ~~u~~Uniformity, reporting Overspray or Run-off that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with Application Rate, soil types, Plant Factors, slope, exposure and any other factors necessary for accurate reprogramming.

- B. All ~~h~~landscape Irrigation Audits shall be conducted by a third party Certified Landscape Irrigation Auditor. Irrigation Audits shall not be conducted by the person who designed or installed the landscaping.
- C. In large projects or projects with multiple landscape installations (e.g. production home developments) an auditing rate of one (1) in seven (7) lots or approximately fifteen percent (15%) will satisfy the Irrigation Audit requirement.

#### **15.11.1050 Certificate of Completion**

- A. A Certificate of Completion shall be submitted to the Director prior to the date that a Certificate of Occupancy is issued pursuant to the provisions of Part 6 of Chapter 24.02 of Title 24 of this Code. The form of the Certificate of Completion shall be as prescribed by the Director and shall include the following:
  - 1. A project information sheet that contains:
    - a. Date;
    - b. Project name;
    - c. Applicant name, telephone, and mailing address;
    - d. Project address and location; and
    - e. Property owner name, telephone, and mailing address.
  - 2. A certification by the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed Landscape Contractor that the Landscape Project has been installed in accordance with the submitted Landscape Documentation Package:
    - a. Where there have been significant changes made in the field during construction, these "~~a~~As-~~b~~Built" or ~~r~~Record ~~d~~Drawings shall be included with the certification;~~;~~
    - ~~b. Where recycled water is used to demonstrate water efficiency for the landscape project under Section 15.11.900, the certificate of completion shall include a verification by the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor, that the irrigation system is designed in accordance with Section 15.11.1000.~~

3. Irrigation scheduling parameters used to set the Automatic Irrigation Controller;
  4. Landscape and irrigation maintenance schedule;
  5. Irrigation Audit report;
  6. Soil management report if not submitted with Landscape Documentation Package; and
  7. Documentation verifying implementation of the recommendations contained in the soil management report.
- B. The Applicant shall:
1. Submit the signed Certificate of Completion to the Director pursuant to Section 15.11.1050.A. above; and
  2. Ensure that copies of the Certificate of Completion are submitted to the Local Water Purveyor and property owner or his or her designee.
- C. An Applicant shall be fully responsible for and subject to enforcement action for any inaccurate, incomplete or false information provided on its Certificate of Completion. It shall be a violation of this Section for any Applicant to provide any such inaccurate, incomplete or false information on its Certificate of Completion.

#### **15.11.1060 Director Determinations**

Determinations of the Director under this Chapter are final.

**SECTION 7.** Section 17.72.530 of Chapter 17.72 of Title 17 of the San José Municipal Code is amended to read as follows:

#### **17.72.530 ~~Single-f~~Family ~~d~~Dwelling ~~l~~Landscaping ~~r~~Requirements**

- A. A single-family dwelling subject to a Development Permit under Title 20 of this Code or Tract Map pursuant to Title 19 of this Code shall be landscaped in accordance with the requirements of the Development Permit or Tract Map. A single-family dwelling with new and rehabilitated landscaping subject to Chapter 15.11 of this Code shall be landscaped and maintained in accordance with the water efficiency landscaping requirements of that Chapter.

B. Subject to the paved surface limitations set forth in Section 20.30.440 of this Code and Subsection C. below, all single-family dwellings not subject to a Development Permit under Title 20 of this Code or a Tract Map under Title 19 or the landscaping water efficiency requirements of Chapter 15.11 of this Code shall meet all of the following requirements:

1. The site of the single-family dwelling shall have landscaping installed in the non-paved portions of the front and side yards that are visible from any street; and
2. All roof rain leaders and down spouts shall be disconnected from the storm drain system and shall drain to splash blocks that flow to onsite landscaped areas.

For the purposes of this Subsection B. only, "landscaping" means live trees, shrubs, lawns, other live plant materials or decorative landscaping.

