POTABLE AND RECYCLED WATER ~~SERVICE AND USE~~SYSTEM

RULES AND REGULATIONS

CITY OF SANTA CLARA

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1. GENERAL STATEMENT AND DEFINITIONS

1.A ESTABLISHMENT OF RULES AND REGULATIONS

The following rules and regulations, rates and charges governing the Water and Recycled Water system ~~Service~~ furnished by the City of Santa Clara, California are hereby established.

1.B GENERAL STATEMENT

The City of Santa Clara Water and Sewer Utilities Department, referred to as the "Water Utility," shall furnish Water and Recycled Water Service ~~including distribution Main extensions~~ in accordance with the Municipal Services Division's Utility Services Rules and Regulations and the regulations hereinafter set forth, and in accordance with all other applicable ordinances, to any property within the corporate limits of the City and to such areas outside the City limits as the City Council may designate.

All water used must be taken through a water meter unless a P~~p~~ermit is first obtained in compliance with the regulations contained in these Rules and Regulations.

Applications for service to Premises for which a Service Connection has already been installed may be made in accordance with the ~~Municipal~~ Utility Services ~~Division~~ Rules and Regulations, which are incorporated herein by reference as though set forth in full. Such applications will signify the Customer's willingness and intention to comply with all applicable Rules and Regulations and rates duly adopted, and to make payment for Water Service rendered.

If application is made for service to property where no Service Connection has been installed, but a distribution Main is adjacent to the property, the applicant, in addition to making application for service, shall comply with the regulations governing the installation of Service Connections. Where an extension of the distribution Main is necessary or a substantial investment is required to furnish service, the applicant shall be informed by the City of the applicable provisions of the Code and these Rules and Regulations governing the extension of distribution Main and facilities.

1.C WATER USE RESTRICTIONS AND PROHIBITIONS

1. The ~~following list of~~ Water Use Restrictions and Prohibitions below are specific measures which prevent water waste and achieve reasonable, yet substantial, reductions in water use by all users in the City. The following uses of water are prohibited by the City:

(a) Wasting water, which includes but is not limited to, the flooding or R~~r~~unoff on City sidewalks, gutters, and streets.

(b) Cleaning or washing of sidewalks, driveways, patios, parking lots, or other paved or hard-surfaced areas,

(c) Washing cars, buses, boats, trailers, or any vehicle by use of a hose unless that hose is fitted with an operating automatic shut-off valve.

1. GENERAL STATEMENT AND DEFINITIONS (Continued)

(d) Water waste due to broken or defective plumbing, fire system, irrigation system, or any A~~a~~ppurtenance thereto; or to open or to leave open any stopcock or faucet so as to permit water waste.~~,~~

(e) Service of water by any restaurant unless requested by a patron.~~,~~

(f) Installation of a single-pass cooling system.~~,~~

(g) Installation and/or use of a non-recirculating, decorative fountain.~~,~~

(h) Construction of a non-recirculating conveyor car wash.~~,~~

~~(i)~~(i) Overhead Spray Irrigation using Sprinkler Heads, Spray Heads and/or rotors between the hours of 9 a.m. and 6 p.m.,

~~(i)~~(j) Watering lawns during or within 48 hours of measurable precipitation,

~~(j)~~(k) Irrigating ~~ornamental~~Non-Functional Turf (Decorative Grass) on public street Medians

(l) Applying Potable Water to Non-Functional Turf at commercial, industrial or institutional (CII) sites, including common areas of homeowners' associations (HOAs),

~~(k)~~(m) Irrigation of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by California Building Standards Commission and the Department of Housing and Community Development,

(n) Street cleaning or construction site preparation, if Recycled Water is available.

~~(l) Irrigation between the hours of 9AM and 6PM~~

2. To further prevent the waste of Potable Water, the installation of Non-Functional Turf is prohibited in new and existing Non-Residential Landscape Projects and multifamily Landscape Projects.

(a) The use of Potable Water is not prohibited to the extent necessary to ensure the health of trees and other perennial non-Turf plantings or to the extent necessary to address immediate health and safety, sanitation, or fire protection needs as determined by the fire marshal. Unless otherwise permitted by the fire marshal, the watering permitted under this section 1.C.2(a) must be completed in a manner that prevents Runoff.

3. In addition to the above water use prohibitions and to promote efficient water use, hotels/motels shall provide guests with the option of choosing not to have towels and linens laundered daily. Notice of this option shall be displayed prominently in each guestroom using easily understood terms and language.

1. GENERAL STATEMENT AND DEFINITIONS (Continued)

1.D INCORPORATION OF MUNICIPAL SERVICES DIVISION UTILITY SERVICES RULES AND REGULATIONS

These Rules and Regulations hereby incorporate by reference all Rules and Regulations of the Municipal Services Division of the Department of Finance, hereinafter referred to as "Utility Services Rules and Regulations," of the City of Santa Clara. Rules governing the establishment of credit, rendering and payment of bills, financial aspects of temporary service or discontinuance of service for water are contained in the ~~Municipal~~ Utility Services ~~Division~~ Rules and Regulations.

1.E INCORPORATION OF WATER SUPPLY MASTER PLAN AND MANAGEMENT PLAN

These Rules and Regulations hereby incorporate by reference the Water Supply Master Plan and the Urban Water Management Plan adopted by the Water and Sewer Utilities Department, collectively the "Master Plans." All Developments and construction shall conform with the requirements of such Master Plans in effect at the time of construction.

1.F INCORPORATION OF TITLE 17 AND TITLE 22

These Rules and Regulations hereby incorporate by reference all applicable regulations of the State of California Division of Drinking Water (DDW) of the State Water Resources Control Board including Title 17 and Title 22 and all successor regulations. In the event of any disagreement between the City's Rules and Regulations and DDW regulations, the most conservative requirement between them shall apply.

1.G INCORPORATION OF AWWA STANDARDS

These Rules and Regulations hereby incorporate by reference all American Water Works Association (AWWA) Standards in effect at the time of Permit approval. In the event of any disagreement between the City's Rules and Regulations and the AWWA Standards, the most conservative requirement between them shall apply.

1.H INCORPORATION OF STANDARD DETAILS AND SPECIFICATIONS

These Rules and Regulations hereby incorporate by reference all Water Standards, henceforth "Standards," adopted by the Water and Sewer Utilities Department which include the Water and Sewer Utilities Standard Drawings and Specifications, the Public Works Standards Details, the Public Works Standards Specifications, and the Public Works Design Criteria. All water infrastructure materials and construction methods shall conform with the requirements of such Standards in effect at ~~and~~the time of building Permit issuance.

~~I.E~~1.I DEFINITIONS

Terms appearing with an initial letter capitalized~~,~~ are defined terms. The definitions set forth in the Utility Services Rules and Regulations for the Municipal Services Division, Department of Finance, are incorporated by reference as set forth in full, and those definitions are not repeated here; reference should be made to Section 1.B of ~~Municipal~~ Utility Services ~~Division~~ Rules and Regulations. Unless the particular provision or context otherwise requires, the definitions and provisions contained in the Water ~~Service~~ and Recycled Water system ~~Use~~ Rules and Regulations Sections 1.~~E~~I and 20.B and the ~~Municipal~~ Utility Services ~~Division Rules and~~ Regulations Section 1.B, shall govern the construction, meaning, and application of words and terms used in these Rules and Regulations. The singular of a word or term shall include the plural and the plural shall include the singular. Such words or terms as defined in these Rules and Regulations Section 1.~~B~~ I and 20.B shall be initially capitalized when used in context of these Rules and Regulations.

Appurtenances: Assets associated with the water distribution system that are additional to the pipe assets themselves such as valves, meters, Backflow preventers, meter boxes, joints, tees, elbows, etc.

Auxiliary Water: A water supply on or available to the Premises from a source other than the City's Potable Water supply. This may include water from another Local Water Purveyor, a natural source such as a well or stream, or water that may originate in the City's Potable Water supply, but passes through an Appurtenance such as a fire hydrant, Backflow device, fire department connection, etc., or is stored on the site such as a private pipe network or a tank.

Backflow: The reverse flow of water or any other fluid or substance or any combination or mixture thereof from the Customer's system into the City's water distribution system.

Backflow Prevention Device: A City-approved device that prevents Backflow into the City's water distribution system. The types of Backflow devices accepted by the City include:

- **Reduced Pressure Principle Backflow Prevention Assembly (RP):** A device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shutoff valves, and equipped with necessary Appurtenances for testing. The device shall operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water supply side of the device.
- **Reduced Pressure Principle Detector Backflow Prevention Assembly (RPDA):** A device that includes a bypass containing a City specific water meter and an approved reduced-pressure principle B~~b~~ackflow P~~p~~revention D~~d~~evice. The City meter shall register accurately for only very low Flow Rates, up to three gallons per minute, and shall show a registration for all rates of flow.
- **Double Check Detector Assembly (DCDA):** A device composed of a line-size double check valve device with a bypass containing a specific water meter and an approved double check valve device.

Best Management Practice~~("BMP")~~: A policy, program, practice or rule aimed at more efficient use or conservation of the water resources of the City and State.

1. GENERAL STATEMENT AND DEFINITIONS (Continued)

City: The City of Santa Clara, California, acting through its elected officials or its duly authorized officers, employees, agents, or fictitious business names.

City Code: The Code of the City of Santa Clara, California.

City Equipment: Any property, facility, apparatus, or material associated with providing one or more u~~U~~tility s~~S~~ervices including, but not limited to, City's electric distributions system, water distribution system, pipes, ducts, conduits, valves, meters, B~~b~~ackflow P~~p~~revention D~~d~~evices, transformers, protective devices, wiring, switches, meters and other A~~a~~ppurtenances required to provide a u~~U~~tility s~~S~~ervice to Customer's Premises.

City Employee: Any authorized City E~~e~~mployee, agent or representative.

City's Operating Convenience: The utilization of facilities or practices which contribute to the overall efficiency, safety or reliability of the W~~w~~ater U~~u~~tility operations. City's Operating Convenience does not refer to Customer convenience or adoption of practices required to comply with applicable ordinances, rules and regulations, or similar requirements of public authorities.

City's Water System: The water supply and distribution system and all A~~a~~ppurtenances thereto owned and operated by the City, including all Service Connections to the City's water M~~m~~ains.

Commercial Service: Provision of water to Premises where the Customer is engaged in trade.

Cross-Connection: ~~Cross-connection means a~~An unprotected actual or potential physical connection between any part of a ~~potable~~ water system used or intended to supply water for drinking purposes and any source or system containing unapproved water or ~~a~~ substance that is not or cannot be approved as safe, wholesome, and potable for human consumption. Direct piping between the two systems, ~~B~~bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which Backflow could occur~~, shall be considered to be~~ are C~~c~~ross-C~~c~~onnections and are prohibited, regardless of the presence of valves, Backflow Prevention Devices or other Appurtenances.

Customer: The Person, Persons, firm, association, governmental agency, corporation or other legal entity who use, are entitled to use, or benefit from the use of City of Santa Clara Utilities.

Development: The subdivision, construction or improvement of ~~a~~ Premises that requires an application for an Entitlement or Permit from the City. This shall include new construction, remodeling of existing buildings, and tenant improvements.

~~**Domestic Service:** Water Services to single or multiple dwelling Premises for use by residents and residential associations, including water for irrigation and other similar and customary purposes.~~

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Dual Plumb: A system of plumbing installations used to supply both Potable and Recycled Water to a home or business. Under this system, two completely separate water piping systems are used to deliver water to the fixture.

Entitlement: The approval of a City of Santa Clara planning application.

~~**Fire Service - Private:** Provision of water to Premises for automatic fire sprinkler service connections.~~

Fire Service ~~- Public~~: ~~Public f~~Fire protection service through fire hydrants connected to the water distribution system and made available to the City Fire Department. Private Fire Service is the provision of water to Premises for Fire Service Connections.

Flow Rate: The rate at which water flows through the pipes, valves and emission devices. (gallons per minute, cubic feet per second, gallons per hour).

Graywater: 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. Health and Safety Code Section 17922.12.

Industrial Service: Provision of water to Premises for use in manufacturing or processing activities.

Infiltration Rate: The rate at which soil accepts water as applied, expressed in inches per hour.

~~P~~

Landscape Project: An undertaking of landscape design and installation on a particular area of land. A Landscape Project may be associated with an individual lot, a building project, or a multi-phased Development. It may also be a larger, comprehensive landscape scheme that is not coupled with an individual building project.

Local Water Purveyor: Any entity, including a public agency, city, county, or private water company that provides retail Water Service.

Main Extensions: Extension of distribution pipelines including all necessary Appurtenances, exclusive of Service Connections, beyond existing facilities.

Mains: Distribution pipelines, which are used to service the general public, and are located in streets, highways, public rights of way or easements through private lands.

Median: Area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

Meter Rate Service: Provision of water in measured quantities through metered service.

Non-Potable Water: Water that has not been treated for human consumption in conformance with the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, or any other applicable Standards.

Non-Residential Landscape: 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 and multifamily homes where landscaping is managed by a homeowners' association or other common interest Development.

Overhead Spray Irrigation/Devices: Devices that deliver water through the air (e.g., Spray Heads and rotors).

~~**Municipal Or Public Use:** Provision of water to municipal departments or for other public uses.~~

Owner: Property or building Owner and authorized agents.

Permit: Any Permit issued by the City of Santa Clara Building Department, Fire Department, ~~or~~ Department of Public Works, or ~~Department of~~ Water and Sewer Utilities Department.

Potable Water: That water that is pure and wholesome, does not endanger the lives or health of human beings, and conforms to the latest edition of the California Safe Drinking Water Act, or other applicable Standards.

Premises: Any building, lot, parcel, real estate, land, or portion of land, whether improved or unimproved, occupied or unoccupied, including adjacent streets, sidewalks, pathways, parking strips, all structures, equipment or portions thereof occupied or operated by a Customer or tenants of a Customer and situated on an integral parcel of land undivided by a public highway, street or railway to which one or more utility services is or could be provided.

Public Use: Provision of water for Public Uses.

Recycled Water: Non-Potable, tertiary-treated water in compliance with the California Code of Regulations (CCR), Title 22, Division 4, Environmental Health Water Recycling Criteria and used for approved purposes ~~other than drinking water~~.

Regulatory Agencies: Those public agencies legally constituted to protect the public health and water quality, such as the State DDW, the State RWQCB and the County EHS.

Runoff: Potable or Recycled Water that is not absorbed by the soil or landscape to which it is applied and flows outside the approved irrigation a~~a~~rea. Runoff may result from water that is applied at too great a rate (application rate exceeds I~~i~~nfiltration R~~r~~ate) or when there is a ~~severe~~ slope.

Separate Service Connection: A Service Connection used for a single land use and water use.

Service Connection: The connection of City of Santa Clara water, Recycled Water or sewer ~~or electric~~ equipment to Customer equipment for the purpose of providing u~~U~~tility s~~S~~ervices. This includes, but is not limited to, all or any portion of the water pipe and A~~a~~ppurtenances, including the meter, between the City distribution line and an individual Customer's system. ~~All or any portion of the water pipe and Aappurtenances, including meter, between the City distribution line and an individual Customer's system.~~

Service Order: Customer request for the connection or discontinuance of Water Service.

Sprinkler Head or Spray Head: A device that delivers water through a nozzle.

Standards: The Standard Details, Standard Specifications, and Design Criteria adopted by the City of Santa Clara and in effect at the time of building Permit issuance.

Submeter: A secondary device beyond a meter that measures water consumption of individual units or buildings within Premises that have multiple units or buildings.

Swimming Pool: A~~ny structure~~ Water Feature intended for swimming, recreational bathing or wading that contains water over 24 inches (~~610 mm~~24") deep. This includes in-ground, above ground, and on-ground pools; hot tubs; spas and fixed-in-place wading pools.

Tamper: To rearrange, bypass, damage, alter, interfere with, break, prevent normal function of equipment in any way, prevent access to equipment, or hinder a City Employee in the performance of their duties.

Temporary Water Service: Service for an enterprise or activity which is temporary in character, where it is known in advance that service will be of limited duration, or the permanency of which has not been established.

1. GENERAL STATEMENT AND DEFINITIONS (Continued)

Total Cost: The sum of all fully located expenses including overheads, all labor, material and use of City Equipment to complete a particular repair or addition to the system, and the cost of associated resources consumed.

Turf: A ground-cover surface of non-native, ornamental grass or a groundcover surface of mowed grass. Cool season grasses may include ~~Some examples of turf include a~~Aannnual bluegrass, Kentucky bluegrass, p~~P~~Perennial ryegrass, Red ~~fescue~~Fescue, and Tall ~~fescue~~ Fescue~~are cool-season grasses~~. Warm season grasses may include Bermuda grass, K~~k~~ikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass~~ are warm season grasses~~.

- **Functional Turf:** Turf located in a recreational use area or community space, including sports fields and Turf used regularly for human recreational purposes or community events. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not Functional Turf.
- **Non-Functional Turf (Decorative Grass):** Turf that is solely ornamental and does not serve a community or neighborhood function, including use for recreational purposes or civic or community events.

Utility Connection Point: Point of delivery determined by the City Water Department.

Utility Services Rules and Regulations: The rules and regulations of the Municipal Services Division of the City of Santa Clara Department of Finance.

Water Feature: A design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and S~~S~~wimming P~~P~~ools (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 onsite 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 for landscapes.

Water Service: Provision of either Potable or Recycled ~~w~~Water~~, either potable or recycled,~~ to a Customer's property or Premises through a metered Service Connection.

Water Utility: The City of Santa Clara Water and Sewer Utilities Department. The Water Utility and the City are one and the same.

2. NOTICES

2.A NOTICES TO THE CUSTOMER

Notice, under and pursuant to the effective Rules and Regulations of the City, from the City to a Customer may be given by written notice, either delivered by the City or properly enclosed in a sealed envelope and deposited in any United States Post Office postage prepaid, addressed to the Customer's last known address.

2.B NOTICES TO THE CITY

Requests for P~~p~~ermits or licenses pursuant to the effective Rules and Regulations of the City and notices from any Water Service Customer to the City regarding a relocation of Water Service, an increase in size of Water Service, or any material change either in the amount or ~~character~~ type of appliances or equipment installed upon the Premises ~~may~~ shall be presented by the Customer or authorized agents through completion of an appropriate application prior to any modification to the existing Water Service Connections or change in water use. The request shall be made, in person, or sent by postal mail or email to the following addresses, respectively:

City of Santa Clara
Water and Sewer Utilities
1500 Warburton Ave.
Santa Clara, CA 95050

Email: Water@SantaClaraCA.gov

~~CONTRACTS~~

~~3.A Contracts will not be required as a condition prior to Water Service except:~~

~~3.A.1 As conditions in the regular schedule of rates approved or accepted by the City;~~

~~3.A.2 As may be required for water extensions for Temporary Water Service or speculative projects;~~

~~3.A.3 As may be required for construction purposes as a condition prior to Water Service;~~

~~3.A.4 Any Customer Application for Water Service which in the judgment of the City is not a standard practice;~~

~~3.A.5 A contract may be required for special operating conditions or other circumstances as may be required for the City's Operating Convenience.~~

~~4.~~ 3. APPLICATION FOR WATER SERVICE

3.A SERVICE ORDER APPLICATIONS

Application is required by the Municipal Services Division Office for ~~each~~ any~~of the~~ Premises on which one or more utility services are~~is~~ to be provided when Water Service is desired. By applying for any Water Service, an ~~A~~applicant indicates their willingness and intention to comply with ~~these~~ all applicable Rules and Regulations, and to make payment for such utility services when due and in accordance with applicable rates. Application for Water Service does not in itself bind the City to serve any applicant except under reasonable conditions as determined by the City, nor does it bind the applicant to take Water Service for a longer period than the minimum requirements of the appropriate rate schedule(s).

Applications for residential, C~~c~~ommercial, Institutional and I~~i~~ndustrial S~~s~~ervice (CII) will be accepted online, by telephone or in person at the Municipal Services Division.

For new Service Connections, no meter shall be installed prior to the submittal of a utility services application. The Director of Water and Sewer Utilities may require the separation or modification of any Service Connection in order to comply with these Rules and Regulations or to facilitate the maintenance and operation of the public system.

3.B CHANGES IN WATER SERVICE

When a Customer intends to make any material change either in the amount or ~~character~~ type of the equipment installed upon the Premises to be supplied with water by the City, the Customer shall immediately provide written notice to the City Water Utility. Failure to comply may result in a discontinuance of Water Service without notice.

Customer will be liable for damages to City Equipment and facilities resulting from the Customer's failure to provide written notification to, and approval of, the City Water Utility prior to the addition of water demand.

Customer may be subject to reassessment of rate schedule qualification as provided by these Rules and Regulations.

3.C DISCONTINUANCE OF WATER SERVICE

Only authorized City Employees are allowed to disconnect the Service Connection from City Systems. A Customer desiring termination of one or more utility Service Connections must give the Municipal Services Division ~~Water Utility~~not less than two~~en~~ (2~~0~~) working days' notice and state the date on which the termination is to become effective. The Customer will be responsible for all charges associated with all utility Service Connections furnished at the Premises until such time as that utility Service Connection has been discontinued. The City may discontinue Water Service for any one or more of the reasons identified in the Utility Services Rules and Regulations, in compliance with the Water Shutoff Protection Act, Health and Safety Code Sections 116900 et. seq. related to residential customer water shutoffs for non-payment.

Commented [GW3]: Reviewing the existing Municipal Service Ordinance: indicates not less than two (2) working days notice

Only authorized City Employees are allowed to Disconnect the Service Connection from City Systems. A Customer desiring termination of one or more Utility Services must give Municipal Services Division not less than two (2) working days notice and state the date on which the termination is to become effective. The Customer will be responsible for all charges associated with all Utility Services furnished at the Premises until such time as that Utility Service has been Discontinued.

~~5~~4. RATES

~~5.A~~4.A RATES

The rates to be charged by and paid to the City for Water Service shall be the rates legally in effect and on file with the City Clerk, where they shall be available for public inspection.

~~5.B~~4.B TEMPORARY RATE SCHEDULE

An a~~A~~pplicant for Water Service may be assigned a temporary rate schedule until qualification parameters for a customary rate schedule are met. The qualification period shall not exceed twelve (12) months and any change in rate schedule due to new Water Service qualification will apply retroactive to the date of qualification under applicable rate schedule then in effect. The selection of the temporary rate shall be made by the Municipal Services Division and based on historical usage for the Premises, historical usage of the Customer, (an estimate if historical usage is not available), or as provided for by these Rules and Regulations.

~~5.C~~4.C ESTABLISHMENT OF NEW OR OPTIONAL RATES

If the City adopts new or optional schedules or rates, the City shall take ~~reasonable~~ such measures as may be reasonable to advise those of its Customers who may be affected by the change.

In the case where the City adopts new rate schedules~~,~~ which allow~~s~~ a Customer to qualify for more than one rate or schedule, the Customer may request which applicable rate or schedule is desired. Upon request, the Municipal Services Division shall assist the Customer to select the most appropriate rate or schedule, or in the absence of a request, the Municipal Services Division shall have the authority to make the selection based on the available information.

~~5.D~~4.D REASSESSMENT OF RATE SCHEDULE QUALIFICATION

A Customer may request a reassessment of their qualification for a particular rate schedule. A change to a different applicable schedule, as approved by the Municipal Services Division, shall become effective for service rendered after the next regular meter reading following the date of approval by the City. The effective date may be delayed if a change in Water Service hardware, water meter or other associated equipment is required. Notices shall be served as indicated in Water and Recycled Water system~~Service and Use~~ Rules and Regulations Section 2 herein.

~~5.E~~4.E SERVICE BY FACILITIES PURCHASED FROM OTHER UTILITIES

Where the City has purchased Water Service facilities from other water utilities, the Customer shall be placed on the applicable City rate schedule.

~~5~~6. METER TEST AND ADJUSTMENT OF BILLS FOR METER ERROR

~~6.A~~5.A METER TEST

Each meter will be tested at regular intervals which shall be determined by the Water Utility. ~~In no case shall the interval between tests exceed 20 years~~

~~6.B~~5.B METER TEST - CUSTOMER REQUEST

1. Any Customer may, after giving not less than one (1) week's notice, request the City to test the meter serving ~~his/her~~their Premises.
2. Except as provided herein, the City may require from the Customer a fee to cover the cost of the test.
3. The fee will be refunded to the Customer if the meter is found, upon test, to register more than two (2%) percent fast under conditions of normal operation. The deposit will be retained by the City to cover test costs if the meter is less than two (2%) percent fast. The Customer will be notified, not less than five (5) days in advance of the time and place of the test.
4. A Customer shall have the right to require the City to conduct the test in ~~his~~ their presence, or in the presence of ~~his~~ their representative. A written report giving the results of the test will be supplied to the Customer within ten (10) days after completion of the test.

~~6.C~~5.C ADJUSTMENT OF BILLS FOR METER ERROR

1. **Fast Meters**: When, as a result of any test, a meter is found to be registering more than two (2%) percent fast~~,~~ under conditions of normal operation, the City will make necessary adjustments to the Customer's bill (credit or charge) to correct the overcharge ~~based on corrected meter readings (0% greater than actual consumption) for the period in which the meter was in use~~ in accordance with ~~Municipal Services Division~~the ~~Utility~~ Services Rules and Regulations Section 6.H.3.
2. **Slow Meters**: ~~6.C.2.(a) Upon testing, if a meter under normal conditions is found to register less than ninety-eight percent (98%) of the actual consumption, Municipal Services Division may bill the Customer for the undercharge based on the corrected meter readings (100% actual consumption) for the period in which the meter was in use in accordance with Municipal Services Division~~the Utility Services Rules and Regulations Section 6.H.3.~~6.C.2.(b) Upon testing, a meter used for other than domestic service is found to register less than ninety-eight percent (98%) of the actual consumption, Municipal Services Division may bill the Customer for the undercharge based upon the corrected meter readings (100% actual consumption) for the period in which the meter was in use in accordance with Municipal Services Division Rules and Regulations Section 6.H~~

3. Non-Registering Meters: Municipal Services Division may bill the Customer for water consumed while the meter was not registering. At Municipal Services Division's option, the bill will be computed on an estimate of consumption based on the Customer's use during the same season of the preceding year or based on an alternate method of estimation determined by Municipal Services Division, which includes, but is not limited to, the City's experience with Customer's' usage on the same rate schedule; and the general characteristics of the Customer's operations.

6~~7~~. APPEAL FROM THE APPLICATION, REQUIREMENTS, OR INTERPRETATION OF THESE RULES AND REGULATIONS

~~7.A~~6.A REQUEST FOR APPEAL

Unless California law, this Code, or an ordinance or resolution of the City prescribes an alternative procedure, any Customer may request an appeal from an interpretation, requirement or application of the Rules and Regulations. The appeal may be made by submitting a written Request for Appeal to the Director of Water and Sewer Utilities. Upon receipt of a Request for Appeal, the Director shall review the request and notify the appellant in writing of ~~his/her~~their decision within forty-five (45) days of the request. Appeal from the application, requirements or interpretation of the ~~Municipal~~ Utility Services ~~Division~~ Rules and Regulations shall be made in accordance with those Rules and Regulations.

~~7.B~~6.B SUBSEQUENT APPEAL

A Customer may further appeal the Director's determination regarding the appeal from the application, requirements, and/or interpretation of these Rules and Regulations to the City Manager. Such a subsequent appeal must be made in writing and received by the City Clerk within seven (7) calendar days after receipt of the written decision by the Director.

~~7.C~~6.C APPEAL COMPONENTS

The appeal to the City Manager shall consist of a written notice of the appeal, written details explaining the grounds on which the appeal is based, and the payment of an appeal fee ~~of twenty-five dollars ($25.00) or an amount otherwise modified or~~ set ~~from time to time~~ by resolution of the City Council.

~~7.D~~6.D APPEAL TIMEFRAME

The appeal to the City Manager shall be heard within forty-five (45) days from the filing of said notice. If an address is not provided in the notice of appeal, such notice need not be given to the Customer.

~~7.E~~6.E HEARING NOTICE

Written notice of such hearing informing the appellant of the date and time of the hearing shall be personally served upon the appellant, or on any person employed in the place where the business in question, or activity, is maintained. If service cannot be made in the foregoing manner, then a copy of such notice may be mailed to the appellant at ~~his or her~~their place of business or ~~his or her~~their last address known to the City Clerk, at least five (5) days prior to the hearing. The time of such notice may be shortened by the City Manager with the written consent of the appellant.

~~7.F~~6.F HEARING

At the hearing, an opportunity will be afforded to the appellant and the City to make statements for the record regarding the facts in dispute and the circumstances surrounding the matter being appealed. A record of the hearing will be established.

6. APPEAL FROM THE APPLICATION, REQUIREMENTS, OR INTERPRETATION OF THESE RULES AND REGULATIONS (continued)

~~7.G~~6.GAPPEAL DECISION

The City Manager shall render ~~his/her~~their decision within forty-five (45) days after the conclusion of said hearing. In ~~his/her~~their decision, the City Manager may reverse, set aside, affirm, amend or modify the decision of the Director. The decision of the City Manager shall be final insofar as the administrative hearing process is concerned.

7. NEW DEVELOPMENT

7.A WATER SUPPLY ASSESSMENTS

New Developments may be required to complete a Water Supply Assessment (WSA) as mandated by the State Water Code and pay for any applicable fees. All Development projects shall submit a WSA form to determine the project's demands and whether a WSA will be required unless otherwise waived by the City.

7.B DEVELOPMENT IMPACT ANALYSIS

All Developments shall request a Development Impact Analysis (DIA) from the City to determine the available fire flow capacity and residual pressure for public hydrants and o~~O~~nsite private fire system connections (unless waived by the Director of Water and Sewer Utilities) and pay any applicable fees. If the existing City system cannot supply the Development with the required fire flow, the Developer shall install the required infrastructure needed to supply the required fire flow at the Developer's expense.

7.C PUBLIC WATER MAINS

All new public water Mains shall be located within the paved areas of public streets and shall meet all City and State separation requirements. Onsite water Mains will not be accepted by the City, nor will easements be granted unless otherwise allowed by the Director. All existing onsite public water Mains shall be converted to a private system and all services shall be reconnected to the public system unless otherwise allowed by the Director.

7.D MAXIMIZING RECYCLED WATER USE

All Developments including multifamily and non-residential buildings shall use Recycled Water for all Non-Potable, permitted uses including, but not limited to, irrigation, Dual Plumbing, cooling, and any other commercial, industrial or institutional use as permitted. Recycled Water shall be used for all construction activities for Developments.

7.E RECYLCED WATER CONVERSION

All Developments that are required to use Recycled Water shall convert any existing non-domestic water use that is eligible for Recycled Water into an approved Onsite Recycled Water system at the Developer's expense.

7.F RECYCLED WATER READY

Where Recycled Water is not available, as determined by the Director, the project shall be designed to receive Recycled Water in the future. All onsite plumbing for non-domestic water uses (irrigation, industrial processes, cooling, etc.) shall be designed for Recycled Water use and shall comply with all Recycled Water regulations.

7. NEW DEVELOPMENT (continued)

7.G ~~GREY WATER~~GRAYWATER READY~~———~~

When a Development chooses to use a Graywater dual drainage laundry plumbing system, ~~A~~alternative plumbing piping ~~is~~shall be installed to permit the discharge from the clothes washer or other fixtures to be used for an irrigation system in compliance with the California Plumbing Code.

7.H MAIN EXTENSIONS AND UPSIZING REQUIRED FOR FIRE DEMAND USE

Applicants, subdividers or property Developers may be conditioned to extend and/or upsize a water Main in order to comply with the City's design and fire protection criteria. The size and extent of the upsize and/or extension shall be determined by the results of the DIA and shall be installed at the Developer's expense.

7.I MAIN EXTENSIONS FOR RECYCLED WATER USE

Applicants, subdividers or property Developers may be conditioned to extend a Recycled Water Main at the Developer's expense in order to comply with the City's requirement to maximize the use of Recycled Water permitted on the~~a~~ Premises. The limit of the extension shall be determined by the Director of Water and Sewer Utilities.

7.J MAIN REPLACEMENT

Main replacement for the water and Recycled Water system for new Developments shall be required where additional services are expected to accelerate the loss of integrity of the existing water or Recycled Water Main. The limits of the replacement shall extend between the nearest valves located beyond the project frontage or as required by the Director.

7.K WATER MAIN TIE-INS TO THE CITY'S WATER SYSTEM

1. Tie-ins to the City's Water System shall not be performed without the authorization of the Water Utility and under the observation of a representative from the Water Utility.
2. Contractor shall notify the Water Utility of all proposed tie-ins and shall provide a tie-in plan which includes, at a minimum, the location and sequence of all tie-in connections, the proposed sampling locations, a disinfection plan, a directional flushing plan, a shutdown plan, all City Water System valves that will be utilized, a list of all Customers that will be impacted by the tie-in plan along with supporting exhibits and an implementation schedule prior to the initiation of construction.
3. The tie-in plan shall reduce or eliminate the number of non-isolated tie-ins planned in favor of using isolated tie-ins to the City's Water System.
4. The City cannot guarantee a complete water shutdown; Contractor is responsible for providing adequate dewatering efforts to complete tie-in work.
5. Contractor shall be responsible for providing temporary water connections to critical services that are required to stay in service during the tie-in or where a tie-in duration will affect a critical service's normal operation.
6. All tie-ins shall be restrained in accordance with City Standards.

7. NEW DEVELOPMENT (continued)

7. Bacteriological testing will be provided by the City for all initial sampling approved by the City. It is the Contractor's responsibility to pass all bacteriological testing. Any additional disinfection, sampling, flushing, or chlorination performed by City forces or consultants, including any overtime needed, in response to a failed bacteriological test shall be charged to the Contractor. No bacteriological testing shall be performed on Thursday, Friday, Saturday or Sunday unless otherwise approved by the Director.
8. Contractor shall notify all impacted users ten (10) calendar days prior to any approved shutdown and provide the City with a sample of the notification and a summary of the outreach performed.

7.L WORK OUTSIDE OF THE CITY'S NORMAL WORK HOURS

1. The Water Utility does not ~~regularly~~ regularly work outside of normal working hours, but in rare and exceptional circumstances, the City may consider it pursuant to the following conditions.
2. Construction work for the installation of water infrastructure shall not be performed outside of normal City work hours without the written authorization of the Director. Contractor shall exhaust all options prior to requesting work outside of normal City work hours.
3. Requests for work outside of normal City work hours must be submitted to the Water Utility six (6) weeks prior to the proposed date of the work. The request shall discuss the options considered by the Contractor and the reasons why work cannot be performed within normal work hours and shall include a tie-in plan if the work will involve a shutdown of a portion of the City's Water System.
4. Contractor shall pay all applicable fees for work outside of normal work hours prior to the proposed date of work.

7.M DEVELOPMENT SHALL INSTALL BACKFLOW PREVENTION DEVICES

Unless otherwise required by Title 17 or any successor regulation, all Developments ~~,~~except single-family homes, duplexes and Accessory Dwelling Units (ADUs)~~ and remodels~~, shall install a Backflow device that meets City's current standard on every Potable Water Service Connection to the Premises.

7.N UPGRADING SERVICE CONNECTIONS TO MEET CURRENT STANDARD

Unless otherwise required by Title 17 or any successor regulation, all Developments except single-family home remodels, with existing Backflow Prevention Devices which do not meet the City's current Standard or, in the opinion of the Director, do not provide adequate protection from Backflow, shall be upgraded at the Developer's expense. Upgrading may include complete replacement and relocation of the Backflow Prevention Device and meter assembly, installation of additional devices and /or correction of any onsite Cross-Connection hazards. All upgrades to Fire Service Connections shall require the approval of the City Fire Department prior to installation.

7. NEW DEVELOPMENT (continued)

7.O SEPARATE SERVICES

All Developments shall provide Separate Service Connections for each type of water and Recycled Water use, such as, but not limited to, domestic, fire, irrigation, Dual Plumbing, cooling, industrial water use, and for each type of land use such as, but not limited to, residential, commercial, industrial use on the Premises, each separately metered and tapped at the water Main. Multiple water uses shall not be served by a single Service Connection. All services shall be metered separately.

7.P MINIMUM SERVICE SIZE FOR SINGLE-FAMILY HOMES

The minimum meter and service size for a new single-family home, remodel or ADU with a fire sprinkler shall be a one-inch (1") meter and Service Connection.

7.Q SUBMETERING

All Developments shall comply with the Submetering requirements of the California Water Code, Health and Safety Code and Building Code. All requests for exemptions shall be submitted to the City's Building Official.

7.R PRIVATE WELLS

1. It shall be the responsibility of the Owner/Developer to disclose the existence of all water wells on the property to be developed. The locations of all existing wells shall be shown on all site plans and included with Permit applications to the City for any onsite modifications or construction.
2. All Developments with existing private wells shall be assessed for Cross-Connection hazard and may be required to be removed if deemed a "high hazard" by the City.
3. Developments that are required to remove existing wells shall destroy all existing wells in accordance with all applicable regulations prior to connection to the City's Water System whether expressly stated or not.
4. The well or wells shall be sealed in accordance with the Standards promulgated by Santa Clara Valley Water District. A copy of the Destruction Permit issued by the District, indicating that the well or wells have been properly sealed, shall be submitted to the City as evidence thereof.

7.S DEVELOPMENT REVIEW

~~8.A.1.~~Prior to submitting any projects for Water Service, the Developer shall submit a site plan showing all existing utilities, trees, structures and easements to the Water Utility. Developer shall then contact the City ~~City Electric Department and~~ Water Utility for requirements and prepare the site plan resolving coordination of all utilities. Charges for new Service Connections are payable in advance and shall be in accordance with the applicable sections of the City Code.

~~8.A.2 Most Water Service Connections will normally be furnished and installed by City between the street curb and the property line.~~

7. NEW DEVELOPMENT (continued)

~~8.A.3 Subject to approval of the Director of Water and Sewer Utilities, and providing there is no depressed grade condition planned or existing on the Premises, water needs may be served by an on-site water distribution system and individual meters installed (either by City or Developer) and maintained by City in an easement (minimum width 15 feet) granted for that purpose. Developer must contact the Water Utility for the water infrastructure design criteria prior to designing the on-site utilities.~~

7.T UTILITY CLEARANCES

The Developer shall maintain a minimum of one foot (1') of vertical clearance measured from outside diameter to outside diameter at all Water Service crossings with other utilities, and the following required minimum horizontal clearances, measured from outside diameter to outside diameter of edge, from Water Services:

(a) ten feet (10') from sanitary sewer utilities,

(b) ten feet (10') from Recycled Water utilities,

(c) eight feet (8') from storm drain utilities,

(d) five feet (5') from fire and other water utilities,

(e) three feet (3') from abandoned Water Services,

(f) five feet (5') from gas and electric utilities,

(g) seven feet (7') from high pressure gas mains,

(h) five feet (5') from the edge of the proposed or existing driveway, and

(i) five feet (5') from structures, poles and fountains.

~~8.A.4~~ All trees, existing and proposed, shall maintain a minimum clearance of ~~10~~ ten feet (10') from any existing or proposed w~~W~~ater facilities. If tree root barriers are used, clearance from trees reduces to five feet (5') measured from the edge of the tree root barrier to the edge of water facilities. Existing trees that conflict ~~will have to~~shall be removed. Trees shall not be planted in water easements or public utility easements.

No structures (fencing, foundation, etc.) or treatment facilities (biofiltration swales, etc.) shall be placed over utilities and utility easements.

7.U ~~8.B~~ RELOCATION OF EXISTING FACILITIES

No existing City facility shall be relocated prior to the authorization of the City and the cost of the relocation shall be paid for by the Developer~~ment~~.

7.V ~~8.C~~ RIGHTS OF WAY

Water easements shall be provided by Customer for all City W~~w~~ater U~~u~~tility facilities located outside of the public right of way. City will determine the location of easements and prepare document(s) at C~~c~~ustomer's expense, for Customer's signature, unless easements are dedicated on a Tract or Parcel map. The City is not obligated to accept an easement or any public improvement installed within an easement on private property.

7. NEW DEVELOPMENT (continued)

7.W OBLIGATION TO PROTECT EXISTING PUBLIC UTILITIES

Any Contractor performing any work within the public right of way or within 10 feet of an existing public water or Recycled Water Main, service, Appurtenance or facility shall be responsible to locate the facility and protect it in place prior to construction activity.

Contractor shall not proceed with any construction activity within a public right of way or easement that includes an existing public water or Recycled Water Main, service, Appurtenance or facility prior to receiving approval from the Water Utility.

If any existing public utility Main, service, Appurtenance or facility is damaged as a result of the Contractor's activity, Contractor shall be responsible for the repair and/or replacement of the damaged utility infrastructure and all associated costs including, but not limited to, bypass improvements, shutdowns, monitoring, mitigations for discharges into the storm or sewer system, overtime charges, traffic control, Permitting, inspection and reporting to R~~r~~egulatory Agencies.

7.X DEMOLITION PERMITS

Contractor and Owner shall disconnect all existing Water Services prior to issuance of onsite construction Permits and commencement of onsite demolition work. Demolition work shall not commence without prior verification that utility services have been disconnected.

7.Y NEW SERVICE APPLICATIONS

1. Contractor Owner shall submit new Water Service applications to the Water Utility for all Service Connections prior to the issuance of any encroachment Permit which will install or modify a Water Service Connection. New meters will not be released or installed if a complete Customer account is not on file with the City at the time of meter installation.
2. Contractor or Owner shall be billed for all water usage generated from the date of meter installation.

~~Z~~

7.Z RECORD DRAWINGS

Record Drawings shall be prepared to show all utility improvements as constructed and shall include all changes in work constituting departures from the City approved design drawings. Record Drawings shall be submitted to the City for review and approval prior to building occupancy. A GIS-compatible file shall be submitted with the Record Drawings which contains geospatial data of the new improvements that can be directly incorporated into the City's GIS system.

~~8. CITY DISTRIBUTION SYSTEM ON CUSTOMER PREMISES~~ 8. AFFORDABLE HOUSING PROJECTS

~~8.A NEW DEVELOPMENTS~~

~~8.A.1. Prior to submitting any projects for Water Service, the Developer shall submit a site plan showing all existing utilities, trees, structures and easements to the Water Utility. Developer shall then contact City Electric Department and Water Utility for requirements and prepare the site plan resolving coordination of all utilities. Charges for new Service Connections are payable in advance and shall be in accordance with applicable sections of the City Code.~~

~~8.A.2 Most Water Service Connections will normally be furnished and installed by City between the street curb and the property line.~~

~~8.A.3 Subject to the approval of the Director of Water and Sewer Utilities, and providing there is no depressed grade condition planned or existing on the Premises, water needs may be served by an on-site water distribution system and individual meters installed (either by City or Developer) and maintained by City in an easement (minimum width 15 feet) granted for that purpose. Developer must contact the Water Utility for the water infrastructure design criteria prior to designing the on-site utilities.~~

~~8.A.4 All trees, existing and proposed, shall maintain a minimum clearance of 10 feet from any existing or proposed Water facilities. Existing trees that conflict will have to be removed. Trees shall not be planted in water easements or public utility easements.~~

~~8.B RELOCATION OF EXISTING FACILITIES~~

~~Any relocation of existing City facilities shall be paid for by the requesting party.~~

~~8.C RIGHTS OF WAY~~

~~Water easements shall be provided by Customer for all City water utility facilities. City will determine the location of easements and prepare document(s) at customer's expense, for Customer's signature, unless easements are dedicated on a Tract or Parcel map.~~

8.A DEFINITIONS

"Proposed Developments that include housing units affordable to lower income households" shall have the same meaning as set forth in Government Code Section 65589.7(d)(1).

8.B PRIORITY IN THE EVENT OF SERVICE LIMITS

In the event the City experiences service limitations due to constraints in water supply or in wastewater treatment and disposal capacity or regulatory restriction, the City shall grant a priority for the provision of future water and sewer service to proposed Developments that include housing units affordable to lower income households. The City shall apply the following priorities in descending order:

1. Continued service to existing connections and Customers.

2. Existing commitments contained in Development agreements.
3. Proposed Developments that include housing units affordable to lower income households.
4. New Developments on existing in-fill, developable parcels.
5. Other n~~N~~ew Developments.

8.C PROHIBITION ON DENIAL OR CONDITIONING OF SERVICE

The City shall not deny or condition the approval of an application for services to, or reduce the amount of services applied for by, a proposed Development that includes housing units affordable to lower income households unless the City makes specific written findings that the denial, condition, or reduction is necessary due to the existence of one or more of the following:

1. The City does not have "sufficient water supply," as defined in Government Code Section 66473.7(a)(2), or is operating under a water shortage emergency as defined in Water Code Section 350, or does not have sufficient water treatment or distribution capacity to serve the needs of the proposed Development, as demonstrated by a written engineering analysis and report.
2. The City is subject to a compliance order issued by the State Department of Health Services that prohibits new water connections.
3. The City does not have sufficient treatment or collection capacity, as demonstrated by a written engineering analysis and report on the condition of the treatment or collection works, to serve the needs of the proposed Development.
4. The City is under an order issued by a State Water Resources Control Board that prohibits new sewer connections.
5. An applicant has failed to agree to reasonable terms and conditions relating to the provision of service generally applicable to Development projects seeking service from the City, including, but not limited to, the requirements of local, state or federal laws and regulations or payment of a fee or charge imposed pursuant to Government Code Section 66013.

9. ACCESS, INTERFERENCE, TAMPERING, AND THEFT

9.A CITY RIGHT OF ACCESS

The City shall have immediate and unhindered access, without notice, to and from a Customer's Premises for any purpose reasonably connected with the furnishing of Water Services, including but not limited to the abatement of water waste, inspection, reading, testing, maintenance, removal, and replacement of City Equipment. The Water Utility and Municipal Services Division jointly and singly retain the authority to enforce these provisions.

When access is not immediate and unhindered, the City may issue citations with the following graduated levels: notice of denied access, warning of impending citation, citation, warning of impending civil/criminal action, or any other enforcement remedy provided for in the City Code. The City may require the Customer to provide, without cost to the City, a new approved location for equipment or to re-establish the immediate and unhindered access to the previously approved location.

9.B WORK OUTSIDE CITY'S OPERATING CONVENIENCE

When requested by the Customer, and where circumstances permit some flexibility in scheduling of necessary repairs or improvements, the City may at its sole option perform the work during other than normal City working hours for the increased convenience of the Customer, providing that the Customer acknowledges in writing, prior to the performance of said work, their willingness to pay for any costs incurred by the City as a result of performing said work at other than during normal City working hours.

9.C INTERFERENCE

Any person preventing or interfering with any City Employee in the lawful discharge of duties is subject to penalties, prosecution, and punishment.

9.D TAMPERING

To rearranging, bypassing, damaging, altering, breaking, preventing normal function of equipment in any way, or preventing access to Service Connection or other City owned facilities may be considered Tampering. It shall be unlawful for, and the City may immediately discontinue Water Service and bring a criminal action against, any person, firm, corporation or association that commits, authorizes, solicits, aids, abets or attempts to:

1. Change the intended course or path of Water Services without authorization from the City.
2. Make, or cause to be made, any connection or restoration with property owned or used by the City to provide Water Services.
3. Prevent any water meter, or other device used to determine the amount of water consumed by a Customer, from accurately performing its measuring function.
4. Tamper with, or otherwise access without permission from the City Water Utility, any property owned or used by the City to provide Water Services.
5. Use or receive Water Service without consent of the City or payment of all lawful charges.

9. ACCESS, INTERFERENCE TAMPERING AND THEFT (continued)

9.E THEFT

It is unlawful for any person to use, divert, receive or take water from the City Water System from any public fire hydrant, blow-off valve, water Main, Water Service lateral or other City facility or connection to a City facility without the authorization of the City.

~~9.E~~9.F FRAUD

The City may discontinue the Service Connection without notice if a Customer's actions or the conditions of the Premises indicate the Customer's intent to defraud the City.

~~9.F~~9.G LIABILITY, PENALTY, PROSECUTION AND PUNISHMENT FOR VIOLATION

1. Legal liability and responsibility, for violation of these Rules and Regulations, lies with the Customer of record and/or any additional recipient who benefits from the Water Service.
2. For violation of the Rules and Regulations set forth regarding interference, Tampering or theft, the City shall levy a charge set forth in the City of Santa Clara Municipal Fee Schedule, adopted by resolution of the City Council.

~~9.G~~9.H CIVIL ACTION

In any civil action brought, the City may recover three times the amount of actual damages, plus the cost of the suit, reasonable attorney's fees and any other amounts allowed by law. In addition, the City may bring an action to enjoin and restrain any violation of these Rules and Regulations.

10. TEMPORARY WATER SERVICE

Temporary W~~w~~ater S~~s~~ervice, as herein considered, refers to service of a temporary nature or of questionable permanency. The City shall, if no undue hardships result therefrom, furnish temporary service under the following conditions:

10.A TIME LIMIT

Temporary Service Connections shall be disconnected and terminated within twelve (12) months after installation unless an extension of time is granted in writing by the City. (See Chapter 13~~31~~, Article II of the City Code for rules and regulations concerning temporary service from fire hydrants.)

10.B CHARGE FOR WATER SERVED

Charges for water furnished through a T~~t~~emporary W~~w~~ater Service Connection shall be at the established rates for regular Customers.

10.C INSTALLATION CHARGE AND DEPOSITS

The applicant for temporary service will be required:

1. To pay to the City in advance the estimated cost of installing and removing all facilities necessary to furnish such service, unless other arrangements are approved by the City Council. If service is supplied through a fire hydrant and hydrant meter, the applicant will be charged in accordance with the established rate schedule in effect at the time application is made.
2. To deposit with the Municipal Services Division an amount sufficient to cover bills for water during the entire period such temporary service may be used, and as set forth in the City's Municipal Fee Schedule service deposits in effect at the time.
3. Nothing in these Rules and Regulations shall limit or affect the right of the City to collect from the Customer any other or additional sums of money which may become due and payable to the City from the Customer by reason of the Temporary Water Service furnished or to be furnished. The City may refuse Water Service if, in the judgment of the City, unsafe or hazardous conditions exist.