C. Notwithstanding the provisions of Subsection B.2. above, where the Building Official makes a determination that it is technically infeasible for a particular single-family dwelling to meet the requirements set forth in Subsection B.2. above, the Building Official may consider equivalent alternatives to those set forth in Subsection B.2. above to prevent flows of storm water to the storm drain system, so long as those equivalent alternatives are consistent with the California Regional Water Quality Control Board, San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, as amended. Such equivalent alternatives can include:

1. Direct roof runoff to a rainwater harvesting system (rain barrels or cisterns) for on-site non-potable use; or
2. Direct stormwater runoff from driveways, walkways, patios, and/or uncovered parking areas to on-site landscaped areas; or
3. Construct driveways, walkways, patios, and/or uncovered parking areas with permeable surfaces.

D. If only decorative landscaping is used to meet the requirements of this ~~s~~Section, weed block shall also be used.

E. Failure to meet the requirements of this ~~s~~Section constitutes property blight

**SECTION 8.** Section 17.72.535 of Chapter 17.72 of Title 17 of the San José Municipal Code is amended to read as follows:

### **17.72.535 Multi-Family Dwelling Landscaping Requirements**

- A. A multi-family dwelling subject to a ~~e~~D~~e~~velopment ~~p~~P~~e~~rmit shall be landscaped in accordance with the requirements of the ~~e~~D~~e~~velopment ~~p~~P~~e~~rmit. A multi-family dwelling with new and rehabilitated landscaping subject to Chapter 15.11 of this Code shall be landscaped and maintained in accordance with the water efficiency landscaping requirements of Chapter 15.11.
- B. Subject to the paved surface limitations contained in Section 20.30.440 of Title 20 of this Code, a multi-family dwelling, not subject to a ~~e~~D~~e~~velopment ~~p~~P~~e~~rmit or the requirements of Chapter 15.11 of this Code, shall have landscaping installed in the nonpaved portions of the front and side yards that are visible from any street. For purpose of this subsection only, "landscaping" means that:
1. At least fifty percent (50%) of the nonpaved portions of the front and side yards that are visible from any street shall be covered with live trees, shrubs, lawns, or other live plant materials; and
  2. The remaining portion of the nonpaved portions of the front and side yards that are visible from any street shall be covered with live trees, shrubs, lawns, or other live plant materials or shall have Decorative Landscaping installed.
- C. If Decorative Landscaping is used to meet the requirements of this Section, Weed Block shall also be used.
- D. Failure to meet the landscaping requirements of this Section constitutes property blight.

**SECTION 9.** Section 17.72.560 of Chapter 17.72 of Title 17 of the San José Municipal Code is amended to read as follows:

### **17.72.560 Parking, Storing, or Maintaining Special Mobile Equipment**

- A. No Special Mobile Equipment shall be parked, stored, or maintained in an area visible from any street for a period of time in excess of seventy-two (72) consecutive hours.
- B. The parking, storage, or maintenance of Special Mobile Equipment in a side or ~~r~~R~~e~~ar ~~y~~Y~~a~~rd shall either be:



1. In an accessory building constructed in accordance with the provisions of this Code; or
  2. In an area that provides for a five-foot (5') setback from any property line and which is not visible from any street. In addition to the setback requirement, at least one thousand five hundred (1,500) square feet, or at least sixty percent (60%) of the remaining ~~Rear~~ ~~Y~~ard area, whichever is less, must be maintained as usable outdoor recreational space or as required by Chapter 15.11.
- C. No Special Mobile Equipment shall be parked, stored, or kept within five feet (5') of any required building exit, including exit windows.

PASSED FOR PUBLICATION of title this \_\_\_\_\_ day of \_\_\_\_\_, 2022, by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

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SAM LICCARDO  
Mayor

ATTEST:

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TONI J. TABER, CMC  
City Clerk