10.D REFUNDS

A refund of the Temporary Water Service deposit less applicable fees or charges will be applied to the Temporary Water Service closing bill. An Owner of the~~a~~ Premises, executive officer of corporation, or business, with an unpaid closing bill can transfer the outstanding balance to any existing or future accounts without regard to Customer class.

10.E TEMPORARY WATER PERMIT

1. Any person or company desiring to use water drawn from a fire hydrant for the purpose of spraying, jetting or dust control or for any other reason must first obtain a temporary water P~~p~~ermit by applying to the Water Utility. (See Section ~~17.E~~16.D.)

10. TEMPORARY WATER SERVICE (Continued)

2. It is specifically prohibited to operate the valve of any fire hydrant other than by the use of a spanner wrench designed for this purpose.
3. It is unlawful for any person, except the City's Fire Department, to take water from any City fire hydrant or any City Water facilities, without first obtaining a P~~p~~ermit and complying with the City's ~~rules and regulations for water service and use~~Potable and Recycled Water System Rules and Regulations.

11. SHORTAGE OF SUPPLY AND INTERRUPTION OF DELIVERY

11.A WATER SUPPLY

The City will exercise reasonable diligence and care to furnish and deliver a continuous and sufficient supply of Water Services to the Customer, but does not guarantee continuity or sufficiency of supply. The City will not be liable for any damage resulting from the interruption, shortage, or insufficient supply of Water Services to the Customer.

11.B TEMPORARY WATER SERVICE SUSPENSION

The City will have the right to suspend temporarily the delivery of Water Service whenever necessary to make repairs or improvements to its system. Reasonable notice, as circumstances permit, will be given to the Customers, and the repairs or improvements will be completed as rapidly as possible during normal City working hours, and where possible, with the least inconvenience to the Customers.

11.C APPORTIONMENT OF WATER SUPPLY

If a shortage of supply occurs, the City will make an apportionment of the available supply of water among Customers as ordered or directed by the City Council. In the absence of an order or direction by the City Council, the City Manager will apportion the available supply of water among Customers in a reasonable manner.

12. DESCRIPTION OF STANDARD WATER SERVICE

12.A NUMBER OF SERVICES TO SEPARATE PREMISES

Except as otherwise provided in Section 12.B below, s~~S~~eparate Premises under single control or management shall normally be supplied through ~~a single~~Separate Service Connections. The Customer may request ~~separate individual~~a single S~~s~~ervice~~s~~ Connection with a master meter, whereupon the City shall evaluate Customer's request and, at City's option, ~~may provide separate~~accept a single service~~s~~.

12.B SERVICE TO MULTIPLE UNITS

1. Separate residential houses, apartments or other multi-family accommodations, or business establishments on the same Premises or on adjoining Premises under a single control or management may be served by ~~either of~~ the following methods, ~~at the option of the City, taking into consideration the Customer's preference~~as detailed below:

   (a) Through a single metered Service Connection to the entire Premises, as provided in Rate Schedule.

   (b)~~2~~ Through separate metered Service Connections to each or any group of units, provided that the system from each service is independent and not interconnected with any others.

   (c) If a master meter is used to serve multiple residential or commercial units, then the Owner shall install Submeters to measure the quantity of water used by each unit and shall comply with all applicable State regulations.

2. For Developments other than ADUs, the City may select the methods listed above in Section 12.B.1(a) or 12.B.1(b), taking into consideration the Customer's preference.

3. ADUs constructed on lots with single-family zoning or on lots with an existing single-family dwelling shall be served by the method described in Section 12.B.1(a) above.

   (a) Notwithstanding the foregoing, ADUs shall be served by the method described in Section 12.B.1(b) if the ADU(s) is constructed at the same time as a new single-family dwelling, or in the event the property Owner requests to have Separate Service Connections.

12.C SINGLE METER SERVICE TO MULTIPLE TENANTS/UNITS

1. When separate domestic and/or C~~c~~ommercial S~~s~~ervices are served on the same Premises through a single-metered Service Connection (master meter), the Owner may resell water to tenants of the Premises at rates identical with the rates of the City that would apply if that Water Service was supplied to the individual tenants or units directly by the City, regardless of the rate the Owner is charged, provided the Owner complies with either 12.C.1(a), ~~or~~ 12.C.1(b) or 12.C.1(c). Within thirty (30) days upon written request by the City, the Owner must submit four (4) consecutive quarterly water billing summaries to the City for compliance auditing purpose.

   (a) Water is separately metered to the individual tenants or units.

12. DESCRIPTION OF STANDARD WATER SERVICE (Continued)

(b) Water is not separately metered. The Owner shall be responsible for purchase of all water used for landscape irrigation and other common area uses. The tenants shall receive separate bills for the water used by the tenants alone without any incremental charges (service or handling) billed to tenants' accounts. For residential accounts, the charge to the tenants for water shall be derived from a consistent formula for allocation that includes the number of individuals in each household (e.g., 100% occupancy or 50% occupancy and 50% square footage). For non-residential master-metered accounts, the amount allocated to each tenant shall be consistently calculated based on a formula that includes a reasonable standard for water use at each business type and square footage of each tenant's unit.

(c)

~~12.C.2~~ The charge to the tenants for such water is absorbed in the rental charges for that individual tenant or unit with no separate identifiable charge for water, and the rent does not vary with water consumption.

2.~~12.C.3~~ If water is resold otherwise than provided for above, the City may d~~D~~iscontinue service to the Owner, or furnish water directly to the individual tenants or units through separate meters installed at the sole cost of the Owner.

3.~~12.C.4~~ Under these Rules and Regulations, t~~T~~he responsibility for payment for all Water Services furnished to individual tenants or units on the same Premises ~~under these Rules and Regulations~~ and supplied through a single Service Connection shall be the obligation of the Owner. It shall further be the Owner's responsibility ~~of the Owner~~ to inform individual tenants or units of the method of metering Water Services. The City will have no contractual relationship with tenants of individual units where a Customer receives service through a single metered connection, nor a relationship created by payments made directly to the City on behalf of the Owner by tenants or other third parties.

4.~~12.C.5~~ As a condition of service for single metered service, the Owner has agreed to be governed by the applicable City Rules and Regulations. As a further condition of service for single metered service, the Owner has agreed that the City may inspect and examine the Owner's billing procedures from time to time to determine that such service is made in accordance with these Rules and Regulations, or as otherwise may be authorized by the City.

13. RESPONSIBILITY FOR EQUIPMENT AND PROTECTIVE DEVICES

13.A RESPONSIBILITY FOR EQUIPMENT

~~13.A.~~1. The Customer shall, at the Customer's risk and expense, furnish, install and keep in good and safe condition equipment and suitable housings that may be required for receiving, controlling, applying and utilizing water, regardless of the location of the meters, or other City Equipment, and the City shall not be responsible or liable for any loss or damage caused by the improper installation of such water equipment, or the negligence, want of proper care or wrongful act of the Customer or of any of the Customer's tenants, agents, employees, contractors, licensees or P~~p~~ermitt~~t~~ees in installing, maintaining, using, operating, Tampering, or interfering with such equipment. The City shall not be responsible or liable for damage to Customer's property and/or equipment, either when the water is turned on originally or when turned on after a temporary shutdown, during normal operating conditions, times of local or system trouble and/or after r~~R~~estoration.~~-~~ The City shall not be responsible or liable for damage to, or the failure of, any component of the Customer's equipment due to a defect in Customer's equipment or failure to maintain adequate protection as described in these Rules and Regulations.

~~13.A.~~2. The Customer shall exercise reasonable care to prevent City Equipment on the Customer's Premises from being Tampered or interfered with, damaged, or destroyed. The Customer shall be liable for damage to City Equipment arising from negligence, want of proper care, or wrongful act of the Customer or Customer's tenants, agents, employees or contractors. If any defect is discovered by the Customer, the Customer shall promptly notify the City.

13.B PROTECTIVE DEVICES

~~13.B.~~1. It is the Customer's responsibility to furnish, install, inspect and keep in good and safe condition at that Customer's own risk and expense, all appropriate protective devices of any kind or character, which may be required to properly protect the Customer's facilities and equipment from any event caused without negligence by the City or from any event caused by another Customer. The City is not responsible or liable for any loss or damage occasioned or caused by the negligence, or wrongful act of the Customer, or of any of that person's agents, employees or licensees in omitting, installing, maintaining, using, operating or interfering with any such protective devices.

~~13.B.~~2. It is the Customer's responsibility to select and install such protective devices as may be necessary to coordinate properly with the City's protective devices to avoid exposing other Customers to unnecessary W~~w~~ater S~~s~~ervice interruptions. Failure to provide appropriate protective devices or to properly coordinate said equipment with the City's protective devices may result in discontinuance of Water Service.

14. SERVICE CONNECTIONS AND METERS

14.A SERVICE CONNECTIONS

Water Service Connections will be installed in the size and at the location desired by the applicant where such requests are reasonable and in accordance with City Standards. Service Connections will be made only to property abutting on public streets or to such distribution Mains as may be constructed in alleys or rights-of-way at the convenience of the City. ~~Service Connections installed in the new subdivisions prior to the construction of streets or in advance of street improvements must be accepted by the applicant in the installed location.~~ Charges for new Service Connections are payable in advance and shall be in accordance with applicable sections of the Code.

14.B METERS

1. A separate Water Service Connection is required for each water use on a Customer's Premises including, but not limited to, domestic, fire, irrigation, cooling, industrial processes and other uses.
2. A separate Water Service Connection is required for each land use on a Customer's Premises including, but not limited to, residential, commercial, industrial and other uses.
3. All Service Connections shall be individually metered with the exception of Fire Service Connections.
4. The minimum meter and service size for any new service shall be a one-inch (1") meter and Service Connection.
5. Existing services that remain on new Development projects or tenant improvement projects shall be reviewed for compliance with AWWA minimum sizing requirements.

6.~~14.B.1~~ When an authorized service entrance has been established, meters will normally be furnished and installed between the curb and the property line. The charges for meters shall be in accordance with applicable sections of the Code.

7.~~14.B.2~~ No rent, or other charge, will be paid by the City for a meter or other facility, including housing and connections, located on a Customer's Premises.

8.~~14.B.3~~ All meters will be sealed by the City at the time of installation, and no seal shall be Tampered with or broken by the Customer at any time thereafter.

9.~~14.B.4~~ The City reserves the right to meter any and all services and to apply the established metered rates to the quantity of water measured by them.

14.C CHANGES IN LOCATION OF METERS AND SERVICE CONNECTIONS

Meters or services moved for the convenience of the Customer will be relocated at the Customer's expense.

14. SERVICE CONNECTIONS AND METERS (Continued)

14.D CHANGES IN SIZE OF METER

Upon request of a Customer and subject to the approval of the Director, the size of an existing meter may be changed at the Customer's expense. After the meter change is made, the monthly rates shall be adjusted to reflect the change in meter size. ~~Charges for meter changes shall be made by applying the rates shown in the Code to the applicable situation as follows:~~

~~14.D.1 When an existing meter is replaced in size by a larger meter, the Customer shall be given a credit for the rate established for the existing meter. Said credit shall be applied against the rate established for the larger meter, and the differential cost shall be paid to the City by the Customer.~~

~~14.D.2 When an existing meter is replaced in size by a smaller meter, the Customer shall be given a credit for 70% of the rate established for the existing meter. Said credit shall be applied against the rate established for the smaller meter and the differential cost, if any, shall be paid to the City or refunded to the Customer as the case may be.~~

14.E SUBMETERING

All Developments shall comply with the Submetering requirements of the California Water Code, Health and Safety Code and Building Code. All requests for exemptions shall be submitted to the City's Building Official.

~~14.E~~14.F OWNERSHIP

The Service Connection, whether located on public rights-of-way or easements through private property, is the property of the City~~,; and~~ the City reserves the right to repair, replace and maintain it, ~~as well as~~and to remove it upon discontinuance of service.

~~14.F~~14.G MAINTENANCE

The Service Connection, including the meter and the meter box, will be repaired and maintained by the City at its expense except for damages as set forth in Section 13. The City is not responsible for the installation and/or maintenance of water lines beyond the end of its Service Connections and/or meter.

~~14.F~~14.H SPLIT SERVICE CONNECTIONS

The City, in several locations, has installed in residential subdivisions two meters on a common service, known as a "split service." In the event that a Customer wishes a single service to replace the split service, the charges will be in accordance with the City Code for a new one-inch (1") service including street opening fees.

~~15. MAIN EXTENSIONS~~

~~15.A EXTENSIONS~~

~~Main extensions and Service Connections for Applicants, sub-dividers or property developers shall be made in accordance with the applicable provisions of the Code.~~

~~15.B RIGHT TO CHANGE POLICY~~

~~It is understood that the policy stated herein may be changed by the City Council at such time or times as it may deem advisable or necessary. In no instance is this policy to apply retroactively to any subdivision, development, or Service Connection previously approved by the City Council and for which an agreement covering Water Service has been executed.~~

~~16.~~15. ~~AUTOMATIC~~ FIRE SERVICE CONNECTIONS

~~16.A~~15.A PURPOSE

A~~n automatic~~ F~~f~~ire Service Connection of four-inch (4"~~"~~) diameter or larger, up to one size increment smaller than the ~~the~~ size of the connected Main, will be ~~furnished~~ permitted in accordance with City Standards only if adequate provision is made to prevent the use of water from such Service Connection for purposes other than fire extinguishing.

~~16.B~~15.B REQUEST AND APPLICATION

1. All requests for ~~automatic~~ F~~f~~ire Service Connections shall require an encroachment Permit from the Department of Public Works and shall be ~~referred to~~approved by the Water Utility.
2. All new Fire Services or existing services that will install a new Backflow Prevention Device or upgrade an existing Backflow Prevention Device requires the approval of the City Fire Department.

~~16.B.2~~3. The Permit submittal shall meet the requirements of the Development review and Permitting process and shall, at a minimum, include ~~A~~a location map with a job title and the date the service is needed. ~~shall accompany each request.~~

~~16.B.3~~4. The C~~c~~ontractor or Owner shall ~~make~~ submit an encroachment Permit application for the F~~f~~ire S~~s~~ervice at the ~~Utilities Office~~Department of Public Works and shall also submit an application for all necessary fire Permits with the City Fire Department.

15.C BACKFLOW PREVENTION DEVICES FOR FIRE SERVICE CONNECTIONS

1. An approved Backflow Prevention Device is required for all Fire Service Connections to Premises receiving water from the City. The Backflow Prevention Device shall be placed at the Service Connection or at a location approved by the City. Backflow Prevention Devices shall comply with all requirements of Section 19, Cross-Connections, of these Rules and Regulations and the City's Standard Details.
2. The applicant shall design the onsite fire suppression system to accommodate the available pressures and flow downstream of the Backflow Prevention Device and shall make any necessary modifications to an existing system to ensure that it complies with the requirements of the City Fire Department.

15.D MINIMUM SIZE FOR SINGLE-FAMILY HOMES WITH FIRE SPRINKLERS

The minimum size Service Connection for single-family homes and ADUs with an automatic fire sprinkler system is a one-inch (1") Service Connection and meter.

~~16.C~~15.E INSTALLATION CHARGES FOR CITY WORK

If the applicant requests that the City installs the Fire Service Connection, t~~T~~he applicant will be required to make payment of the fees as specified in the Code for the ~~automatic~~ F~~f~~ire S~~s~~ervice in advance of installing the Service Connection.

~~16.D~~15.F QUANTITATIVE CHARGES

1. Water for Fires: No charge will be made for water used to extinguish fires.
2. Water for Fire Storage Tanks: Occasionally water may be obtained from an automatic sprinkler service for filling a storage tank connected with F~~f~~ire S~~s~~ervice, but only if written permission is secured from the Water Utility in advance and an approved means of measurement is available. The rates for general use will be applied.
3. Other: Water lost through leakage or in unauthorized testing or used in violation of these Rules and Regulations shall result in an imposition of regular Water Service rates on the F~~f~~ire S~~s~~ervice account for a minimum of three billing cycles or longer, until such time as illicit use of water through the F~~f~~ire Service Connection is discontinued.

15.G TESTING

The Owner shall request the authorization of the Water Utility for testing or use of a Fire Service Connection prior to scheduling. The request shall be in writing and may be delivered in person or by email to Water@SantaClaraCA.gov. The water used shall be tracked and reported to the Water Utility and shall be charged at the regular Water Service rate.

~~16.E~~15.H VIOLATION OF ~~AGREEMENT~~RULES AND REGULATIONS

If water is used from a F~~f~~ire S~~s~~ervice in violation of the agreement or of these Rules and Regulations, the City may, at its option, discontinue and remove the service.

~~16.F~~15.I OWNERSHIP OF CONNECTION

The Service Connection and all equipment A~~a~~ppurtenant thereto shall be the sole property of the City, and no part of the cost thereof will be refunded to the applicant.

~~16.G~~15.J PRESSURE AND SUPPLY

The City assumes no responsibility for loss or damage because of lack of water or pressure and merely agrees to attempt to furnish such quantities and pressures as are available in its general distribution system. The service is subject to shutdowns and variations required by the operation of the system or due to accidents beyond the ability of the City to control.

15.K FIRE FLOW AND DEVELOPMENT IMPACT REQUESTS

1. Applications for fire flow data and Development Impact Analysis (DIA) may be submitted to the Water Utility in person or by email to Water@SantaClaraCA.gov.
2. Fees~~Charges~~ for the fire flow analysis and/or DIA are payable in advance and shall be in accordance with the applicable section of the Code.
3. The City performs all fire flow analysis and DIA on a hydraulic model. ~~and will provide results from the time of peak usage.~~

~~6~~156. ~~AUTOMATIC~~ FIRE SERVICE CONNECTIONS (Continued)

4. Fire flow data and DIA results may vary~~change~~ over time due to changes in the City's Water System or discrepancies between in-field fire flow results and fire flow results from hydraulic modeling.
5. The applicant or Owner is responsible for meeting the requirements of the City Fire Department and Water Utility at all times and may be required to modify their fire sprinkler system based on the most current fire flow data in order to meet the Fire Department's requirements and the Water Utility's requirements.

~~16.H~~15.L RATES

Monthly charges furnished for ~~automatic~~ fire sprinkler service shall be at the established rates.

~~17~~16. FIRE HYDRANTS

~~17.A~~16.A USE OF AND DAMAGE TO FIRE HYDRANTS

No person or persons, other than those designated and authorized by proper authority, shall open any fire hydrant, attempt to draw water from it or in any manner damage or Tamper with it. Any violation of this regulation is punishable by law, and in accordance with City Code.~~17.B INSTALLATION OF FACILITIES ON PRIVATE PROPERTY~~

~~Fire hydrants and other facilities will be installed for use on private Premises by the City under agreement entered into by the parties concerned and the City.~~

~~17.C~~16.B MARKING OR COLOR CODING OF FIRE HYDRANTS

1. Public Hydrants: All public hydrants including, but not limited to, hydrants which are municipally installed, operated, controlled and maintained shall have white barrels or bodies with the color coding, marking, or stenciling as required by the State Fire Marshal.
2. Private Hydrants: All private hydrants shall have the barrel, top, and nozzle caps painted "safety yellow" to distinguish them from public hydrants.

16.C~~17.D~~ MODIFICATION OR RELOCATION OF FIRE HYDRANTS

1. The City, at its sole discretion, reserves the right to install a new fire hydrant or to relocate an existing fire hydrant to a new location within the right of way or along the frontage of a Customer's Premises.
2. If a property Owner, or other party of a developed or redeveloped Premises, desires a change in the size, type or location of an existing fire hydrant, said Owner or other party shall bear all costs of such changes, without refund. ~~If a fire hydrant is installed by the City which precedes the development of the Premises and the location of said fire hydrant interferes with the development of the Premises, the City, at its sole expense, shall move the existing fire hydrant to a new location on the Premises.~~
3. Any change in the location of a fire hydrant must be approved by the Water Utility and the Fire Chief.

16.D~~17.E~~ WATER FROM FIRE HYDRANTS

1. Permit to Use ~~Extract~~ Water is Required: It shall be unlawful for any person to take water from any City fire hydrant or any City water facility~~, except the City Fire Department,~~ without first obtaining a P~~p~~ermit and complying with ~~the regulations contained in~~ these Rules and Regulations.
2. Application; Issuance and Deposit: ~~After application to and approval of the Water Utility,~~ The P~~p~~ermits required by the preceding section will be issued by the Water Utility. Applications for the temporary use of water from a public fire hydrant shall be filed with the Water Utility Office at City Hall. The application shall include an exhibit showing the location(s) of the fire hydrant(s) that will be used.

~~7~~16~~7~~. FIRE HYDRANTS (Continued)

After application to and approval of the Water Utility , the applicant shall pay a deposit to the Municipal Services Division Office ~~upon application and payment of a deposit~~, a portion of which is non-refundable. (The refundable portion of a deposit is not normally required of other public agencies or utilities.) A copy of the receipt confirming payment shall then be provided to the Water Utility.

3. Denial or Revocation: The City shall have the right to refuse or revoke any P~~p~~ermit issued pursuant to these Rules and Regulations ~~when the use of same results in surging or pressure complaints due to careless operation of the fire hydrant valve or for any other cause~~.

4. Issuance of Equipment; Manner of ~~Extracting~~ Using Water; Water Meters Generally: An appointment will be scheduled for ~~T~~the ~~A~~applicant filing for a P~~p~~ermit under the preceding ~~section shall then report to the~~ Water and Sewer Utilities Meter Shop to issue and install ~~corporation yard, where a~~the portable water meter and B~~b~~ackflow P~~p~~revention D~~d~~evice with hose adapter for connection to the City fire hydrants ~~and a spanner wrench will be issued~~. No other equipment, tools or accessories shall be furnished by the City. All water used must be taken through the water meter and B~~b~~ackflow P~~p~~revention D~~d~~evice assemblies shall be locked by the City. The P~~p~~ermittee shall not make any modifications, T~~t~~amper, remove or relocate the portable water meter and B~~b~~ackflow P~~p~~revention D~~d~~evice without the prior approval of the Water and Sewer Utilities Meter Shop.

   The Water Utility shall have the right to test and inspect these devices to ensure that they are working in a satisfactory manner. All meters shall be tested by the Water and Sewer Utilities Meter Shop every six (6) months, at a minimum. Service of water shall be immediately discontinued by the Water Utility if the B~~b~~ackflow P~~p~~revention D~~d~~evice is not installed, if the relief valve is T~~t~~ampered with or dumping, if it is found that the B~~b~~ackflow P~~p~~revention D~~d~~evice has been removed or bypassed, if unprotected C~~c~~ross-C~~c~~onnections exist on the P~~p~~remises, or if the C~~c~~ustomer fails to timely report their meter reading or pay any charges due here under. Service will not be restored until such conditions are corrected.

   The applicant shall immediately notify the Water and Sewer Utilities Meter Shop at the time the hydrant meter is no longer being used. An appointment will be scheduled for the Water and Sewer Utilities Meter Shop to remove the portable water meter and B~~b~~ackflow P~~p~~revention D~~d~~evice from the hydrant. ~~The P~~p~~ermittee shall notify the Santa Clara Fire Department upon the issuance of the water meter and before the use of the hydrants. The water meter shall be immediately removed and disconnected from the fire hydrant after hydrant use has concluded. The P~~p~~ermittee shall notify the Santa Clara Fire Department at the time the hydrant is no longer being used.~~

5. Reading of Water Meters and Rendering of Accounts; Water Drawn for Use Outside City

~~7~~16~~7~~. FIRE HYDRANTS (Continued)

(a) Meters provided for in the preceding section shall be read monthly. The ~~meter reading can be performed during working hours at the Water and Sewer Utilities~~Utility ~~corporation yard, between the twenty fifth and the last day of each month. Or the~~ meter reading shall~~can~~ be recorded and sent to the Water Utility by email at Water@S~~s~~antaC~~e~~laraCA~~ca~~.gov by the fifth (5th) of each month. ~~on a card issued with the meter and mailed to the Municipal Services Division Office by the twentieth~~ (20th) ~~of each month.~~

(b) Accounts whose meters are not read during this period shall be billed the monthly minimum for a three-inch (3") meter and this amount shall not be applicable as payment toward water used, either previously or thereafter. In addition to the monthly minimum, the P~~p~~ermittee remains responsible for the full amount of water actually used. Accounts shall be billed monthly for water used at the rates established therefore by the City. Water drawn for use in projects outside the City shall be billed and paid for at one and one-half (1.5) times the established City rates.

6. Return of Equipment to City; Final Billing, etc.: When water is no longer need~~requir~~ed, the water meter and other equipment shall be returned to the Water ~~and Sewer Utilities~~Utility corporation yard and checked in. The deposit, less the cost of any damage to the meter or hydrant that was used and less the final billing on water usage, shall be returned to the P~~p~~ermittee.

7. Additional Penalty for Violation of Article; Duties of the Director of Water and Sewer Utilities: In addition to the penalty provided in the City Code, any person violating any provision of the article may be required to pay two (2) times the rate for the water taken, based on an estimate of the quantity of water taken. Such estimate shall be made by the Director ~~of Water and Sewer Utilities~~.

~~18~~17. SWIMMING POOLS AND TANKS

~~18.A~~17.A FILLING SWIMMING POOLS AND TANKS

The use of Swimming Pools shall be subject to the requirements of Title 17 and all successor regulations.

When an abnormally large quantity of water is desired for filling a S~~s~~wimming P~~p~~ool or for other purposes, arrangements may be required prior to taking such water. Permission to take water in unusual quantities will be given only if it can be safely delivered through the City's facilities, if other Customers are not inconvenienced, and if there is no mandatory water rationing in effect at the time of the request. All water used shall be metered and billed for in accordance with prevailing rate schedules.

1. All heated or unheated Swimming Pools and spas that are newly constructed or undergoing additions or alterations within the property lines of a parcel with a single-family Residential dwelling shall be equipped with a non-liquid vapor retardant cover having a manual or power-operated reel system.
   (a) For irregular-shaped Swimming Pools and spas for which it is infeasible to cover 100 percent (100%) of the Swimming Pool or spa with a reel system due to its irregular shape, other types of covers may be allowed.
   (b) Additions or alterations to existing Swimming Pools and spas with a valuation not exceeding $25,000 are exempt from this section.

~~19~~18. CONTROL VALVES

~~19.A~~18.A WATER SUPPLY CONTROL

The Customer shall install a suitable square or a tee head stop on the private riser to the building (or, for multiple buildings, as close to the meter location as practicable) which will operate to control the entire water supply from the Service Connection.

~~19.B~~18.B CURB STOP

Operation by the Customer of the curb stop in the meter box is not permitted except in extreme emergencies. Should the Customer damage the curb stop, they shall reimburse the City for any and all cost of repair or replacement.

~~20~~19. CROSS-CONNECTIONS

~~20.A~~19.A HEALTH REGULATIONS

Regulations of the California State ~~Department of Public Health and the~~Division of Drinking Water (DDW) Standards of the United States Public Health Service, including Title 17 and any successor regulation, prohibit unprotected Cross-Connections between the public water supply and any ~~unapproved~~ other source of water.

~~20.B~~19.B CITY REQUIREMENTS

Backflow Prevention Devices shall be required at the Service Connection or at a location approved by the City for Premises receiving water from the City and falling in one or more of the following categories:

1. Premises having an A~~a~~uxiliary W~~w~~ater supply;
2. Premises on which any substance is handled under pressure in such a fashion as to permit possible entry into the City's water distribution system, including water originating in the City's system that is then boosted in pressure;
3. Premises where the Customer's system has more than one Service Connection coming from different streets, or having internal Cross-Connections that cannot be permanently corrected to meet State and local S~~s~~tandards;
4. Premises and/or Customer's systems where, in the opinion of the City or its representative, there is the potential for pollution or contamination of the City W~~w~~ater S~~s~~ystem in the event of Backflow or back-siphonage.
5. Premises receiving Recycled Water;
6. Premises and or Customer's systems receiving R~~r~~ecycled W~~w~~ater where additives are introduced to the Onsite system. An approved B~~b~~ackflow device shall be added on to the Recycled Water Service Connection to protect the City's R~~r~~ecycled W~~w~~ater system.

7~~6~~.~~5~~ Premises not receiving Water Service ~~other than~~ from the City are exempt from the requirements until they receive Water Service from the City.

~~20.C~~19.C APPROVED BACKFLOW PREVENTION DEVICES

Only approved Backflow Prevention Devices will be accepted. An approved device is any device that has been manufactured and installed in full conformance with the S~~s~~tandards established by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California and that has received the approval of the City for use in Santa Clara.

19.D TYPES OF APPROVED BACKFLOW PREVENTION DEVICES REQUIRED

The type of assembly required to prevent Backflow into the City's Water System shall be one of the four types listed below. A single check valve assembly is not accepted as a Backflow Prevention Device by the City.

1. An Air-Gap Separation (AG).

2. A Reduced Pressure Principle Backflow Prevention Assembly (RP). A device incorporating two or more check valves and an automatically operating differential relief valve located between the two checks, two shutoff valves, and equipped with necessary Appurtenances for testing. The device shall operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water supply side of the device.
3. Reduced Pressure Principle Detector Backflow Prevention Assembly (RPDA). A device that includes a bypass containing a City specific water meter and an approved RP. The City meter shall register accurately for only very low Flow Rates, up to three gallons per minute, and shall allow a registration for all rates of flow.
4. If permitted by the California Code of Regulations Title 17, a Double Check Detector Assembly (DCDA) may be accepted for the retrofit of an existing Service Connection in order to accommodate the hydraulic need of an existing onsite fire suppression system subject to the approval of the Director of Water and Sewer Utilities. The entire assembly shall meet the design and performance specifications and approval of a recognized and City approved testing agency for Backflow Prevention Devices. To be approved, these devices must be readily accessible for the in-line maintenance and testing and be installed per City Standards. The City reserves the right to require an RPDA on any service in order to protect the safety of the City's Water System.

19.E EXISTING SERVICES WITHOUT A DEVICE

Excluding detached single-family homes, Customers with no Backflow Prevention Device are required to install an approved Backflow Prevention Devise (RP or RPDA) per California Code of Regulations Title 17 on all existing water connections (commercial, industrial, domestic, irrigation, fire, etc.) at the Customer's expense within 90 days of notification by the City. Customers seeking Entitlement or Permit approval shall be required to install an approved Backflow Prevention Device to any existing Service Connection to comply with this requirement as a condition of approval.

19.F EXISTING SERVICES WITH A NON-COMPLIANT DEVICE

Customers with single check detectors or other non-compliant devices are required to install an approved Backflow Prevention Device ~~Backflow Prevention Assemblies~~ on existing water connections (commercial, industrial, domestic, irrigation, fire, etc.) at the Customer's expense within 90 days of notification by the City. Customers seeking Entitlement or Permit approval shall be required to upgrade their existing Service Connection to comply with this requirement as a condition of approval.

~~20.D~~19.G PLUMBING CHANGES REQUIRED

In special circumstances, when the Customer is engaged in the handling of especially dangerous or corrosive liquids or industrial or process waters, the City may require the Customer to eliminate certain plumbing or piping connections as an additional precaution and protection to the Backflow P~~p~~reventi~~ve~~ion D~~d~~evices. In making the required plumbing connections, the Customer shall comply with local or S~~s~~tate plumbing ordinances and codes.

~~20.E~~19.H RELIEF VALVE REQUIRED

Suitable pressure relief valves shall be installed and maintained by the Owner in accordance with the requirements of local or state plumbing codes and ordinances.

~~20.F~~19.I BACKFLOW PROTECTION ON ADDITIONAL WATER SUPPLY LINES

Whenever Backflow protection has been found necessary on a water supply line entering a Customer's Premises, then any and all water supply lines from the City's Main entering such Premises, buildings or structures shall be protected by an approved Backflow device per State Cross-Connection requirements including Title 17 and any successor regulations unless the Director ~~of Water and Sewer Utilities~~ determines otherwise.

~~20.G~~19.J INSPECTION OF BACKFLOW PREVENTION DEVICES

The City will be responsible for inspecting and testing all Backflow Prevention Devices, as well as making any necessary repairs identified through inspection and testing. Inspection and testing will be done on at least an annual basis. Fees for this service will be established from time to time.

~~20.H~~19.K INSTALLATION OF BACKFLOW PREVENTION DEVICES

1. New Service Connections. At the time an application for a new service is made by a potential Customer, in accordance with City's policies and regulations, the City will review said application to determine the need for a Backflow Prevention Device on the Customer's service. If Backflow prevention is determined to be required, the Customer shall install a new Backflow Prevention Device or request that the City install a new Backflow Prevention Device and pay the City in advance in accordance with City's established installation fee schedule.
2. Existing Service Connections without Backflow Prevention Devices. The City will inspect, from time to time, the Premises of existing Service Connections that, in the opinion of the City or its representative, may require Backflow prevention. If it is determined that a Backflow Prevention Device is required, such determination by the City shall be final, and the installation of a Backflow Prevention Device shall be a condition of continued Water Service.

~~20.H.3 The City will install the Backflow Prevention Device and charge the Customer the entire cost of the device and its installation. If, in the opinion of the City there was no change in the land use from when the Water Service was first installed, the City may absorb the entire installation cost.~~

~~20.H.4~~3. Upgrading the existing Backflow Prevention Device. An existing Backflow Prevention Device that, in the opinion of the City, does not provide adequate protection, shall be upgraded at the Customer's expense~~ following the procedures in subparagraph 2 above.~~ Upgrading may include repair, complete replacement of the Backflow Prevention Device, or correction on-~~s~~site of~~r~~ C~~c~~ross-C~~c~~onnection hazards.

~~20.I~~19.L INSTALLATION OF FACILITIES ON PRIVATE PROPERTY

1. Backflow Prevention Devices may be installed on private Premises by the City under agreement entered into by the Customer and the City.
2. All City services and Appurtenances located on private Premises shall require the offer and acceptance of an easement for use by the Water Utility prior to activation of service.

~~20.J~~19.M REMOVAL OR MODIFICATION OF BACKFLOW PREVENTION DEVICES

Backflow Prevention Devices shall not be removed or modified by the water user unless approved in advance by the City.

~~20.K~~19.N DISCONTINUANCE OF SERVICE FOR DEFECTIVE APPARATUS

The service of water to any Premises may be immediately discontinued by the City if defects are found in any protective device installation, or if it is found that unprotected Cross-Connections exist. Service will not be restored until necessary corrections are made.

~~21~~20. ONSITE RECYCLED WATER USE

Certain uses of Recycled Water are permitted by the State of California. The requirements for such use are defined by CCR, Title 22, Division 4, of the California Administrative Code and all successor regulations. The use of Recycled Water within the City is further defined under a P~~p~~ermit issued by the California Regional Water Quality Control Board. Wherever the City Rules and Regulations are inconsistent or in conflict with the requirements of Title 22 or of the RWQCB P~~p~~ermit, these Rules and Regulations shall be subordinate.

Since codes, laws, statutes and regulations can change without prior approval or knowledge of the City or South Bay Water Recycling (Program), the City, Program or Water Utility do not assume any liability for errors in this document. It is the responsibility of the Customer to check with the Program before initiating any operational or physical changes to the Recycled Water system.

~~21.A~~20.A ABBREVIATIONS

Abbreviations used throughout Sections 20, 21 and ~~,~~ 22 ~~and 23~~ are listed below for reference. Definitions for terms are listed in Section ~~21~~20.B (below).

AG: Air Gap

AWWA: American Water Works Association

County EHS: County of Santa Clara Environment Health Services

DC Assembly: Double Check Backflow Prevention Assembly

Program: South Bay Water Recycling Program, administered by City of San Jos~~é~~é for the San Jos~~é~~é - Santa Clara ~~Water Pollution Control Plant~~Regional Wastewater Facility

RP ~~Device~~: Reduced Pressure Princip~~al~~le Backflow Prevention ~~Device~~Assembly

State ~~DHS~~DDW: ~~State of California Department of Health Services, Drinking Water Field Operations Branch - Monterey District~~California State Water Resources Control Board – Division of Drinking Water

State RWQCB: California Regional Water Quality Control Board

~~21.B~~20.B DEFINITIONS

Whenever the following terms, or pronouns used in their place, occur in Sections 20, 21, or 22 ~~or 23~~ herein, the intent and meaning shall be interpreted as follows:

Air Gap: A physical separation between the free-flowing discharge end of a water supply pipeline and an open or non-pressure receiving vessel. An approved A~~a~~ir G~~g~~ap shall be at least twice the diameter of the water supply pipe measured vertically above the overflow rim of the vessel (in any case, no less than one inch (1")).

Applicant: Any entity that applies for Recycled Water Service under terms of the appropriate regulations. The approved Recycled Water Customer may be a different party than the Applicant, but must be specified in the Recycled Water Use ~~License~~Permit.

Application for Recycled Water Services: An agreement issued by the Water Utility to a Recycled Water Service Applicant after the satisfactory completion of the service application procedures. This Agreement forms a service agreement between the Recycled Water Customer and the Water Utility that legally binds the Recycled Water Customer to all conditions stated in the Agreement and all applicable Regulatory Agency requirements.

Approved Backflow Prevention Assembly: A device approved by the State of California which is installed to protect any water supply (recycled, potable, Public, private, or O~~o~~n-site) from contamination through Backflow of a substance containing a potential hazard.

Approved Use: An application of Recycled Water in a manner, and for a purpose, designated in a Recycled Water Use ~~License~~ Permit issued by the Program and in compliance with all applicable Regulatory Agency requirements.

Approved Use Area: A site with well-defined boundaries, designated on the approved On-~~S~~site Recycled Water Service Plans, to receive Recycled Water for an A~~a~~pproved U~~u~~se and acknowledged by all applicable Regulatory Agencies.

Cross-Connection~~:~~ (chapters 20-22 only)**:** A physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved as safe, wholesome and potable for human consumption. This includes direct piping between the two systems, regardless of the presence of valves, Backflow Prevention Devices, or other A~~a~~ppurtenances.

~~**Customer:** Any person, persons or firm including any Public utility, municipality or other Public body or institution issued a Recycled Water Use License by the Program. The Customer may be the Owner, tenant, or property manager as appropriate. The City's Rules and Regulations for the Use of Recycled Water apply to all Customers located within the City's boundaries.~~

Certified Site Supervisor: The Recycled Water Customer shall designate a ~~Customer~~ Certified Site Supervisor with the approval of the Program to provide a liaison with the Program, the City, and Water Utility. This person shall be available to the Program at all times, shall have the authority to carry out any requirements of the Water Utility, the City and the Program, and shall be responsible for the installation, operation and maintenance of the Recycled and Potable Water systems and also prevention of potential hazards.

Drip Irrigation System: any non-spray Low Volume Irrigation system utilizing emission devices with a F~~f~~low R~~r~~ate measure~~s~~d 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.

Emitters: Drip irrigation fittings that deliver water slowly from the system to the soil.

~~**Landscape**~~ **Impoundment:** A body of ~~r~~Recycled Water used for aesthetic enjoyment or which otherwise serves a function not intended to include routine Public contact.

~~**Infiltration Rate:** The rate at which the soil will accept water as applied during irrigation, expressed in inches per hour.~~

Inspector: Any person authorized by the Water Utility, the City, the Program or the local health agencies to perform inspections on or off the Recycled Water Customer's site before construction, during construction, after construction and during operation.

Intermittently Pressurized Line: Any irrigation piping downstream of the last valve.

Irrigation Period: The time, from start of water flow to cessation, which a specific area receives Recycled Water by direct irrigation application, no matter how often the specific area is irrigated, e.g., length of the duty cycle.

Irrigation Use: An A~~a~~pproved U~~u~~se of Recycled Water for landscape irrigation as defined under the California Code of Regulations ([~~"~~CCR~~"~~]), Title 22, Division 4, Article 4.

~~**Non-Potable Water:** Water that has not been treated for human consumption in conformance with the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, or any other applicable standards.~~

Off~~-~~s~~-~~Site: Designates or relates to Recycled Water facilities up to and including the water meter.

On~~-~~S~~s~~ite: Designates or relates to facilities owned and operated by a Recycled Water Customer.

Operations Personnel: Any employee of a Recycled Water Customer, whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation or maintenance of equipment on any portion of On~~-~~s~~-~~Site facilities using Recycled Water.

Operator: Any person, persons or firm, who, by entering into an agreement with a Recycled Water Customer, is responsible for operating On~~-~~s~~-~~Site facilities.

Owner (chapters 20-22 only)**:** Any holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year~~,~~ for property for which Recycled Water Service has been requested or established.

Point of Connection: T~~his is t~~he point where the Recycled Water Customer's system ties to the Water Utility's system. This is usually at the water meter at the Service Connection.

Ponding: Retention of Recycled Water on the surface of the ground or other natural or manmade surface for a period following the cessation of an approved Recycled Water use activity.

~~**Potable Water:** That water that is pure and wholesome, does not endanger the lives or health of human beings, and conforms to the latest edition of the California Safe Drinking Water Act, or other applicable standards. Potable Water includes potable fire service without an approved Backflow prevention assembly.~~

~~21~~20. RECYCLED WATER USE (Continued)

Program (South Bay Water Recycling): South Bay Water Recycling (SBWR) is the regional permit holder for recycled water in San José, Santa Clara and Milpitas, ensuring compliance with State regulations for recycled water quality and use. SBWR is a recycled water wholesaler to four retailers: San José Water Company, San José Municipal Water, City of Santa Clara, and City of Milpitas. Customers buy recycled water from the retailer in their location.

Public: Any person or persons at large who may come in contact with facilities and/or areas where Recycled Water is approved for use.

Rate and Fee Schedule: The schedule of all rates, charges, fees and assessments to be made concerning the use of Recycled Water served by the Water Utility as approved or as amended by the City Council.

Recycled Water Customer: Any person, persons or firm including any Public utility, municipality or other Public body or institution issued a Recycled Water Use Permit by the Program. The Recycled Water Customer may be the Owner, tenant, or property manager as appropriate. The City's Rules and Regulations for the Use of Recycled Water apply to all Recycled Water Customers located within the City's boundaries.

~~**Runoff:** When Recycled Water is allowed to drain outside the approved irrigation area.~~

~~**Recycled Water:** Non-Potable Water that is highly treated to the CCR, Title 22, Division 4, of the Environmental Health Water Reclamation Criteria and used for approved purposes other than drinking water.~~

Recycled Water Use ~~License~~Permit: A ~~license~~ Permit issued by the Program to the Recycled Water Customer, which outlines monitoring, self-inspection, reporting, and site-specific requirements. This ~~license~~ Permit is required by the California RWQCB for the use of Recycled Water.

~~**Reduced Pressure Principal Backflow Prevention Device:** A type of Backflow Prevention Device, usually installed near a water meter, which prevents Backflow by a combination of two check valves and a pressure differential relief valve.~~

~~**Regulatory Agencies:** Those Public agencies legally constituted to protect the Public health and water quality, such as the State DHS, the State RWQCB and the County EHS.~~

Restrained Joint: Mechanically restrained pipe joint; also, solvent welded for PVC joints.

~~**Runoff:** When Recycled Water is allowed to drain outside the approved irrigation area.~~

Santa Clara County Environmental Health Services: T~~his agency is t~~he local health protection agency for most areas of Santa Clara County.

~~**Service:** The furnishing of Potable or Recycled Water to a Customer through a metered connection to the on-site facilities.~~

Standard Pipe Length: 18 to 20 feet.

State of California ~~Department of Health Services~~Division of Drinking Water~~.~~: Shall be the State ~~of California Department of Health Services,~~Division of Drinking Water Field Operations Branch - Santa Clara District 17.

Unauthorized Discharge: Any release of Recycled Water that violates the Rules and Regulations of the Water Utility, the City, the Program or any applicable Federal, State or local statutes, regulations, ordinances, contracts or other requirements.

~~21~~20. RECYCLED WATER USE (Continued)

Violation: Non-compliance with any condition or conditions of the User Agreement by any person, action or occurrence, whether willfully or by accident.

~~**Water Utility:** The Water Utility and the City are one and the same.~~

Windblown Spray: Dispersed, airborne particles of Recycled Water that can be transmitted through the air to locations other than those approved for the direct application of Recycled Water.

~~21.C~~20.C SUMMARY OF ON~~-~~SITE INSTALLATION REQUIREMENTS

1. On~~s-S~~ite installation requirements are described in detail in the Program's Rules and Regulations for Design and Operation of On~~s-S~~ite Recycled Water Facilities. However, the following is a summary of the basic requirements:
2. **No Cross-Connections.** No Cross-Connections are allowed between the Recycled Water system and the P~~p~~otable W~~w~~ater system.
3. **Backflow Preventers.** In order to protect the p~~P~~ublic drinking water system from accidental Cross-Connections, a R~~r~~educed P~~p~~ressure P~~p~~rincip~~lea~~l Backflow Prevention ~~Device~~ Assembly is required at all **potable** meters on a site where Recycled Water is present.

   In most cases, Backflow Prevention Devices are **not** required on the **Recycled Water** Service. However, where there is a particular threat to the quality of the Recycled Water, such as a direct connection to an industrial process or an l~~i~~mpoundment of water, the Program may require a Backflow Prevention Device on the Recycled Water Service.
4. **No Hose Bibs.** Generally, hose bibs are not allowed on the Recycled Water system. In most cases, hose bibs can be replaced by quick coupling valves.
5. **No Runoff.** The irrigation system must be configured and operated to prevent R~~r~~unoff outside the Approved Use Area (the boundaries of the site).
6. **No Ponding.** The irrigation system must be configured and operated so that Ponding does not occur. This does not apply to approved and intended l~~i~~mpoundments.
7. **No Windblown Spray.** The irrigation system must be configured and operated to prevent Windblown Spray from passing outside the approved area.
8. **Pipe Identification.** All new Recycled Water piping below or above grade and all existing piping above grade must be labeled with purple tape with the imprinted words "CAUTION – RECYCLED WATER". Purple colored pipe with the required wording is an acceptable alternative.
9. New above grade Potable Water piping used for drinking water systems must also be labeled with blue tape and the words "**POTABLE WATER**."
10. **Horizontal Pipe Separation.** Where possible, a minimum horizontal separation of ten feet (10') between parallel buried Recycled and Potable Water pipelines should be maintained. If a ten~~-~~foot (10') horizontal separation cannot be maintained, then four~~-~~foot (4') minimum separation is allowed with Restrained Joint pipe and subject to the requirements of South Bay Water Recycling. In no case shall a horizontal separation of less than four feet (4') or same trench construction be allowed.

~~21~~20. RECYCLED WATER USE (Continued)

11. **Vertical Pipe Separation.** Recycled Water constant water pressure pipelines must be a minimum of ~~12~~ one foot~~inches~~ (1') below the Potable Water pipelines. Recycled Water constant pressure pipelines are allowed over potable pipelines with a minimum of ~~12~~ one foot (1'~~inches (12")~~) vertical separation if a full S~~s~~tandard P~~p~~ipe L~~l~~ength is centered over the crossing, or the recycled pipeline is sleeved for the same length. Intermittently P~~p~~ressurized Recycled Water pipelines are allowed over potable pipelines with a minimum of ~~12~~ one foot~~inches~~ (12") vertical separation.

12. **Signs.** Signs must be posted in conspicuous areas On~~s-S~~ite which contain the words "RECYCLED WATER – DO NOT DRINK – NO TOMAR" indicating that Recycled Water is used for irrigation (or other) purposes. Generally, signs must be located at all entrances to the facility or use area.

13. **Warning Tags, Stickers and Labels.** All valve boxes (automatic and manual), quick couplers, Recycled Water storage tanks, air/vacuum relief valves, pressure reducing valves, pumps, Backflow Prevention Devices, system controller boxes, or other A~~a~~ppurtenances on the Recycled Water system must be labeled with warning tags, stickers or other labels. The labels, tags or stickers must include the words "RECYCLED WATER – DO NOT DRINK – NO TOMAR" on a purple background.

14. **On~~s-S~~ite (Land) Observation Reports.** At least once a year the site must be inspected for the items listed below while the system is in use. The observations must be submitted to the Program on a report form. The Recycled Water Customer may be required to perform this inspection, or, in some cases, the Program may perform the inspection. The items for the inspection are as follows:

    (a) Is there evidence of R~~r~~unoff of Recycled Water from the site? Show affected area on a sketch and estimate volume.

    (b) Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any Public U~~u~~se areas or Off~~s-S~~ite facilities affected by the odors.

    (c) Is there evidence of Ponding of Recycled Water, and/or evidence of mosquitoes breeding within the irrigation due to ponded water?

    (d) Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the Public that irrigation water is Recycled Water, which is not suitable for drinking?

    (e) Is there evidence of leaks or breaks in the irrigation system piping or tubing?

    (f) Is there evidence of broken or otherwise faulty D~~d~~rip I~~i~~rrigation S~~s~~ystem E~~e~~mitters or spray irrigation S~~s~~prinkler Heads or Spray Heads?

    (g) What corrective actions are being taken to correct any problems noted above?

15. The Recycled Water Customer may also be required to conduct a visual inspection of the system during the off-season. Specific requirements will be included in the Recycled Water Use ~~License~~Permit.

16. **Emergency Cross-Connection Response Plan.** If a Cross-Connection or Backflow incident occurs between the Potable and Non-Potable Water systems, an emergency response plan must be implemented.

~~21.D~~20.D FEES AND ~~LICENSE~~PERMIT

1. **Recycled Water Use ~~License~~Permit.** The State RWQCB requires that a Recycled Water Use ~~License~~ Permit be issued by the Program to all Recycled Water Customers within the Program area. The Recycled Water Use ~~License~~ Permit indicates any special site-specific requirements in addition to the requirements specified in this document. The Application for a Recycled Water Use ~~License~~ Permit is submitted to the City or the Program with the On~~s~~-~~S~~site Recycled Water Service Plans. The Program processes the application and issues a Recycled Water Use ~~License~~ Permit with final approval for the use of Recycled Water at the site. The Applicant is responsible to obtain all necessary P~~p~~ermits and pay all associated fees. ~~-~~The Applicant should contact the City for information on the cost of P~~p~~ermits.
2. **Application for Recycled Water Services.** The Water Utility also requires an Application for Recycled Water Service, similar to application for P~~p~~otable Water Service.

~~21.E~~20.E THE CITY AS THE LOCAL AUTHORITY

1. The City is the entity that has the responsibility of enforcing these Rules and Regulations for the end use of Recycled Water. The City has authority to issue plumbing P~~p~~ermits, building requirements, and planning criteria.
2. The Rules and Regulations enforced by the City are derived from those established by the State RWQCB, the State ~~DHS~~DDW, County EHS, the Program and the City. These Rules and Regulations govern certain permitted uses of Recycled Water. All facilities using Recycled Water shall be designed and operated to meet the S~~s~~tandards of the local governing codes, rules and regulations.

~~21.F~~20.F AUTHORIZED USES FOR RECYCLED WATER

The uses of Recycled Water may include, but not by way of limitation: landscape irrigation; agricultural irrigation; construction water; industrial process water; water for flushing toilets and urinals in ~~high-rise~~non-residential buildings; replacement water in cooling towers; and recreational l~~i~~mpoundments. Each such use ~~must~~ shall be explored by the Recycled Water Customer for applicability to the Development and considered for approval by the City on a case-by-case basis~~, and~~. T~~t~~he City may determine, in its discretion, whether it is necessary or desirable to furnish Recycled Water for the specific use involved. Determinations as to specific uses to be allowed shall be in accordance with the S~~s~~tandards of treatment and water quality requirements set forth in CCR, Title 22, Division 4, of the California Administrative Code. Prior to approving such uses, the City may, in its discretion, set forth specific requirements as conditions to providing such services and/or require specific prior approval from the appropriate Regulatory Agencies. Data centers authorized to use Recycled Water for process water shall design and construct a redundant backup Potable Water system in the event of a service interruption to maintain system operation.

~~21.G~~20.G NON-APPROVED USE AREAS

1. **Runoff Conditions.** The irrigation systems shall be designed, constructed and operated to prevent R~~r~~unoff outside the Approved Use Area.
2. **Ponding Conditions.** The irrigation systems shall be designed, constructed and operated to minimize Ponding outside or within the Approved Use Area. This does not apply to approved l~~i~~mpoundments such as decorative W~~w~~ater F~~f~~eatures, golf course water-hazards or lakes. At no time shall Recycled Water be applied at a rate greater than the soil l~~i~~nfiltration R~~r~~ate.
3. **Windblown Spray Conditions.** The irrigation systems shall be designed, constructed and operated to minimize Windblown Spray from passing outside the Approved Use Area.
4. **Unapproved Uses.** Use of Recycled Water for any purposes other than those explicitly approved by the Water Utility in conformance with the Rules and Regulations of the Program, the State ~~DHS~~DDW, the County EHS, or the State RWQCB, or use of Recycled Water in areas other than those specifically shown on the approved plans, is strictly prohibited.
5. **Disposal in Unapproved Areas.** Disposal of Recycled Water for any purpose, including A~~a~~pproved U~~u~~ses, in areas other than those explicitly approved in the current effective Recycled Water Use ~~License~~ Permit issued by the Program and without the prior knowledge and approval of the appropriate Regulatory Agencies, is strictly prohibited.

~~21.H~~20.H AMENDMENTS

From time to time there may be amendments to the existing Rules and Regulations and design manual. These amendments may be made without the consent of the Recycled Water Customer. These amendments will be enforced upon their effective date.

~~21.I~~20.I PROTECTION OF PUBLIC HEALTH

The Water Utility, the City and the Program reserve the right to take any action necessary with respect to the operation of the Recycled Water Customer's ~~Recycled Water~~ system to safeguard the Public health.

~~21.J~~20.J RIGHT TO TERMINATE SERVICE

1. If at any time during construction or operation of the Recycled Water system, real or potential hazards are evidenced, such as Cross-Connections with the potable system, improper tagging, signing, or marking, or unapproved/prohibited uses, the Water Utility reserves the right and has the authority to terminate immediately, without notice, Recycled Water Service in the interest of protecting the Public health. The Water Utility may elect to temporarily replace the Recycled Water supply water with P~~p~~otable W~~w~~ater only after the Recycled Water Customer's ~~Recycled Water~~ system has been disinfected and approval has been granted by the Program and the State ~~DHS~~DDW. All modifications required to replace the Recycled Water supply with Potable Water shall be at the Recycled Water Customer's expense.

~~21~~20. RECYCLED WATER USE (Continued)

2. The Recycled Water Customer has the right to terminate service if there are no longer suitable uses at that site. The Recycled Water Customer cannot substitute Potable Water where Recycled Water can be used.

~~21.K~~20.K SEVERABILITY

If any section, subsection, clause, or phrase of these Rules and Regulations is for any reason held to be invalid or unconstitutional, such decision shall not affect the remaining portions of these Rules and Regulations. The City Council declares that it would have passed said Rules and Regulations by section, subsection, sentence, clause, or phrase thereof.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER

~~22.A~~21.A DESIGN APPROVAL

Before the construction of any new Recycled Water system, major modifications of an existing Recycled Water system, or retrofit of an existing system for Recycled Water use, On~~-~~s~~-~~Site Recycled Water Service Plans must be prepared by the Recycled Water Customer and approved by the Program and the State ~~DHS~~DDW. Approval shall be contingent upon evidence that all applicable design requirements, rules and regulations for a Recycled Water system are satisfied (see *Basis for Design Review Criteria* below).

~~22.B~~21.B REQUIRED ON~~-~~SITE RECYCLED WATER SERVICE PLANS

Plans must be stamped by a registered L~~l~~andscape A~~a~~rchitect or civil engineer and include, but not be limited to, the following:

1. Site plan drawn to scale which clearly shows the boundaries of the intended use area, adjacent streets, and locations of all major improvements on the site, water meters (Recycled Water and Potable Water), Backflow Prevention Devices, drinking fountains, and all Public facilities supplied with Recycled or Potable Water Service. Public facilities include, but are not limited to, restrooms, outdoor eating areas, snack bars, S~~s~~wimming P~~p~~ools, wading pools, decorative fountains and showers. If there are no Public facilities located in the defined use area, then a note on the plans must indicate that no Public facilities exist.~~—~~ Additionally, any wells, lakes, ponds, reservoirs, or other water l~~i~~mpoundments located On~~-~~s~~-~~Site or within 100 ~~-~~feet (100') of the site must be shown on the site plan.
2. Piping plan which shows the complete P~~p~~otable and Recycled Water systems. All sources of Recycled Water and Potable Water must be indicated on the plan. The location and type of all existing and new Backflow Prevention Devices and water meters must be clearly marked on the piping plan. For existing facilities converting to Recycled Water use, the piping plan must indicate which piping and other devices are existing and which piping and other devices will be installed as part of the retrofit work. The proper separation requirements between Potable and Recycled Water lines (for new piping) must be indicated. The piping plan can be combined with the site plan if space permits.
3. Detail drawings of areas where special installation or retrofit procedures are required, such as cutting and capping to separate potable and recycled systems, installation of Backflow Prevention Devices, special construction where pipe separation criteria cannot be met, etc.
4. Any other items required by the Design, Installation, and Inspection Criteria section of the Recycled Water Customer On~~-~~S~~-~~ite Manual, and Section ~~24. C.~~23.Q of this document.
5. Preparation of On~~-~~S~~-~~ite Recycled Water Service Plans does not exempt the Applicant from submitting other On~~-~~S~~-~~site improvement plans normally required by the City. Other improvement plans required by the City must still be submitted in accordance with the City's S~~s~~tandard procedures.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~22.C~~21.C BASIS FOR DESIGN REVIEW CRITERIA

1. Review of On-~~S~~site Recycled Water Service Plans conducted by the Program and the State ~~DHS~~ DDW will consist of checking for conformance with various regulations and guidelines governing distribution of Recycled Water. Even though the City/Program and the State ~~DHS~~ DDW perform a plan check, the Applicant is not relieved of responsibility to meet all requirements. A brief description of this criteria is provided below. Copies of these criteria will be provided by the City or the Program upon request.
2. ***CCR, Title 22, Division 4, Chapter 3, "Water ~~Reclamation~~ Recycling Criteria".*** These regulations are written by the State ~~DHS~~ DDW and specify the Approved Uses and use area requirements, such as hose bib restrictions, prohibition of irrigation near wells, etc. These regulations govern both the Water Utility's distribution system as well as the Recycled Water Customer's On~~-S~~site system.
3. ***CCR, Title 17, "Drinking Water Supply - Backflow Prevention"*** CCR, Title 17 specifies requirements intended to protect the Public drinking water supply from contamination. Some requirements specified in CCR, Title 17 include Backflow Prevention Devices, designation of a ~~Customer~~ Certified Site Supervisor, and Cross-Connection testing requirements.
4. ***~~American Water Works Association (~~AWWA~~)~~, California-Nevada Section, Guidelines for Distribution of Non-~~P~~potable Water.*** This document provides recommended guidelines for planning, designing, constructing, and operating Non-Potable Water systems, including Recycled Water systems. The guidelines themselves are not regulations but many agencies have adopted them as general requirements. The document covers both installation of the Water Utility distribution systems and On~~-S~~site use systems.
5. **International Association of Plumbing and Mechanical Officials (IAPMO) Uniform Plumbing Code.~~, Appendix J.~~** ~~Appendix J of~~ T~~t~~he Uniform Plumbing Code sets forth requirements when Recycled Water is used within buildings in a D~~d~~ual ~~-P~~plumbed system for N~~n~~on-P~~p~~otable domestic uses such as toilet and urinal flushing. ~~This section of t~~The Uniform Plumbing Code does not apply to irrigation sites, where the Recycled Water system is located outside buildings, or industrial sites, where the Recycled Water is used for non-domestic industrial purposes. In addition, the pipe separation regulations indicated in this Guide are different than and take precedence over the ~~Appendix J requirements. NOTE: Appendix J has not been adopted by Santa Clara and serves only as a reference.~~IAPMO.

Commented [VG4]: 2021 & 2024 version: Appendix J looks to be "Combination of Indoor and Outdoor Combustion and Ventilation Opening Design"

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~22.D~~21.D SUMMARY OF DESIGN REVIEW CRITERIA

Although the plan review conducted by the Program, the State ~~DHS~~ DDW and/or the City may include checking for compliance with any of the existing regulations or guidelines referenced above, the following summaries are provided to give the designer of the Recycled Water system a general idea of the major items which will be checked during plan review. The summary is compiled as a "punch list" so that it can easily be referenced by the plan designer. However, compliance with every item on the punch list does not guarantee that the plans will be approved without comment since regulations and policies may change and some sites may require special provisions. In addition, even though the Program, the State ~~DHS~~ DDW and/or the Local Authorities perform a plan review, the Applicant is still responsible for meeting all applicable requirements, even if those requirements are not shown on the approved plans. Please note that the plan requirements are slightly different for new facilities and existing facilities converting to Recycled Water use.

1. Do plans include a site/piping plan and details of connection points as indicated under *Required Plans* (Section ~~22~~21.B)?
2. Are all items listed under *Required Plans* (Section ~~22~~21.B) shown on the site/piping and details plans?
3. Is the use area shown on the site an Approved Use Area?
4. Is the total Recycled Water irrigation area included to the nearest 10th (0.1) of an acre?
5. At **new facilities**, are all On-~~S~~site Recycled Water pipelines located ten ~~-~~feet (10') horizontally from Potable Water pipelines where possible (minimum of four-foot (4') horizontal separation allowed if special construction details are incorporated)?
6. At **new facilities**, where Recycled and Potable Water lines cross, are the pressurized Recycled Water pipelines located at least one foot (1') below the Potable Water lines?
7. At **existing facilities** converting to Recycled Water use, does all new piping meet the Potable/Recycled Water pipeline separation criteria indicated above?
8. Do the plans indicate that Recycled Water and Potable Water systems are completely separated and there is no common trenching?
9. At **existing facilities** converting to Recycled Water use, are all locations where future Recycled Water piping must be separated from the Potable Water piping clearly indicated on the plans?
10. Are the proper Backflow Prevention Devices shown in the proper location for protection of the Public Potable Water system? ~~Reduced Pressure (RP) principal Backflow prevention assemblies~~RPs should be shown located as close as possible to all Potable Water meters and at least ~~12~~ one foot~~inches~~ (1'2") above grade.
11. If the On-~~S~~site Recycled Water system is interconnected with industrial process piping, fertilizer injection systems, or a N~~n~~on-P~~p~~otable drinking water source (such as an irrigation water storage pond), is the proper Backflow Prevention Device shown in the proper location for protection of the Public Recycled Water distribution system? In such cases, usually an RP device is required at the Recycled Water meter, at least ~~12~~ one foot~~inches~~ (12"') above grade.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

12. Are the proper Backflow Prevention Devices shown in the proper locations for protection of On~~-S~~s~~i~~ite Potable Water supply per standard UPC and CCR, Title 17 requirements? Though not specifically related to Recycled Water, these devices should be shown on the plans. Backflow Prevention Devices are required at non-A~~a~~ir-G~~g~~ap Points of Connection to ponds, wading pools, S~~s~~wimming P~~p~~ools, fountains, etc., where the I~~i~~mpoundment is supplied by the P~~p~~otable W~~w~~ater O~~o~~n-~~s~~site piping. Usually atmospheric vacuum breakers located near the Point of Connection are adequate, unless there is a valving downstream of the protection device, in which case pressure vacuum breakers are required.
13. If there are wells located On-~~S~~site or near the use site, are the wells separated from all Recycled Water I~~i~~rrigation U~~u~~se areas by at least 50 feet (50') and from all Recycled Water I~~i~~mpoundments by at least 100 feet (100')?
14 If plans are used for construction, do plans show all necessary details to properly construct the system?
15. Do plans identify that materials are appropriate for Recycled Water use? (For example, purple pipe, proper signing and tagging, etc.)
16. Do plans identify work~~s~~ requiring inspection by the Program representatives?
17. Do plans include a detail for Air Gap if a backup source is used?
18. Do plans specify no hose bibs on the Recycled Water system?

~~22.E~~21.E PRELIMINARY CROSS-CONNECTION TEST EXISTING SITES

At all existing sites which are converting to Recycled Water use, a preliminary Cross-Connection test may be required and shall be coordinated by the Recycled Water Customer prior to retrofit work or construction. The Recycled Water Customer must notify the Program prior to the Cross-Connection test so that the Program, the Water Utility, the City, and R~~r~~egulatory A~~a~~gency representatives can be present if they wish. The preliminary Cross-Connection test should follow the general C~~c~~ross-C~~c~~onnection testing guidelines outlined in Section ~~22~~21.I. The purpose of the test is to determine if there are any unknown connections between the existing irrigation system and the domestic water system prior to construction. If unknown connections are discovered, then further testing or potholing must be conducted in order to determine where the connections are located. The retrofit plans must be revised to reflect any changes required to eliminate the connections, and the revised plans must be resubmitted to the Program and the State ~~DHS~~ DDW for review. At new D~~d~~evelopment sites, a preliminary Cross-Connection test is generally not necessary since the systems have been designed for Recycled Water use.

~~22.F~~21.F CONSTRUCTION INSPECTION

The State RWQCB requires that the Program, the City, or designated representatives conduct On-~~S~~site inspections during the construction phase to ensure that materials, installation and procedures are in accordance with the approved plans, specifications, and all applicable regulations. Accordingly, the Recycled Water Customer shall notify the Program of the schedule for all phases of planning, construction and start up so that inspections can be scheduled.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~22.G~~21.G FIELD TESTING AND INSPECTION

All systems shall conform to the requirements of the UPC Sections 103.5.1 through 103.5.4.2 except intermittent pressure piping. During the coverage test with Recycled Water, the irrigation system shall be inspected for proper use of full, half, and quarter Spray~~sprinkler~~ H~~h~~eads, proper atomizing, and irrigation spray on non-Approved Use Areas.

~~22.H~~21.H TEMPORARY CONNECTION TO POTABLE SERVICE

A jumper to the potable system is allowed up to and during the final Cross-Connection test. At that time the jumper shall be replaced by the Recycled Water meter. Jumpers providing water from the Public Recycled Water system into the On-~~S~~site Recycled Water system are prohibited at all times.

~~22.I~~21.I FINAL CROSS-CONNECTION TEST

The Recycled Water Customer must conduct a final Cross-Connection test before connecting the Recycled Water Customer's ~~Recycled Water~~ system to the Water Utility's Recycled Water system at any use-site where both Recycled and Potable Water are present in separate piping systems. This test is to ensure the absolute separation of the R~~r~~ecycled and P~~p~~otable W~~w~~ater systems. The Recycled Water Customer must notify the Program at least 48 hours prior to the test so that members of the appropriate agencies may be present. The Cross-Connection test shall be done under the supervision of the Program representatives by an AWWA-certified Cross-Connection control specialist hired by the Applicant. The ~~Customer~~ Certified Site Supervisor (see *Designation of ~~Customer~~ Certified Site Supervisor,* herein) must be present at the test. Periodic testing must be performed after that (see *Periodic Cross-Connection Testing Program,* herein). A written report documenting the test results shall be submitted by the certified Cross-Connection control specialist to the ~~Customer~~ Certified Site Supervisor and the Program following completion. The following are general test guidelines and may be modified with the approval of the Program.

1. **General Cross-Connection Test Procedures:** Cross-Connection tests shall be performed as specified in the UPC Appendix J 8 (2) and J 8 (3), with the exception that intermittent piping will not be activated and pressurized as specified in Appendix J 8 (2)(vi), and that the required pressurization time will be one (1) hour or as otherwise specified by the Cross-Connection specialist. The City of Santa Clara's Cross-Connection test procedures are summarized as follows:
2. **Minimum Requirements for Cross-Connection Testing:** The Cross-Connection test shall be done with the ~~Customer's~~ Certified Site Supervisor present, under the supervision of a City representative by an AWWA-certified Cross-Connection control specialist. The Cross-Connection test shall include the following steps:
   (a) For Premises with irrigation systems originally constructed with a potable service, all Potable Water supply points to the irrigation system are to be disconnected and capped. These points shall remain open to view until after a visual inspection by the City. This step may be deferred until after the following steps are completed, that is, the Cross-Connection test may be completed with Potable Water being supplied to the recycled piping.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

(b) When the recycled service is ready to be activated, while still OFF: City Inspectors shall determine that there is no water being supplied to the irrigation system. This may be by use of a pressure gauge installed on the normally pressurized portion of the irrigation S~~s~~prinklerpray H~~h~~eads. This procedure is to e~~i~~nsure no P~~p~~otable W~~w~~ater source is supplying water to the irrigation system.

(c) After the Recycled Water S~~s~~ervice is activated and turned ON, the potable service to the property is to be turned OFF and de-pressurized. A pressure gauge will be connected to the potable service at the building to measure the potable system pressure during this test. While the potable system is not in use, there shall be no observed increase in pressure for at least 15 minutes. For multi-story buildings, maximum pressure at the ground floor is not to exceed static pressure equal to elevation pressure to the top floor or roof of the building (the highest point of the internal plumbing).

~~22.J~~21.J FINAL INSPECTION

The State ~~DHS~~ DDW requires a final On-~~S~~site inspection to be conducted by the Program or its designated representatives. Accordingly, a final inspection will be performed by the Program or its designated representatives before the Recycled Water system is connected to ensure all requirements have been met. This inspection will be coordinated with the final Cross-Connection test so that the inspection can be done with Potable Water charging the irrigation system at Recycled Water pressure prior to connection of Recycled Water. The Program's I~~i~~nspector will check to see that the proper equipment was used and that all required tags, labels, and signs are in place. This inspection shall precede the coverage test which will be performed with Recycled Water. This will allow the I~~i~~nspector to determine if conditions which create R~~r~~unoff or Windblown Spray outside the Approved Use Area, Ponding within the use area do not exist. Spray patterns will be checked to see they do not encroach upon Public facilities such as drinking fountains, outside eating areas, or areas outside the Approved Use Area.

~~22.K~~21.K FINAL APPROVAL

Final approval must be granted by the Program before Recycled Water can be supplied to the site. Final approval will be granted when construction has been completed in accordance with approved plans and specifications, all Cross-Connection tests have been performed, a final On-~~S~~site inspection has been conducted, and all requirements have been met satisfactorily. After the Recycled Water Use ~~License~~ Permit has been finalized by the Program, the Water Service Agreement is approved by the Water Utility, and all applicable fees have been paid, the Water Utility will authorize the installation of the Recycled Water meter. (The coverage test will be performed after the meter has been set) the ~~State DHS~~Program will be forwarded a copy of all test and inspection reports as well as notification that Recycled Water Service has been started. During the lifetime of the Recycled Water system, the City or the Program will periodically inspect the Recycled Water system to ensure compliance with all applicable rules and regulations (see *Annual Self-Inspections*, herein). Additionally, the Recycled Water Customer shall conduct a Cross-Connection test every four years if required by the Recycled Water Use ~~License~~Permit.

~~22~~21. DESIGN, INSTALLATION AND INSPECTION OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~22.L~~ 21.L RECORD DRAWINGS

All conceptual or major design changes shall be approved before implementing the change in the construction contract. Record D~~d~~rawings shall be prepared to show the recycled system as constructed and shall include all changes in work constituting departures from the original contract drawings including those involving both constant pressure and Intermittent-Pressure Lines and A~~a~~ppurtenances.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER

~~23.A~~22.A CONDITIONS OF SERVICE

All requirements outlined in this section shall be Conditions of Service, unless modified in the Recycled Water Use ~~License~~Permit. By accepting Recycled Water Service, the Recycled Water Customer agrees to comply with all Conditions of Service.

~~23.B~~22.B SYSTEM RESPONSIBILITY

1. It shall be the responsibility of the Recycled Water Customer to maintain and operate their Recycled Water system downstream of the Service Connection. It is the responsibility of the Recycled Water Customer to ensure that the Recycled Water is being applied in accordance with all rules and regulations regarding the use of Recycled Water. The Recycled Water Customer is also responsible for the following:
   (a) Maintaining the On-~~S~~site Recycled Water system, signs, markings, and tags in accordance with all rules and regulations.
   (b) Ensuring all materials used during the repair and maintenance of the system are approved or recommended for Recycled Water use.
   (c) Obtaining all P~~p~~ermits and payment of all fees required for the operation and maintenance of the Recycled Water Customer's ~~Recycled Water~~ system. Permitting and/or fee assistance may be available from the City or the Program.
   (d) Reporting all Violations and emergencies to the required local governing agencies.
   (e) Obtaining prior authorization from the Water Utility and the Program before making any modifications to the approved Recycled Water system. This includes converting any piping used at any time for conveyance of Recycled Water back to Potable Water, that is switching a Recycled Water system to a backup Potable Water system. The Program will notify the Recycled Water Customer if approval is also required from any additional R~~r~~egulatory A~~a~~gencies and if disinfection procedures are required.

~~23.C~~22.C HOURS OF OPERATION

Hours of operation shall be specified in the Recycled Water Use ~~License~~Permit.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~23.D~~22.D DESIGNATION OF ~~CUSTOMER~~ CERTIFIED SITE SUPERVISOR

It is the responsibility of the Recycled Water Customer to provide surveillance and supervision of the Recycled Water system in a way that assures compliance at all times with current regulations. In order to accomplish this, the Recycled Water Customer shall designate, with the approval of the Program, a ~~Customer~~ Certified Site Supervisor to provide liaison with the City, the Water Utility and the Program. This person may represent the Owner, tenant, or property manager as appropriate; however they~~he/she~~ must be a permanent employee responsible for the Recycled Water system at the site who is available at all times and has the authority to carry out any requirements of the Program, the City, and the Water Utility. The ~~Customer~~ Certified Site Supervisor should be permanently stationed at the use site, or at a minimum, make frequent visits to the use site as specified in the Recycled Water Use ~~License~~Permit. Installation, operation, maintenance, and prevention of potential hazards on the Recycled and Potable Water systems are the responsibility of the ~~Customer~~ Certified Site Supervisor. The ~~Customer~~ Certified Site Supervisor's primary responsibility is to ensure that there are no Cross-Connections made between the Potable and Recycled Water systems. The ~~Customer~~ Certified Site Supervisor must be present at the final C~~c~~ross-C~~c~~onnection test and periodic Cross-Connection tests. The ~~Customer~~ Certified Site Supervisor shall inform the Program of all failures, Violations, and emergencies that occur involving the Recycled or Potable Water systems. The ~~Customer~~ Certified Site Supervisor is also responsible to be knowledgeable of the provisions contained in CCR, Title 17 and CCR, Title 22 relating to the safe use of Recycled Water and the maintenance of accurate records. The ~~Customer~~ Certified Site Supervisor must be familiar with the basic concepts of Backflow and Cross-Connection prevention, system testing and relating emergency procedures. The Recycled Water Customer must notify the Program immediately of any change in personnel for the ~~Customer~~ Certified Site Supervisor position.

22.G MAINTENANCE

1. To ensure the Recycled Water system remains in compliance, the Recycled Water Customer shall begin a preventative maintenance program including, but not limited to, the following:
   (a) Regular inspections shall be conducted by the Recycled Water Customer of the entire Recycled Water system including Spray Heads, Drip Irrigation Emitters, spray patterns, lakes, piping and valves, pumps, storage facilities, controllers, etc. Immediately correct any leaks, breaks, or discrepancies in Permit requirements.
   (b) All warning signs, tags, stickers, and above grade pipe markings shall be checked for their proper placement and legibility. Replace damaged, unreadable or missing signs, tags, stickers, and pipe markings.
   (c) Special attention should be given to spray patterns to eliminate Ponding, Runoff and Windblown Spray conditions. If Runoff is noted, affected areas should be indicated on a sketch and the volume should be estimated. If unauthorized Ponding is detected, evidence of mosquitoes breeding within the Ponding should be noted and immediately eliminated.
   (d) Establish and maintain an accurate record keeping system of all inspections, modifications and repair work.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

(e) Broken Spray Heads, faulty spray patterns, leaking pipes or valves, or any other noted condition which violates the use requirements shall be repaired immediately after the malfunction or condition becomes apparent.

~~23.E~~22.E PERSONNEL TRAINING

It is the responsibility of the Recycled Water Customer to train all O~~o~~perations P~~p~~ersonnel, in order to be familiar with the use of Recycled Water. Any training program should include, but not limited to, the following:

1. Operations P~~p~~ersonnel must be aware of the emergency procedure.
2. Operations P~~p~~ersonnel must be aware that Recycled Water, though highly treated, is Non-Potable Water.
3. Operations P~~p~~ersonnel must understand the requirements and restrictions pertaining to Ponding, Windblown Spray and Runoff.
4. Good personal hygiene must be followed.
5. Recycled Water shall never be used for human consumption.
6. Operations P~~p~~ersonnel must understand that working with Recycled Water is safe if good common sense is used and appropriate regulations are followed.
7. Operations P~~p~~ersonnel must understand that there is **never** to be a connection between the Recycled Water system and the Potable Water system.
8. Operations P~~p~~ersonnel must understand the health/safety aspects of CCR, Title 17 and CCR, Title 22 requirements.
9. All new employees shall be trained in the proper use of Recycled Water. Supervisory personnel and the ~~Customer~~ Certified Site Supervisor should be held accountable to ensure that employees are not using Recycled Water carelessly or hazardously.

~~23.F~~22.F VEHICLE IDENTIFICATION

1. Any vehicle used to transport Recycled Water shall be clearly marked with labels or signs. These labels or signs shall contain the words “RECYCLED WATER – DO NOT DRINK – NO TOMAR” in black two-inch (2”) high minimum letters on a purple background. The Program may also require the label to include translations into foreign language(s) if appropriate, as specified in the Recycled Water Use ~~License~~Permit. One label or sign shall be placed on the tank closest to the driver’s door. One label or sign shall be placed on the rear surface of the tank. All labels and signs shall be placed where they can easily be seen by the personnel using the vehicle.
2. The “Do Not Drink” symbol (refer to the Recycled Water Customer On-~~S~~site Design Manual) shall be present on all vehicles used to carry Recycled Water. Any vehicles used for the transportation or storage of Recycled Water must not be reused for the transportation or storage of Potable Water.

~~**23.G MAINTENANCE**~~

~~1. To ensure the Recycled Water system ways remains in compliance, the Customer shall begin a preventative maintenance program to include, but not limited to, the following:~~

~~(a) Regular inspections shall be conducted by the Customer of the entire Recycled Water system including sprinkler heads, drip irrigation emitters, spray patterns, lakes, piping and valves, pumps, storage facilities, controllers, etc. Immediately correct any leaks, breaks, or discrepancies in license requirements.~~

~~(b) All warning signs, tags, stickers, and above grade pipe markings shall be checked for their proper placement and legibility. Replace damaged, unreadable or missing signs, tags, stickers, and pipe markings.~~

~~(c) Special attention should be given to spray patterns to eliminate Ponding, Runoff and Windblown Spray conditions. If runoff is noted, affected areas should be indicated on a sketch and the volume should be estimated. If unauthorized Ponding is detected, evidence of mosquitoes breeding within the Ponding should be noted and immediately eliminated.~~

~~(d) Establish and maintain an accurate record keeping system of all inspections, modifications and repair work.~~

~~(e) Broken sprinkler heads, faulty spray patterns, leaking pipes or valves, or any other noted condition which violates the use requirements shall be repaired immediately after the malfunction or condition becomes apparent.~~

~~23.H~~22.H ANNUAL SELF-INSPECTIONS AND REPORTS

1. **Standard On-~~S~~site (Land) Observation Report.** The State RWQCB requires that the Recycled Water Customers in the Program conduct a standard observation inspection at least once a year at a time when the Recycled Water system is in use. In general, the standard observations correlate with the preventative maintenance self-inspections. The Recycled Water Customer must submit the results of the observations along with a description of any corrective actions taken in a written report to the Program (see ~~*Sample 22.P Forms*~~). The schedule and deadlines for submittal of this report is indicated in the Recycled Water Use ~~License~~Permit. The seven items for inspection are as follows:

   (a) Is there evidence of Runoff ~~of Recycled Water~~ from the site? Show affected area on a sketch and estimate volume.

   (b) Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any Public U~~u~~se areas or Off~~s~~-~~S~~ite facilities affected by the odors.

   (c) Is there evidence of Ponding Recycled Water, and/or evidence of mosquitoes breeding within the irrigation area due to P~~p~~onded water?

   (d) Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the Public that irrigation water is Recycled Water, which is not suitable for drinking?

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

(e) Is there evidence of leaks or breaks in the irrigation system piping or tubing?

(f) Is there evidence of broken or otherwise faulty Ddrip ~~i~~Irrigation Ssystem Ee~~e~~mitters or Overhead ~~s~~Spray Iirrigation ~~sprinklers~~?

(g) What corrective actions are being taken to correct any problems noted above?

2. **Off-Season Inspection Report.** The State RWQCB also requires that the Program Recycled Water Customers conduct a thorough inspection of all irrigation lines, ~~sprinklers~~Overhead Spray Irrigation, and Dd~~r~~ip Ss~~y~~stem Ee~~e~~mitters at least once a year during the dormant season. The findings of this inspection, along with any significant repairs or modifications must be submitted in a report to the Program (see ~~*Sample*~~ *22.P Forms*). The schedule and deadlines for submittal of this report are indicated in the Recycled Water Use ~~License~~Permit.

~~23.I~~22.I PERIODIC PROGRAM INSPECTIONS

1. The State RWQCB also requires that the Program conduct periodic inspections of Recycled Water Customer ~~Recycled Water~~ use sites. These inspections shall include, at a minimum, the visual inspection of all Backflow Prevention Devices, pump rooms, exposed piping, valves, pressure reducing stations, Points of Connection, ~~sprinklers~~Overhead Spray Irrigation, Dd~~r~~ip Ss~~y~~stem Ee~~e~~mitters, controllers, lakes, storage facilities, signs, labeling, tags, etc. The ~~Customer~~ Certified Site Supervisor's maintenance records shall be inspected to review all maintenance since the last inspection. The Program, the Local Authority, and RWQCB reserve the right to make unannounced inspections of the facility during reasonable hours of operation.
2. Upon completion of the inspection, a report form will be signed and dated by both the ~~Customer~~ Certified Site Supervisor and the Program Inspector. The original shall be maintained by the Program with copies to the ~~Customer~~ Certified Site Supervisor, the City, the Water Utility and any required Rr~~e~~gulatory Aa~~g~~ency.
3. Should a Cross-Connection be discovered during any inspection by the Recycled Water Customer or an outside Inspector, the **Emergency Cross-Connection Response Plan** shall be immediately invoked by the ~~Customer~~ Certified Site Supervisor.

~~23.J~~22.J MODIFICATIONS

1. No modifications shall be made by the Recycled Water Customer to any Recycled Water system without the prior approval of the Program. This includes modifications to the approved plans, or to an operational system. Detailed plans of any modifications must be submitted to the Program and the modifications inspected by the Program before being completed.
2. Emergency modifications or repairs can be made by the Recycled Water Customer to the system without the prior approval of the Program to prevent contamination, damage or a Public health hazard. As soon as possible after the modification, but not to exceed three (3) days, the Recycled Water Customer must notify the Program of the emergency modifications and file a written report.

~~23.K~~22.K PERIODIC CROSS-CONNECTION TESTING

~~1.~~ At D~~d~~ual ~~-~~P~~p~~lumbed use sites (sites where the Recycled Water is used within a building in conjunction with a Potable Water system), the Recycled Water Customer shall be responsible for conducting a periodic Cross-Connection test as required in the Recycled Water Use ~~License~~ Permit unless visual inspections reveal a requirement for more frequent testing. Generally, the periodic Cross-Connection test for a D~~d~~ual ~~-P~~p~~l~~umbed use site is required once every four (4) years. This test shall be done by an AWWA-certified Cross-Connection specialist. The Program must be notified at least 48 hours in advance of the test so that a Program representative can be present. The ~~Customer~~ Certified Site Supervisor must be present at the test. A sample Test Notification Form is located in ~~*Sample*~~ *22.P Forms.* The following are general guidelines for periodic cross-testing and may be modified with the approval of the Program~~.~~

~~2. **Periodic Cross-Connection Test Procedures** Cross-connection tests shall be performed as specified in the UPC Appendix J 8 (2) and J 8 (3), with the exception that intermittent piping will not be activated and pressurized as specified in Appendix J 8 (2)(vi), and that the required pressurization time will be one (1) hour or as otherwise specified by the Cross-Connection specialist.~~

~~23.L~~22.L SYSTEM NOT IN COMPLIANCE

If at any time the Recycled Water system is found to be out of compliance, the Program shall issue an Order specifying the corrections required to bring the system into compliance. A site inspection shall be scheduled after a reasonable period of time to ensure compliance with the Order. If it is known or suspected that a Backflow incident or contamination has occurred, then the *Emergency Cross-Connection Response Plan* shall be invoked.

~~23.M~~22.M NOTIFICATION

It is the responsibility of the ~~Customer~~Certified Site ~~-~~ Supervisor to notify the Program of any failure or Cross-Connection in said Recycled Water or P~~p~~otable W~~w~~ater system, whether or not they~~he/she~~ believe~~s~~ a Violation has occurred. It is also the responsibility of the ~~Customer~~ Certified Site Supervisor to notify the Program of any V~~v~~iolation that might occur because of any action the Recycled Water Customer personnel might take during the operation of said Recycled Water or Potable Water systems. If there are any doubts whether a Violation has occurred, it is the responsibility of the ~~Customer~~ Certified Site Supervisor to report each occurrence to the Program so a decision can be made.

~~23.N~~22.N EMERGENCY PROCEDURE

1. In case of a major earthquake, flood, fire, tornado, structural failure, or other incident which could likely damage the Recycled or Potable Water systems, the ~~Customer~~ Certified Site Supervisor should inspect the domestic and Recycled Water systems for damage, as soon as~~,~~ it is safe to do so. If either system appears damaged, the domestic or Recycled Water system with damage should be shut off at their Point~~s~~ of Connection. If the ~~Customer~~ Certified Site Supervisor cannot inspect the site and damage is expected, then both water systems should be shut off at their P~~p~~oints of C~~c~~onnection. The Supervisor should immediately contact the Program for further instruction.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

2. **Emergency Modifications.** Emergency modifications or repairs ~~can~~ may be made by the Recycled Water Customer to said system without the prior approval of the Program to prevent contamination, damage or a Public health hazard. As soon as possible after the modification, but not more than three (3) days after the modification, the Recycled Water Customer shall notify the Program of the emergency modifications and file a written description of action taken.
3. **Unauthorized Discharge.** It is the responsibility of the Recycled Water Customer to report to the City all system failures that result in an U~~u~~nauthorized D~~d~~ischarge of Recycled Water. An immediate oral report is required at which time the City will specify if a written report is required. The Recycled Water Customer must make every effort to contain the U~~u~~nauthorized D~~d~~ischarge prior to discharge to the storm drains. Contact the Program for field review and disposal instructions.
4. **Contamination of Drinking Water.** In case of contamination of the Potable Water system due to a Cross-Connection on the Recycled Water Customer's Premises, the Program and State ~~DHS~~ DDW shall be immediately notified by the Recycled Water Customer. The Recycled Water Customer is to immediately invoke the *Emergency Cross-Connection Response Plan*.

~~23.O~~22.O EMERGENCY CROSS-CONNECTION RESPONSE PLAN

In the event that a Backflow incident or Cross-Connection is suspected or occurs, the following procedures shall be implemented immediately.

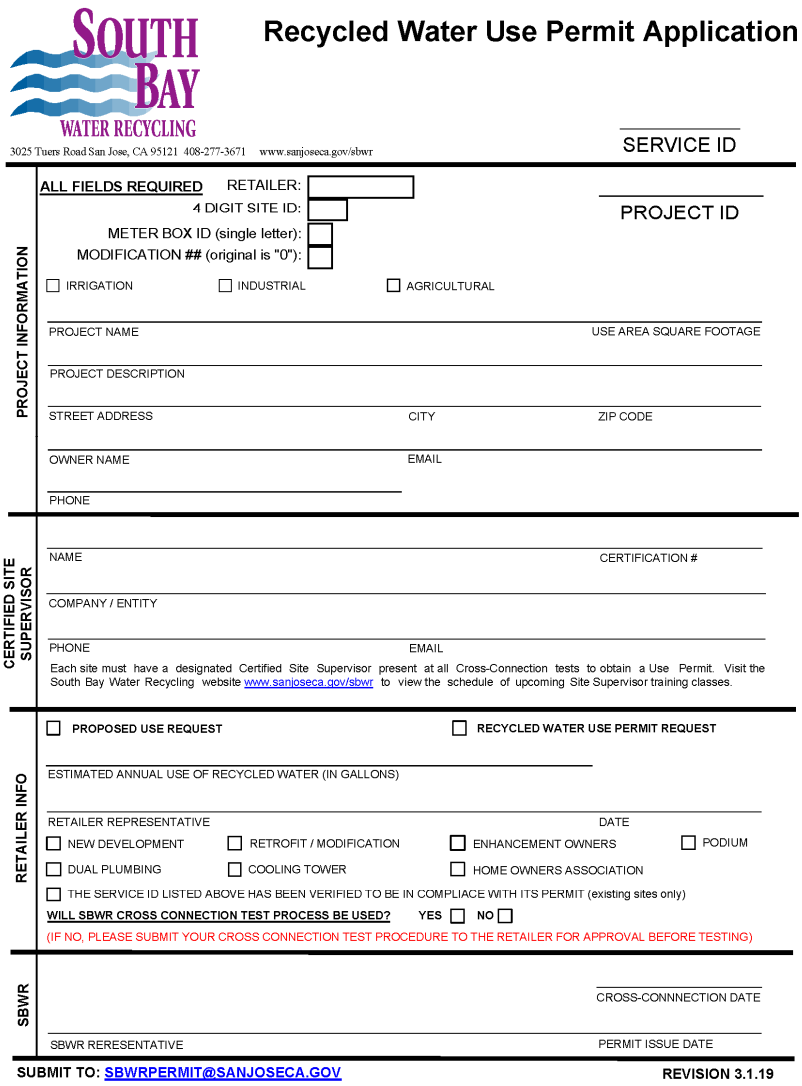
1. Notify the Water Utility and the State ~~DHS~~ DDW by phone. This notification is to be followed by written notice within 24 hours. The written notice is to include an explanation of the nature of the Cross-Connection, date and time discovered, and the steps taken to mitigate the Cross-Connection(s).
2. Keep the Potable Water system pressurized and post "Do Not Drink" signs at all Potable Water fixtures and outlets.
3. Immediately shut down the Recycled Water supply to the facility at the meter.
4. Provide bottled water for employees until the Potable Water system is deemed safe to drink.
5. Collect water samples from the Potable Water system and perform a 24-hour bacteriological analysis. Water samples should be collected from the closest acceptable point to the Cross-Connection. The Water Utility may supply the appropriate sample bottles, obtain the samples, and arrange for laboratory analysis. See the *Water Utility Supplementary Guidelines* for additional information.
6. Identify the cause and location of Backflow and eliminate the Cross-Connection(s).
7. Conduct a Cross-Connection test as outlined in Section ~~22~~21.E-K to verify that all Cross-Connections were eliminated.
8. Obtain approval from the Program and the State ~~DHS~~ DDW before bringing the Recycled Water system back into service.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

9. If the bacteriological analysis conducted in Step 5 is positive, chlorinate the Potable Water system maintaining a chlorine residual of at least 50 mg/l for 24 hours. Otherwise proceed to Step 11.
10. Flush the Potable Water system after 24 hours and perform S~~s~~tandard bacteriological analysis.
11. If the results from Step 10 are acceptable, proceed to Step 12. Otherwise, repeat Steps 9-10.
12. Obtain final approval from the Program and the State ~~DHS~~ DDW before removing signs.

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~LOCAL CONTACTS~~22.P FORMS



SOUTH BAY WATER RECYCLING

3025 Tuers Road San Jose, CA 95121 408-277-3671 www.sanjoseca.gov/sbwr

Recycled Water Use Permit Application

SERVICE ID

PROJECT ID

PROJECT INFORMATION

ALL FIELDS REQUIRED RETAILER:

4 DIGIT SITE ID:

METER BOX ID (single letter):

MODIFICATION ## (original is "0"):

☐ IRRIGATION ☐ INDUSTRIAL ☐ AGRICULTURAL

PROJECT NAME USE AREA SQUARE FOOTAGE

PROJECT DESCRIPTION

STREET ADDRESS CITY ZIP CODE

OWNER NAME EMAIL

PHONE

CERTIFIED SITE SUPERVISOR

NAME CERTIFICATION #

COMPANY / ENTITY

PHONE EMAIL

Each site must have a designated Certified Site Supervisor present at all Cross-Connection tests to obtain a Use Permit. Visit the South Bay Water Recycling website www.sanjoseca.gov/sbwr to view the schedule of upcoming Site Supervisor training classes.

RETAILER INFO

☐ **PROPOSED USE REQUEST** ☐ **RECYCLED WATER USE PERMIT REQUEST**

ESTIMATED ANNUAL USE OF RECYCLED WATER (IN GALLONS)

RETAILER REPRESENTATIVE DATE

☐ NEW DEVELOPMENT ☐ RETROFIT / MODIFICATION ☐ ENHANCEMENT OWNERS ☐ PODIUM

☐ DUAL PLUMBING ☐ COOLING TOWER ☐ HOME OWNERS ASSOCIATION

☐ THE SERVICE ID LISTED ABOVE HAS BEEN VERIFIED TO BE IN COMPLIACE WITH ITS PERMIT (existing sites only)

WILL SBWR CROSS CONNECTION TEST PROCESS BE USED? YES ☐ NO ☐

(IF NO, PLEASE SUBMIT YOUR CROSS CONNECTION TEST PROCEDURE TO THE RETAILER FOR APPROVAL BEFORE TESTING)

SBWR

CROSS-CONNNECTION DATE

SBWR RERESENTATIVE PERMIT ISSUE DATE

SUBMIT TO: SBWRPERMIT@SANJOSECA.GOV **REVISION 3.1.19**

~~***Site:***~~

~~***Location:***~~

~~***Customer Supervisor:***~~

~~***Work Phone:***~~

~~***Title:***~~

~~***Home Phone:***~~

LOCAL CONTACTS	
Site:	
Location:	
Certified Site Supervisor:	
Title:	
Email:	
Work Phone:	Mobile Phone:

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~CROSS-CONNECTION TEST NOTIFICATION FORM~~
~~(Sent by the Program)~~

~~Test Date:~~

~~Test Time:~~

~~Site Name:~~

~~Site Address:~~

~~CITY OF SANTA CLARA WATER UTILITY~~

~~Contact Person:~~

~~Phone:~~

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~Agencies Notified: California Department of Health Services, Drinking Water Field Operations Branch Monterey District~~

SOUTH BAY WATER RECYCLING
3025 Tuers Road San Jose, CA 95121 408-277-3671 www.sanjoseca.gov/sbwr

Recycled Water Cross Connection Test

XXX ##### X
SERVICE ID

PROPERTY SITE INFORMATION

METER BOX LOCATION side of of

SITE NAME | STREET | FEET | STREET

ADDRESS | CITY | ZIP | METER ADDRESS (IF APPLICABLE)

DESCRIPTION

REQUIRED ATTENDEES

SBWR REPRESENTATIVE | COMPANY/ENTITY | PHONE

RETAILER REPRESENTATIVE | COMPANY/ENTITY | PHONE

CERTIFIED SITE SUPERVISOR (CSS) | COMPANY/ENTITY | CERT # | PHONE

CROSS CONNECTION SPECIALIST

_____ AWWA CROSS CONNECTION SPECIALIST #: _____,
CROSS CONNECTION SPECIALIST NAME | CERTIFICATION #

After carefully reviewing this recycled water system, and performing a Cross-Connection test in accordance with SBWR's Rules and Regulations, I find no indication of a cross-connection with this recycled water system, at the property site listed above.

THE CROSS-CONNECTION TEST WAS CONDUCTED ON _____
DATE (s) | TIME

CROSS CONNECTION SPECIALIST NAME | DATE

COMPANY | PHONE

ADDRESS | CITY | ZIP CODE

TEST DETAILS

DESCRIBE THE TESTING PROCEDURE USED, THE DOCUMENTS SUPPLIED BY THE RETAILER AND CSS, THE RECYCLED WATER SYSTEMS TESTED, AND WHICH PROJECTS WERE INCLUDED.

☐ VISUAL TEST ONLY

RETAILER

RETAILER APPROVAL | DATE

SUBMIT TO: SBWRPERMIT@SANJOSECA.GOV **REVISION: 3.1.19**

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~CROSS-CONNECTION NOTIFICATION RSVP FORM~~
~~(Returned by Customer)~~

~~Site Address:~~

~~Test Date:~~

~~Agency/Company:~~

~~Representatives Attending:~~

~~(Please return to requesting party within 48 hours prior to scheduled test)~~

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~ANNUAL SELF-INSPECTION REPORT~~

~~Standard On-Site (Land) Observation Report~~

~~OR~~

~~Off-Season Inspection Report~~

~~Site:~~
~~Date:~~
~~Inspected by:~~
~~Title:~~
~~==========~~
~~1. Is there evidence of runoff of recycled water from the site? Show affected area on a sketch and estimate volume:~~
~~2. Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors.~~
~~3. Is there evidence of ponding of recycled water, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?~~
~~4. Are warning signs, tags, stickers, and above ground pipe markings properly posted to inform the public that irrigation is recycled water, which is not suitable for drinking?~~
~~5. Is there evidence of leaks or breaks in the irrigation system piping or tubing?~~
~~6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers?~~
~~7. What corrective actions are being taken to correct any problems noted above?~~

~~Signed: _____~~

~~Dated: _____~~

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

SOUTH BAY WATER RECYCLING

3025 Tuers Road San Jose, CA 95121 408-277-3671 www.sanjoseca.gov/sbwr

Recycled Water Inspection Checklist: Construction

☐☐☐P☐
XXX ##### X MOD#
PROJECT ID

USE CLASS

☐ IRRIGATION ☐ INDUSTRIAL ☐ AGRICULTURAL

SITE LOCATION & SITE SUPERVISOR

SITE NAME

SITE ADDRESS CITY ZIP

CERTIFIED SITE SUPERVISOR (CSS) CERTIFICATION #

CSS PHONE CSS EMAIL

INSPECTION TASKS

		DATE (VERIFIED/COMPLETED)	INITIALS
1)	DDW APPROVED PLANS / ENGINEERING REPORT SIGNATURE		
2)	HORIZONTAL AND VERTICAL SEPARATION MATCH THE DDW APPROVED PLANS		
3)	ADVISORY SIGNS, TAGS AND LABELING MATCH THE DDW APPROVED PLANS		
4)	CROSS CONNECTION TEST PASSED		
5)	RETAILER NOTIFIED OF ANY ON SITE POTABLE WATER METERS		
6)	REMOVAL OF ALL TEMPORARY AND / OR PERMANENT POTABLE WATER CONNECTIONS TO RECYCLED WATER SYSTEMS		
7)	METER (S) INSTALLED Serial Number (s) _____ METER 1 # _____ METER 2 #		
8)	ON SITE SYSTEM CONNECTED TO RECYCLED WATER METER SEPARATION HAS BEEN MAINTAINED BETWEEN THE RECYCLED AND POTABLE WATER SYSTEMS		
9)	IF A RECYCLED WATER COOLING TOWER IS PRESENT, FILL OUT THE INSPECTION CHECKLIST FOR COOLING TOWERS		
10)	DOES THE RECYCLED WATER SYSTEM BUILT EXACTLY MATCH THE DDW APPROVED PLANS? ☐ YES ☐ NO IF NOT, SHOW THE DIFFERENCES ON THE RECORD DRAWINGS AND EXPLAIN THEM BELOW		

COMMENTS:

INSPECTOR NAME DATE

RETAILER / SBWR AGENT REPRESENTATIVE DATE

SUBMIT TO: SBWRPERMIT@SANJOSECA.GOV **REVISION: 3.1.19**

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~RECYCLED WATER USE LICENSE -CUSTOMER APPLICATION~~

~~Today's Date:~~			
~~Tract No./APN:~~			
~~Facility Name:~~			
~~Location or Brief Legal Description:~~			
~~Mailing Address:~~			
~~Type of Development:~~			
~~Expected date to commence recycled Water Service (Month/Year)~~			
~~Owner:~~		~~Proposed Customer Supervisor:~~	
~~Address:~~		~~Address:~~	
~~City:~~		~~City:~~	
~~State:~~	~~Zip:~~	~~State:~~	~~Zip:~~
~~Phone: ( )~~		~~Work Phone ( )~~	
~~Contact:~~		~~Home Phone ( )~~	
		~~Alternate:~~	
~~Estimated Water~~	~~Acres~~	~~Average (AF/YR)~~	~~Peak Demand (GPM)~~
~~Landscape Irrigation:~~			
~~Park:~~			
~~Open Space:~~			
~~School:~~			
~~Industrial Use:~~			
~~Athletic Field:~~			
~~Brief description of use(s):~~			
~~Brief description of proposed Customer Supervisor's current responsibilities and familiarity with~~			

~~This is a new retrofitted system.~~
~~For retrofitted systems: Water Utility: CITY OF SANTA CLARA~~
~~Account Number: _____~~
~~On-Site pumping is not required.~~

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

~~Is the potable system designed to operate as back up: Yes No~~

~~23~~22. OPERATION AND MAINTENANCE OF SYSTEMS FOR USE OF RECYCLED WATER (Continued)

SOUTH BAY WATER RECYCLING

3025 Tuers Road San Jose, CA 95121 408-277-3671 www.sanjoseca.gov/sbwr

Recycled Water Inspection Checklist: Cooling Tower

			P	
XXX	#####	X	MOD#	

PROJECT ID

USE CLASS

INDUSTRIAL

SITE LOCATION & SITE SUPERVISOR

SITE NAME

SITE ADDRESS CITY ZIP

CERTIFIED SITE SUPERVISOR (CSS) CERTIFICATION #

CSS PHONE CSS EMAIL

INSPECTION TASKS

		DATE (VERIFIED/COMPLETED)	INITIALS
1)	DDW APPROVED PLANS / ENGINEERING REPORT SIGNATURE		
2)	BIOCIDE USED PER ENGINEERING REPORT		
3)	DRIFT ELIMINATOR IS INSTALLED PER PLAN		
4)	POTABLE WATER SUPPLY (IF PRESENT) HAS AN AIR GAP PER PLAN		
5)	RECYCLED WATER SUPPLY HAS AN AIR GAP PER PLAN		
6)	COOLING TOWER MODEL NUMBER MATCHES THE ENGINEERING REPORT		
7)	PROVIDE COOLING TOWER MANUFACTURER'S NAMEPLATE INFO (SERIAL NUMBER, MANUFACTURING DATE, ETC):		

COMMENTS:

INSPECTOR NAME DATE

RETAILER / SBWR AGENT REPRESENTATIVE DATE

SUBMIT TO: SBWRPERMIT@SANJOSECA.GOV **REVISION: 3.1.19**

~~24~~23. WATER ~~CONSERVATION IN LANDSCAPING~~EFFICIENT LANDSCAPE ORDINANCE

~~24~~23.APURPOSE

Upon the effective date of the revision of the State of California's Model Water Efficient Landscape Ordinance (MWELO), it will supersede the regulations in this Chapter 23, Water Efficient Landscape Ordinance.

Upon the City's adoption of a separate Santa Clara Water Efficient Landscape Ordinance, this Chapter 23, Water Efficient Landscape Ordinance, is rendered null and void.

1. The purpose of these Rules and Regulations is to promote efficient water use in landscaping by promoting use of region-appropriate plants that require minimal supplemental irrigation, and by establishing S~~s~~tandards for i~~I~~rrigation ~~e~~Efficiency.
2. These Rules and Regulations establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in New Construction and rehabilitated projects by encouraging the use of a watershed approach that requires cross-sector collaboration of industry, government and property Owners to achieve the many benefits possible.
3. These Rules and Regulations establish provisions for water management practices and water waste prevention for existing landscapes.
4. Efficient water use without waste shall be achieved by setting a Maximum Applied Water Allowance as an upper limit for water use and reducing water use to the lowest practical amount. Irrigation efficiencies are accomplished through proper landscape design, installation and management techniques appropriate to Santa Clara's growing conditions.
5. Landscapes planned, installed, managed and maintained in accordance with these Rules and Regulations will improve conditions in urban Santa Clara by:
   (a) Enhancing soil tilth;
   (b) Minimizing energy use;
   (c) Conserving water wherever possible
   (d) Protecting air quality
   (e) Protecting existing habitat and creating new habitat through the use of Native Plants and climate appropriate plants wherever possible.
6. These Rules and Regulations implement the California Water Conservation in Landscaping Act, Government Code Section 65591 et. seq.

~~24~~23.BAPPLICABILITY

~~24.B.~~1. ~~Except as provided in Subsection 24.B.2. below, t~~These Rules and Regulations shall apply to the following Landscape Projects:

~~24.B.1.~~(a) New construction projects with an aggregate ~~l~~Landscape ~~a~~Area equal to or greater than 500 square feet requiring a ~~building or landscape p~~Permit, plan check, or design review

~~24.B.1.~~(b) Rehabilitated ~~l~~Landscape ~~p~~projects with an aggregate ~~l~~Landscape ~~a~~area equal to or greater than 2,500 square feet requiring a ~~building or landscape p~~Permit, plan check, or design review.

~~24.B.1.~~(c) Existing landscapes limited to Sections 493, 493.1, 493.2 in Division 2, Title 23 of the California Code of Regulations; ~~all other existing landscapes shall only be subject to the provisions for existing landscapes provided for and~~ in sections ~~24.O~~23.V and 23.W of these Rules and Regulations.

~~24.B.1.~~(~~c~~d) Cemetaries. Recognizing the special landscape needs of cemeteries, ~~N~~new and rehabilitated cemeteries, are limited to sections ~~24.I, 24.L, and 24.O~~ 23.V and 23.W of these Rules and Regulations.

~~24.B.~~2. Any project with an aggregate ~~l~~Landscape ~~a~~area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix D.

3. For projects using treated or untreated Graywater or rainwater captured on site, any lot or parcel within the project that has less than 2,500 square feet of landscape and meets the lot or parcel's landscape water requirement (ETWU) entirely with treated or untreated Graywater or through stored rainwater captured on site is subject only to Appendix D Section (5).

~~24.B.3~~4. These Rules and Regulations shall not apply to:

~~24.B.3.(a) New construction with irrigated landscape areas less than 500 square feet, rehabilitated landscapes with irrigated landscape areas less than 2,500 square feet, or landscapes that do not require a building or landscape permit, plan check or design review, or new or expanded water service;~~

~~24.B.3.(b) Landscapes, or portions of landscapes, that are only irrigated for an establishment period;~~

~~24.B.3.~~(~~c~~a) Registered local, state or federal historical sites;

~~24.B.3.~~(~~d~~b) Any Ecological Restoration Project that does not require a permanent irrigation system;

(c) Mine ~~r~~Reclamation ~~p~~projects that do not require a permanent irrigation system;

~~24.B.3.~~(~~e~~d) ~~Any ecological restoration project that does not require a permanent irrigation system;~~

~~24.B.3.(f)~~ Community gardens or plant collections, as part of botanical gardens and arboretums open to the public;

~~24.B.3.(g) Any commercial cultivation or agricultural products, including by not limited to products of farms, orchards, production nurseries and forests;~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.B.3.(h) Any project that uses, primarily, Recycled Water for irrigation purposes;~~

~~24~~23.CDEFINITIONS

T~~he t~~erms used in this Section of these Rules and Regulations have the meaning set forth below:

Applied Water: The portion of water supplied by the irrigation system to the landscape.

Automatic (Irrigation) Controller: An automatic mechanical or solid-state timing device, capable of remotely controlling Irrigation ~~v~~Valve S~~s~~tations that operate an irrigation system. Automatic I~~i~~rrigation C~~c~~ontrollers schedule irrigation events using E~~e~~vapotranspirtion or S~~s~~oil M~~m~~oisture data to set days and length of time of irrigation.

~~**Backflow Prevention Device:** A City-approved device that prevents pollution or contamination of the water supply due to the reserve flow of water into the City's water distribution system.~~

Certificate of Completion: The document required under ~~Section 492.9~~23.L

Certified Irrigation Designer: 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 WaterSense irrigation designer certification program, or the Irrigation Association's Certified Irrigation Designer program.

Certified Landscape Irrigation Auditor: A person certified to perform landscape I~~i~~rrigation A~~a~~udits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WasterSense I~~i~~rrigation A~~a~~uditor C~~c~~ertification P~~p~~rogram and Irrigation Association's Certified Landscape Irrigation Auditor Program.

~~**Certified Professional:** A certified irrigation designer, certified landscape irrigation auditor, licensed landscape architect, licensed landscape contractor, licensed professional engineer, or any other person authorized by the State of California to design a landscape, an irrigation system or authorized to complete a water budget.~~

Check Valve or Anti-Drain Valve: A valve located under a ~~sprinkler~~ Spray H~~h~~ead, or other location in the irrigation system, to hold water in the system to prevent drainage from ~~sprinkler~~ Spray H~~h~~eads when the ~~sprinkler~~ system is off.

Common Interest Developments: Community apartment projects, condominium projects, planned D~~d~~evelopments, and stock cooperatives per Civil Code Section ~~4000 et seq~~1351.

Compost: The safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

Conversion Factor (0.62): The~~A~~ number that converts the M~~m~~aximum ~~a~~Applied W~~w~~ater A~~a~~llowance from acre-inches per acre per year to gallons per square foot per year. ~~The conversion factor is calculated as follows:~~

~~(325,829 gallons/43,560 sq. ft./12 inches = 0.62)~~

~~325,829 gallons = 1 acre-foot~~

~~43,560 square feet = 1 acre~~

~~12 inches = 1 foot~~

~~To convert gallons per year to 100 cubic feet per year, the City's billing unit for water, divide gallons per year by 748 (748 gallons = 100 cubic feet).~~

Distribution Uniformity: The measure of the uniformity of irrigation water over a defined area.

~~**Drip Irrigation**: any non-spray low volume irrigation system utilizing emission devices with a flow rate measures 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.~~

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

Effective Precipitation (E~~ppt~~PPT) ~~or Usable Rainfall~~: The portion of total precipitation that is available for plants. Precipitation is not a reliable source of water but can contribute to some degree toward the water needs of the landscape. ~~For the purpose of this document, "effective precipitation" is twenty-five percent (25%) of local annual mean precipitation.~~

~~**Emitters**: Drip irrigation fittings that deliver water slowly from the system to the soil.~~

Established Landscape: The point at which plants in the landscape have developed roots into the soil adjacent to the root ball.

Establishment Period: The first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Native habitat mitigation areas and trees may need three to five years for establishment.

~~**Estimated Applied Water Use**: The portion of the Estimated Total Water Use that is derived from applied water. The Estimated Applied Water Use shall not exceed the Maximum Applied Water allowance. The Estimated Applied Water Use may be the sum of the water recommended through the irrigation schedule as referenced herein.~~

Estimated Total Water Use (ETWU): ~~-~~The annual total amount of water ~~estimated to be needed to keep the plants in the landscaped area healthy. It is based upon such factors as the local evapotranspiration (ET) rate, the size of the landscaped area, the types of plants, and the efficiency of the irrigation system, as described herein.~~used for the landscape as described in Section 23.G.

Evapotranspiration Adjustment Factor (ETAF): ~~-A~~The factor of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to R~~r~~eference E~~e~~vapotranspiration (ETo), adjusts for P~~p~~lant ~~f~~Factors and ~~i~~Irrigation ~~e~~Efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-R~~r~~ehabilitated L~~l~~andscapes is 0.8.

~~A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. The irrigation efficiency for the purpose of the ET Adjustment Factor is 0.71.~~

Evapotranspiration Rate (ET): A quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specific time.

~~**Flow Rate**: The rate at which water flows through the pipes, valves and emission devices. (gallons per minute, cubic feet per second, gallon per hour).~~

Flow Sensor: An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to F~~f~~low R~~r~~ate. Flow S~~s~~ensors must be connected to an A~~a~~utomatic I~~i~~rrigation C~~c~~ontroller, or flow monitor capable of receiving flow signals and operating M~~m~~aster V~~v~~alves. This combination F~~f~~low S~~s~~ensor/controller may also function as a ~~l~~Landscape W~~w~~ater M~~m~~eter or S~~s~~ubmeter.

Friable: 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.

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

~~**Graywater**: 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. Health and Safety Code Section 17922.12.~~

Hardscape: Any constructed feature in a landscape built of ~~concrete, stone, wood, or other such~~any P~~p~~ervious or ~~non-~~Impervious durable material. ~~Includes, but is not limited to, patios, walkways, and retaining walls.~~

High Water Use Plant: Any species classified as "high" water use by WUCOLS, having a regionally adjusted Plant Factor of 0.7 through 1.0, shall be categorically deemed a High Water Use Plant. The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area.

Hydrozone: A portion of the landscaped area having plants with similar water needs that are served by an Irrigation ~~v~~ Valve or set of ~~v~~Irrigation Valves with the same schedule. A Hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated Hydrozone.

~~**Infiltration Rate**: The rate of water entry into the soil expressed as a depth of water per unit of time (e.g. inches per hour).~~

Impervious: Any surface or material that does not allow the passage of water through the material and into the underlying soil.

Invasive Plant ~~s~~Species: Species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive S~~s~~pecies may be regulated by agricultural agencies as noxious species. ~~"Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a Regional District noxious weed control list.~~ Lists of I~~i~~nvasive P~~p~~lants are maintained at the California Invasive Plant Inventory and USDA invasive and N~~n~~oxious W~~w~~eeds database.

Irrigation Audit: An in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An Iirrigation Aaudit includes, but is not limited to: inspection, system tune-up, system test with Ddistribution Uuniformity or emission uniformity, reporting Oeverspray or Rrunoff 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 "Watersense" labeled auditing program

Irrigation Efficiency (IE): The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation Eefficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The ~~minimum irrigation efficiency~~IE for purposes of this ordinance ~~is~~ are 0.75 for Overhead Spray Devices and 0.81 for Drip Systems~~1~~. ~~Greater Irrigation Efficiency can be expected from well-designed and well-maintained systems.~~

Irrigation Survey: An evaluation of an irrigation system that is less detailed than an iIrrigation aAudit. An Iirrigation Ssurvey includes, but is not limited to: inspection, system test, and written recommendations to improve irrigation system performance ~~of the irrigation system~~.

Irrigation Valve: A device used to control the flow of water in the irrigation system.

Irrigation Water Use Analysis: An analysis of water use data based on meter readings and billing data.

Landscape Architect: A person who holds a license to practice landscape architecture in California as defined by the California Business and Professions Code, Section 5615.

Landscape Area: All of the planting areas, Turf areas and Water Features in a landscape subject to the Maximum Applied Water Allowance calculation. The Landscape Area does not include ~~The entire parcel less the building footprint,~~ footprints of buildings or structures, decks, driveways, sidewalks, gravel or stone walks, parking lots, ~~non-irrigated portions of the parking lot, hardscape such as decks and patios, and~~ other Ppervious or Imnonpervious Hhardscapes and~~.~~ ~~Water features are included in the calculation of the landscaped area. Areas dedicated to edible plants such as orchards or vegetable gardens are not included. Landscape area does not include~~ other non-irrigated areas designated for non-Ddevelopment (e.g., open spaces and existing wildland vegetation).

Landscape Contractor: A person licensed by the State of California to construct, maintain, repair, install, or subcontract the Ddevelopment of landscape systems.

Landscape Documentation Package: The documents required under Section 23.F.

Landscape Water Meter: 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.

~~**Landscape Irrigation Audit**: A process to perform site inspection, evaluate irrigation systems, and develop efficient irrigation schedules.~~

~~**Landscape Installation Report**: The report, per section 24.K of these rules and regulations, documenting the landscape installation assessment for new and rehabilitated landscape and irrigation system(s) have been installed.~~

~~**Landscape Project**: An undertaking of landscape design and installation on a particular area of land. A landscape project may be associated with an individual lot, a building project, or a multi-phased development. It may also be a larger, comprehensive landscape scheme that is not coupled with an individual building project.~~

Lateral Line: The water delivery pipeline that supplies water ~~from the water source to the valve or outlet~~to the Emitters or Spray Heads from the Irrigation Valve.

~~**Local Mean Precipitation**: The State Department of Water Resources' 20-year historical rainfall data.~~

~~**Local Water Purveyor**: Any entity, including a public agency, city, county, or private water company that provides retail water service~~

Low- Vv~~olume Irrigation: The application of irrigation water through a system of tubing or Ll~~ateral L~~lines and Ll~~ow-V~~volume Ee~~mitters~~ such as drip and bubblers. ~~Certain rotary emitters designed for highly efficient water distribution, and situated to irrigate low water use plants, may also be included in this definition at the discretion of the City.~~Low Volume Irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zones of plants.

Low Water Use Plant: ~~A plant species whose demonstrated water needs are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established.~~ Any species classified as ~~"very low water use" and~~ "low water use" by WUCOLS, having a regionally adjusted P~~p~~lant F~~f~~actor of 0.~~0~~1 through 0.3, shall be categorically deemed a L~~l~~ow W~~w~~ater U~~u~~se plant.

~~**Main Line**: The pressurized pipeline that delivers water from the water source to the valve or outlet.~~

Master ~~Shut-off~~ Valve: An automatic ~~v~~alve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed, water will not be supplied to the irrigation system. A M~~m~~aster V~~v~~alve will greatly reduce any water loss due to a leaky S~~s~~tation valve.

Maximum Applied Water Allowance (MAWA): ~~For design purposes, t~~The upper limit of annual A~~a~~pplied W~~w~~ater for the E~~e~~stablished Landscaped A~~a~~rea as specified in Section ~~24I~~23.G., Water ~~Budget Calculation~~Efficient Landscape Worksheet. It is based upon the area's reference E~~vapotranspiration rate~~T, the ET ~~A~~djustment ~~F~~actor, and the size of the landscaped area. The E~~stimated Applied T~~Water U~~se~~ shall not exceed the M~~aximum A~~pplied ~~W~~ater allowance~~A (gallons per year)~~. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with Recycled Water are subject to the MAWA with an ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)].

~~**Median**: Area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.~~

~~**Microclimate**: The climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.~~

Mine~~d~~ Reclamation Projects: Any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

Moderate Water Use Plant: Any species classified as "moderate" water use by WUCOLS, having a regionally adjusted Plant Factor of 0.4 through 0.6, shall be categorically deemed a Moderate Water Use Plant.

Mulch: Any organic material such as leaves, bark, chipped wood, straw, or ~~other~~ inorganic materials such as rocks, pebbles, gravel or decomposed granite left loose and applied to the soil surface to reduce evaporation, suppress~~ing~~ weeds, moderat~~e~~ing soil temperature and prevent~~ing~~ soil erosion.

Native Plant: A plant indigenous to a specific area of consideration. For the purposes of these Rules and Regulations division, the term will refer to plants indigenous to the costal ranges of Centeral and Northern California, and more specifically to such plants that are suited to the ecology of the present or historic natural community of the project's vicinity.

New Construction: For the purposes of this ordinance, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

Noxious Weeds: Any weed designated by the Weed ControlRegulations in the Weed Control Act and identified on a Regional District noxious weed control list. Lists of Noxious Weeds are maintained at the California Invasive Plant Inventory and USDA invasive and Noxious Weeds database.~~**Non-Residential Landscape**: 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 and multifamily homes where landscaping is managed by a homeowners association or other common interest development.~~

~~**No Water Using Plant**: A plant species with water needs that are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established.~~

Operating Pressure: The pressure at which a system of S~~s~~prinkler Heads is designed to operate, usually indicated at base of each ~~s~~Sprinkler Head.

~~**Overhead sprinkler irrigation system**: A system that delivers water through the air (e.g., spray heads and rotors).~~

Overspray: ~~The~~ Irrigation water which is delivered beyond the ~~landscape~~ target area~~, wetting pavements, walks, structures, or other non-landscaped areas~~.

Parkway: The area between a sidewalk and the curb or traffic lane. It may be planted or unplanted and with or without pedestrian egress **~~Permit~~**~~: An authorizing document issued by local agencies for new construction or rehabilitated landscapes.~~

Pervious: Any surface or material that allows the passage of water through the material and into the underlying soil.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

Plant Factor: A factor that, when multiplied by reference E~~vapotranspirat~~T~~i~~o~~n~~, estimates the amount of water ~~u~~needs~~e~~d by plants. ~~. For purposes of these Rules and Regulations, the average plant factor of very low water use plants is 0 to 0.1, the plant factor range for low water using plants ranges from 0.1 to 0.3; for average water using plants the range is 0.4 to 0.6, and for high water using plants the range is 0.7 to 1.0.~~ Plant Factors in these Rules and Regulations are ~~based on~~derived from the ~~Department of Water Resources 2000~~ publication "Water Use Classification of Landscape Species" (WUCOLS). Plant Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources.

Project Applicant: The individual or entity submitting a Landscape Documentation Package required under Section 23.F to request a P~~p~~ermit, plan check, or design review from the local agency. A P~~p~~roject A~~a~~pplicant may be the property O~~o~~wner or ~~his or her~~their designee.

~~**Precipitation Rate**: means the rate of application of water measured in inches per hour.~~

Rain Sens~~ing Device~~or: A ~~system~~ device which automatically shuts off the irrigation system when it rains.

~~**Record Drawing or As-Builts**: 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.~~

Recreational Areas: Areas excluding private, single family residential areas, designated for~~of~~ active play, ~~or~~ recreation, or public assembly in parks, ~~such as~~ sports fields, school yards, picnic grounds, amphitheaters or golf course tees, fairways, roughs surrounds and greens~~or other areas with intense foot traffic~~.

~~**Recycled Water or Reclaimed Water**: Treated or recycled wastewater of a quality suitable for non-potable uses, such as landscape irrigation and water features; not intended for human consumption.~~

Reference Evapotranspiration ~~or (~~ETo~~)~~: A standard measurement of environmental parameters, which affect the water use of plants. ETo is given in inches per day, month, or year ~~(~~as represented ~~in Section 24.I Water Budget Calculation)~~Appendix A and is an estimate of the E~~vapotranspirati~~T~~o~~n of a large field of four to seven inch (4-7") tall, cool-season grass that is well watered. Reference E~~vapotranspirati~~T~~o~~n is the M~~aximum A~~pplied W~~ater A~~llowance so that regional differences in climate can be accommodated.

Regional Water Efficient Landscape Ordinance: A local Ordinance adopted by two or more local agencies, water suppliers and other stakeholders for implementing a consistent set of landscape provisions throughout a geographical region. Regional ordinances are strongly encouraged to provide a consistent framework for the landscape industry and Project A~~a~~pplicants to adhere to.

Rehabilitated Landscape: Any re-landscaping project that requires a P~~p~~ermit, plan check or design review, meets the requirements of Section 23.B. and the modified Landscape Area is equal to or greater than 2,500 square feet.

Residential Landscape: Landscapes surrounding single family homes or multifamily homes where landscapes are managed by individual homeowners.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~**Runoff**: Water that is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a severe slope.~~

Soil Moisture Sens~~ing Device~~or: A device that measures the amount of water in the soil. The device may also initiate or suspend irrigation.

Soil Texture: The classification of soil based on the percentage of sand, silt, and clay in the soil.

Special Landscape Area (SLA): An area of the landscape dedicated solely to edible plants, Recreational Areas, areas irrigated with ~~r~~Recycled W~~w~~ater and, W~~w~~ater F~~f~~eatures using R~~r~~ecycled W~~w~~ater ~~and areas dedicated to active play or high volume foot traffic such as parks, cemeteries, sports fields, golf courses, and where turf provides a playing surface~~.

~~**Sprinkler Head or Spray Head**: A device which delivers water through a nozzle.~~

Static Water Pressure: The pipeline or municipal water supply pressure when water is not flowing.

Station: An area served by one Irrigation ~~v~~Valve or by a set of Irrigation ~~v~~Valves that operate simultaneously.

~~**Swimming Pool**: Any structure intended for swimming, recreational bathing or wading that contains water over 24 inches (610 mm) deep. This includes in-ground, above-ground, and on-ground pools; hot tubs; spa and fixed-in-place wading pools~~

~~**Submeter**: A metering device to measure water applied to the landscape that is installed after the primary utility water meter.~~

~~**Turf**: A ground cover surface of mowed grass. Some examples of turf include annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.~~

~~**Valve**: A device used to control the flow of water in the irrigation system.~~

~~**Water Conserving Plant Species**: A plant species identified as having a very low or low plant factor.~~

~~**Water Feature**: 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.~~

~~**Watering Window**: The Time of day irrigation is allowed.~~

~~**Wet Surface Area**: The surface area of that portion of a water feature that functions to contain water, such as the water surface of a swimming pool, spa or garden pond. For a fountain or other feature with flowing water, wet surface area shall be measured as a two dimensional plane bounded by the perimeter of the area where water has been designed to flow.~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

Stormwater: Rainfall Runoff, snow melt Runoff, surface Runoff, drainage from natural sources; excludes infiltration.

Very Low Water Use Plant: Any species classified as "very low" water use by WUCOLS having a regionally adjusted Plant Factor of <0.1 shall be categorically deemed a Very Low Water Use Plant.

WUCOLS: The ~~current version of the~~ Water Use Classification of Landscape Species ~~current edition~~ published by the University of California Cooperative Extension and the Department of Water Resources, 2014 available at:

~~http://ucanr.edu/sites/WUCOLS/Download_WUCOLS_IV_List/~~https://ccuh.ucdavis.edu/wucols

23.D COMPLIANCE WITH LANDSCAPE DOCUMENTATION PACKAGE

~~**24.D WATER-EFFICIENT DESIGN CHECKLIST**~~

~~24.D.1 A water-efficient design checklist shall serve as a preliminary summation of select landscape components to determine whether a proposed landscape is generally consistent with the water efficiency goals of these rules and regulations.~~

~~24.D.1.(a)~~1. All Landscape Projects identified in Santa Clara City Code Section 18.88, Landscaping Permit, shall include a completed Landscape Documentation Package. ~~Landscape~~ Permit Fee is required when submitting a ~~Landscape~~ Permit. Prior to construction, the Community Development Planning Department shall:

(a) provide the Project Applicant with the Landscape Project ~~Application and Documentation~~ Package requirements and procedures for Permits, plan checks of design reviews;

(b) review the Landscape ~~Project Application~~ Documentation Package submitted by the Project Applicant;

(c) approve or deny the Landscape Documentation Package ~~project applicant's Landscape Project Application submittal~~;

(d) issue a Permit or approve the plan check or design review that complies with the approved Landscape ~~Project Application~~ Documentation Package and;

(e) upon approval of the Landscape ~~Project Application~~ Documentation Package, submit a copy of the Water Efficient Landscape Worksheet to Water and Sewer Utilities.

2. Prior to construction, the Project Applicant shall:

(a) submit all portions of the Landscape ~~Project Application~~ Documentation Package to the Community Development Department; ~~except the Landscape Audit Report~~

(b) pay the Landscape Project review fee as required by the schedule of fees established by resolution of the City Council.

3. Upon approval of the Landscape Documentation Package by the Community Development Department, the Project Applicant shall:

   (a) receive a Permit of approval of the plan check or design review and record the date of the Permit in the Certificate of Completion.

   (b) submit a copy of the approved Landscape Documentation Package along with the Record Drawings, and any other information to the property Owner or their designee; and

   (c) submit a copy of the Water Efficient Landscape Worksheet to Water & Sewer Utilities.~~water efficient design checklist. Building permits for new dwellings shall also include a completed water efficient design checklist.~~

~~24.D.1.(b) The checklist shall be completed by a property owner or certified landscape professional, and shall be submitted to the Planning Division along with the associated Planning Application.~~

23.E PENALTIES

Non-compliance with any applicable provision of the Water Service and Use Rules and Regulations shall constitute a violation of the City Code and shall be subject to enforcement action and/or Permit revocation.

~~24.E~~23.F COMPONENTS OF ~~A~~ THE LANDSCAPE ~~PROJECT SUBMITTAL~~DOCUMENTATION PACKAGE

~~24.E.~~1. The Landscape ~~project submittal consists of~~Documentation Package shall contain the following six (6) items.

~~24.E.1.~~(a) ~~Water Efficient Design Checklist (section 24.D)~~Project information:~~.~~

(i) date

(ii) Project Applicant ~~name~~

(iii) project address (if available, parcel and/or lot number(s))

(iv) total Landscape Area ~~in~~ (square feet)

(v) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed) water supply type (e.g., potable, recycled, well) and the City as the Local Retail Water Purveyor if the Project Applicant is not served by a private well

(vi) checklist of all documents in Landscape Documentation Package (Appendix E)

(vii) project contacts including contact information for the Project Applicant and property Owner

(viii) Project Applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(b) Water Efficient Landscape Worksheet

(i) Hydrozone information table

(ii) water budget calculations

(1) Maximum Applied Water Allowance (MAWA)

(2) Estimated Total Water Use (ETWU)

~~24.E.1.(b) Landscape and Irrigation Design Plans which are required for landscape projects greater than 500 square feet (see section 24.H).~~

~~24.E.1.(c) Landscape and Irrigation Maintenance Schedule (section 24.L).~~

~~24.E.1.(d) Landscape Installation Report (section 24.K). Shall be submitted following installation of landscaping materials and irrigation hardware.~~

~~24.E.1.(e) Water Budget Calculations (Section 24.I). Not required if plant type restriction option (section 24.F.1.(a)) is utilized.~~

~~24.E.1.(c~~f) Soil ~~Analysis~~ Management Report (S~~s~~ection 23.H~~4.J~~); ~~Only required when requested by City as a condition of permit approval.~~

~~24.E.1.(d~~g) Landscape ~~Audit Report~~Design Plan (Section 24.~~O~~3.I);

(e) Irrigation Design Plan (Section 23.J); and

~~24.E.1.(f~~h) Grading Design Plan

~~24.E.2 The City shall:~~

~~24.E.2.(a) Provide the project applicant with the Landscape Project Application and Documentation Package requirements~~

~~24.E.2.(b) Provide procedures for permits, plan checks, design reviews, or new or expanded water service;~~

~~24.E.2.(c) Issue or approve a permit, plan check or design review that complies with the approved Landscape Project Application or approve a new or expanded water service application that complies with the approved Landscape Project Application;~~

~~24.E.3 The Project Applicant shall:~~

~~24.E.3.(a) Prior to construction, submit all portions of the Landscape Project Application, except the Landscape Audit Report~~

~~24.E.3(b) (1) receive a permit or approval of the plan check or design review and record the date of the permit in the Certificate of Completion; and (2); along with the record drawings, and other information to the property owner or his/her designee~~

~~**24.F DEMONSTRATION OF LANDSCAPE WATER EFFICIENCY**~~

~~24.F.1 Applicants of projects subject to these rules and regulations may choose one of the following two options to demonstrate that a landscape proposal meets water efficiency goals.~~

~~24.F.1.(a) Plant Type restriction option: The plan, checklist and any accompanying documentation must demonstrate all of the following as a means of achieving water efficiency.~~

~~24.F.1.(a)(i) The total turf area shall not exceed 25% of the landscape area, or 1,250 square feet, whichever is lesser in area.~~

~~24.F.1.(a)(ii) Turf or high water using plants are prohibited outside of the allowed turf area.~~

~~24.F.1.(a)(iii) Within non-turf areas, at least 80% of the plants shall be native, low water-using or no-water using.~~

~~24.F.1.(a)(iv) All other applicable design criteria of Section 24.G, Water-Efficient Design Elements, shall be met.~~

~~24.F.1.(b) Water Budget option: Project applicants may elect to prepare a water budget calculation, per the provisions of Section 24.I, Water Efficient Design Checklist, as a means of demonstrating water efficiency.~~

23.G WATER EFFICIENT LANDSCAPE WORKSHEET

1. A Project Applicant shall complete the Water Efficient Landscape Worksheet in Appendix B which contains information on the Plant Factor, irrigation method, IE, and area associated with each Hydrozone. Calculations are then made to show that the ETAF for the Landscape Project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of Special Landscape Areas. The ETAF for a Landscape Project is based on the Plant Factors and irrigation methods selected. The MAWA is calculated based on the maximum ETAF allowed (0.55 for residential areas and 0.45 for non-residential areas) and expressed as annual gallons required. The ETWU is calculated based on the plants used and irrigation method selected for the landscape design. ETWU must be below the MAWA.
   (a) In calculating the MAWA and ETWU, a Project Applicant shall use the ETo values from the Reference ETo Table in Appendix A.
2. Water budget calculations shall adhere to the following requirements:
   (a) The Plant Factor shall be from WUCOLS or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR).
   (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) All Special Landscape Areas shall be identified and their water use calculated as shown in Appendix B.
   (d) ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

23.H SOIL MANGEMENT REPORT

1. In order to reduce Runoff and encourage healthy plant growth, a soil management report shall be completed by the Project Applicant, or their designee, as follows:
   - (a) Soil samples shall be submitted to a laboratory for analysis and recommendations.
     - (i) Sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
     - (ii) A soil analysis report shall include:
       - (1) Soil Texture
       - (2) Infiltration Rate determined by laboratory test or Soil Texture Infiltration Rate table
       - (3) pH
       - (4) total soluble salts
       - (5) sodium
       - (6) percent organic matter
       - (7) recommendations.
     - (iii) In projects with multiple landscape installations (i.e. production home Developments) a soil sampling rate of 1 in 7 lots or approximately 15% will satisfy this requirement. Large Landscape Projects shall sample at a rate equivalent to 1 in 7 lots.
2. The Project Applicant or ~~his/her~~their designee shall comply with one of the following:
   - (a) If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or
   - (b) If significant mass grading is planned, the soil analysis report shall be submitted to the Community Development Building Department as part of the Certificate of Completion.
3. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.
4. The P~~p~~roject A~~a~~pplicant, or ~~his/her~~their designee, shall submit documentation verifying implementation of soil analysis report recommendations to the Community Development Building Department with the Certificate of Completion.

23.I~~24.G~~ ~~WATER EFFICIENT~~LANDSCAPE DESIGN ~~ELEMENTS~~PLAN

~~24.G.~~1. ~~The elements of a~~A Llandscape Ppproject shall be designed to achieve water efficiency consistent with the intent of these Rules and Regulations. A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

~~24.G.1.(a)~~ (a) Plant Material:

~~24.G.1.(a)~~(i) 10~~8~~0% of the plants in non-Turf Landscape Areas shall be very ~~native plants~~ low, low or moderate water using plants, or Native Plants, unless the Project Applicant develops a water budget and the ETWU of the landscaped area does not exceed the MAWA. Methods to achieve water efficiency shall include one or more of the following:

1. protection and preservation of native species and natural vegetation;

2. selection of water-conserving plant, tree and T~~t~~urf species, especially local N~~n~~ative P~~p~~lants;

3. selection of plants based on local climate suitability, disease, and pest resistance;

4. selection of trees based on applicable local tree ordinances or tree shading guidelines; size at maturity as appropriate for the planting area; ~~and~~

5. selection of plants from local and regional landscape program lists;

6. and selection of plants from local Fuel Modification Plan Guidelines.

~~-~~(ii) Plants with similar water needs shall be grouped within H~~h~~ydrozones with the exception of Hydrozones with plants of mixed water use, as specified in Section 23.J.1(b)(iv).

(iii) Plants shall be chosen and arranged appropriately based upon the site's climate, soil characteristics, sun exposure, wildfire susceptibility and topographical conditions ~~and other factors.~~ Methods to achieve water efficiency shall include one or more of the following:

1. use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;

2. recognize the horticultural attributes of plants to minimize damage to property or infrastructure, allow for adequate soil volume for healthy root growth; and

3. consider the solar orientation for plant placement to maximize summer share and winter solar gain.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(iv) Turf shall not:

~~24.G.1.(a)(ii)~~1. be planted in Non-Residential Landscapes unless it is Functional Turf. Non-Functional Turf (Decorative Grass) is prohibited in non-residential and multifamily Landscape Projects. ~~The turf area shall not be more than, unless the project applicant develops a water budget per Section 24.I Water Budget Calculation.~~

2. ~~24.G.1.(a)(iii) Turf shall not~~ be planted on slopes greater than 25% where the toe of the slope is adjacent to an impermeable ~~h~~Hardscape and where 25% means one~~1~~ foot (1') of vertical elevation change for every four~~4~~ feet (4') of horizontal length (rise divided by run x 100 = slope percent)

3. have any portions ~~24.G.1.(a)(iv) No portions of turf areas shall be~~ less than eight feet wide.

4. exceed 25% of the Landscape Area, or 1,250 square feet, whichever is lesser in area.

(v) High Water Use Plants are prohibited.

~~24.G.1.(a)(vi) The horticultural attributes of plant species (e.g., mature plant size, invasive roots, structural attributes) shall be considered, in order to minimize the potential for damage to property or infrastructure (e.g., buildings, septic systems, sidewalks, power lines).~~

~~24.G.1.(a)~~(v~~i~~i) Fire-prone plant materials and highly flammable M~~m~~ulches are strongly discouraged. In designated wildland urban interface areas, plants shall be selected, arranged and maintained to provide defensible space for wildfire protection~~, in conformance with~~ per Public Resources Code Section 4291 (a) and (b).

~~24.G.1.(a)~~(v~~i~~ii) Installation of I~~i~~nvasive P~~p~~lants ~~species~~ such as those listed by the California Invasive Plant Council ~~shall be~~is prohibited.

1.~~24.G.1.(a)(ix)~~ Existing I~~i~~nvasive P~~p~~lants and N~~n~~oxious W~~w~~eeds within or adjacent to the proposed L~~l~~andscape A~~a~~rea shall be removed prior to installation, to minimize potential for spread into installation area.

(~~24.G.1.(a)(x)~~ viii) The architectural guidelines, conditions, covenants or restrictions of a C~~c~~ommon I~~i~~nterest D~~d~~evelopment shall not supersede this division. For example, a C~~c~~ommon I~~i~~nterest D~~d~~evelopment may not prohibit L~~l~~ow W~~w~~ater U~~u~~se P~~p~~lants, or include conditions that have the effect of restricting the use of L~~l~~ow W~~w~~ater U~~u~~se P~~p~~lants.

~~24.G.1.(a)(xi) High water use plants, characterized by a plant factor of 0.7 to 1.0 are prohibited on street medians~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.G.1.(b) Irrigation System: An irrigation system shall meet all of the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management and maintenance. In addition:~~

~~24.G.1.(b)(i) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.~~

~~24.G.1.(b)(ii) Irrigation systems shall be designed, maintained and managed to meet or exceed an average landscape irrigation efficiency of 70%.~~

~~24.G.1.(b)(iii) Low-volume irrigation shall be required in mulched areas, in areas with slope greater than 25%, or in any narrow or irregularly shaped areas that are less than ten (10) feet in width in any direction. Irrigation emitters within 24 inches of a non-permeable surface shall be either low-volume, or designed to preclude wasteful overspray and runoff.~~

~~24.G.1.(b)(iv) The irrigation hardware for each hydrozone shall include a separate valve. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and other plant types.~~

~~24.G.1.(b)(v) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data for irrigation scheduling are required.~~

~~24.G.1.(b)(vi) 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.~~

~~24.G.1.(b)(vii) Whenever possible, landscape irrigation shall occur between the hours of 6:00 p.m. and 10:00 a.m., unless climatic conditions or unfavorable weather (e.g. high wind, extreme temperature) prevents it or otherwise renders irrigation unnecessary. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.~~

~~24.G.1.(c) Soil, conditioning, and mulching:~~

~~24.G.1.(c)(i) At the time of installation, a minimum of eight (8) inches of non-compacted topsoil shall be available for water absorption and root growth in planted areas. The City may waive this requirement where a landscape professional has determined that practical limitations (e.g., slope, other geotechnical factors) necessitate a lesser soil depth that is viable for the chosen plant materials.~~

~~24.G.1.(c)(ii) Soil amendments, such as compost or fertilizer, shall be appropriately added according to the soil conditions at the project site and based on what is appropriate for the selected plants.~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.G.1.(c)(v) Prior to planting of any materials, compacted soils shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.~~

~~24.G.1.(d) Hydrozones:~~

~~24.G.1.(d)(i) Hydrozones shall group plant materials of similar water use, and shall generally demarcate areas of similar slope, sun exposure, soil, and other site conditions appropriate for the selected plants.~~

~~24.G.1.(d)(ii) The flow of water to each hydrozone shall be controlled by a separate valve.~~

~~24.G.1.(d)(iii) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.~~

~~24.G.1.(d)(iv) Within a hydrozone, low and moderate water use plants may be mixed, but all plants within that hydrozone shall be classified as moderate water use for MAWA calculations. High water use plants shall not be mixed with low or moderate water use plants.~~

~~24.G.1.~~(b~~e~~) Water Features:

~~24.G.1.(e)~~(i) Recirculating water systems shall be used for W~~w~~ater F~~f~~eatures.

~~24.G.1.(e)~~(ii) Where available, R~~r~~ecycled W~~w~~ater shall be used for decorative W~~w~~ater F~~f~~eatures.

(iii) The ~~wet~~ surface area of any W~~w~~ater F~~f~~eature shall be ~~counted as an area of~~included in the high water use Hydrozone area of the ~~plants for purposes of a~~ water budget calculation~~, except as provided in 24.G.1.(e)(iii), below.~~

~~24.G.1.(e)(iii)The wet surface area of a pool or spa with a cover shall be counted as an area of medium water use plants for purposes of a water budget calculation.~~

~~24.G.1.(e)~~(iv) Swimming Pool and spa covers are required on any newly constructed Swimming P~~p~~ool or spa.

(c) Soil Preparation, Mulch and Amendments:

(i) Prior to planting of any materials, compacted soils shall be transformed to a Friable condition. On engineered slopes, only amended planting holes need meet this requirement.

(ii) Soil amendments shall be appropriately added according to the soil conditions at the project site and based on what is appropriate for the selected plants per Section 23.H.

(iii) For landscape installations, C~~c~~ompost at a rate of at least four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches (6") into the soil. Soils with greater than 6% organic matter in the top six inches (6") of soil are exempt from adding Compost and tilling.

(iv) A minimum three-inch (3") layer of Mulch shall be applied on all exposed soil surfaces of planting areas, except in areas of Turf, creeping or rooting groundcovers or direct seeding application (e.g. hydro-seed). To provide habitat to beneficial insects and wildlife, up to 5% of the Landscape Area may be left without Mulch. Designated insect habitat must be included in the landscape design plan as such.

(v) Stabilizing M~~m~~ulching products shall be used on slopes that meet current engineering Standards.

(vi) The Mulching portion of the seed/Mulch slurry in hydro-seeded applications shall meet the Mulching requirement.

(vii) Organic Mulch materials made from recycled or post-consumer shall take precedence over inorganic materials or virgin forest products unless recycled or post-consumer material is not locally available. Organic Mulches are not required where prohibited by local Fuel Modification Plan Guidelines or other applicable local ordinance.

2. The landscape design ~~portion of the landscape and irrigation design~~ plan, at a minimum, shall:~~24.G.1.(e)(v) Recycled water shall be used for decorative water features where recycled water is made available, meets all applicable standards for those uses and is determined to be suitable and economically feasible.~~

~~24.H LANDSCAPE AND IRRIGATION DESIGN PLANS~~

~~24.H.1 Landscape and irrigation design plans are required of landscape projects larger than 500 square feet when associated with applications for [major project permit types, e.g., design review, grading permit, or use permit], and building permits for new dwellings. The landscape and irrigation design plan shall be prepared as follows:~~

~~24.H.1.(a) The landscape and irrigation design plans shall incorporate all applicable elements of Section 24.G Water Efficient Design Elements.~~

~~24.H.1.(c) The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized by the State of California to design an irrigation system.~~

~~24.H.1.(d)(i) Provide basic project information, such as applicant name, site address, total landscape area and turf area (square feet), irrigation water source (e.g. municipal, well, recycled), and project contacts.~~

~~24.H.1.(d)(ii) Identify, in tabular form, all plants to be installed as part of the project. The table shall include the following:~~

~~Symbol (representing the plant on the plan).~~

~~Common name.~~

~~Botanical name.~~

~~Container size.~~

~~Quantity.~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~Type (e.g. grass, forb, succulent, vine, shrub, tree).~~

~~Water-efficient species identification. All "Native" and "Low Water Use" plant species (defined in section 24.C Definitions) shall be so labeled.~~

~~Unique physical specifications of plants (e.g., bare-root, field-potted, multi-trunk), if applicable.~~

~~24.H.1.(d)(iii) The landscape and irrigation design plan shall include the following:~~

~~General notes, planting notes, plant layout based on size at maturity, species, and symbol legend.~~

~~Spacing of proposed plantings.~~

~~Topography~~

~~Trunk diameter of all existing trees whose trunk circumference is greater than 18.5 inches, measured 54 inches above grade.~~

~~Existing features to remain, such as trees, fencing, hardscape, etc.~~

~~Existing features to be removed.~~

~~Identification of pertinent site factors such as sun exposure, microclimate, property lines, buildings, underground/above-ground utilities, existing drainage features, etc.~~

~~Proposed grading. For earthwork exceeding 150 cubic yards, or for cuts or fills exceeding five vertical feet, a grading permit will be required.~~

~~Seed mix, if applicable.~~

(a~~24.H.1.(d)(iv~~) Delineate and label each ~~h~~Hydrozone~~; Designate the areas irrigated~~ by number to each Irrigation ~~v~~Valve ~~and assign a number to each valve. Use this valve number in the Hydrozone Information Table (see~~per Appendix B Section A~~)~~.

(b) ~~24.H.1.(d)(v)~~ Identify each H~~h~~ydrozone as low water, moderate water, high water, or mixed (low/moderate) water use~~, as defined by WUCOLS;~~. Temporarily irrigated areas of the landscape shall be included in the low water use Hydrozone for the water budget calculations;

~~24.H.1.(d)(vi)~~(c) ~~———~~Identify ~~special landscape~~Recreational ~~a~~Areas;

(d) Identify areas permanently dedicated to edible plants;

(e) Identify areas irrigated with Recycled Water;

~~24.H.1.(d)(vii)~~(f) ~~———~~Identify types of M~~m~~ulch and application depth;

(g~~24.H.1.(d)(viii)~~) -Identify soil amendments, type and quantity;

(h) ~~24.H.1.(d)(ix)~~Identify type and ~~wet~~ surface area of W~~w~~ater F~~f~~eatures;

(i~~24.H.1.(d)(x)~~) Identify H~~h~~ardscapes (P~~p~~ervious and Im~~non-~~pervious)~~; and~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(j) Identify location, installation details and 24-hour retention or infiltration capacity of any applicable Stormwater Best Management Practices that encourage onsite retention and infiltration of Stormwater. Project Applicants shall refer to the City's National Pollutant Discharge Elimination System (NPDES) Stormwater discharge Permit requirements and the Water Quality Control Board for additional applicable Stormwater technical requirements.

(k) Identify any applicable rain harvesting or catchment technologies as discussed in Section 23.S and their 24-hour retention or infiltration capacity;

(l) Identify any applicable Graywater discharge piping, system components and areas of distribution;

(m) ~~24.H.1.(d)(x)~~ Contain the following statement: "I have complied with the criteria of the Potable and Recycled Water ~~Service and Use~~System Rules and Regulations for the Water ~~Conservation in Landscaping~~Efficient Landscape Ordinance and applied them for the efficient use of water in the landscape design plan." and;

(n) Bear the signature of a licensed Landscape Architect, licensed Landscape Contractor, or any other person authorized by the State of California to design a landscape. (See sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.)

23.J IRRIGATION DESIGN PLAN

1. This section applies to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant Establishment Period. For the efficient use of water, an irrigation system shall meet all of the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

   (a) System:

   ~~24.H.1.(e)(i) 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;~~

   ~~24.H.1.(e)(ii) Static water pressure at the point of connection to the public water supply;~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.H.1(e)~~(i~~v~~) Landscape W~~w~~ater M~~m~~eters either a dedicated Water Service meter or private Submeter, shall be installed at all non-residential irrigated landscapes of 1,000 square feet but not more than 5,000 square feet (the level at which Water Code 535 applies) and residential irrigation landscapes of 5,000 square feet or larger. A Landscape Water Meter may be either:

(1) a Customer service meter dedicated to landscape use provided by the City; or

(2) a privately owned meter or Submeter.

(ii) Automatic Irrigation Controllers utilizing either evapotranspiration or Soil Moisture Sensor data using non-volatile memory shall be required for irrigation scheduling are required in all irrigation systems.

(iii) If the water pressure is below or exceeds the recommended pressure of 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 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.

(iv) 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.

(v) 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 or routine repair.

(vi) Backflow Prevention Devices shall be required to protect the water supply from contamination by the irrigation system. A Project Applicant shall refer to the applicable local agency code (i.e., public health) for additional Backflow prevention requirements.

~~24.H.1(e)~~(vii) Flow S~~s~~ensors that detect high flow conditions created by system damage or malfunction are required ~~(~~for N~~n~~on-R~~r~~esidential L~~l~~andscapes and R~~r~~esidential ~~l~~Landscapes of 5,000 square feet or larger~~)~~.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.H.1.(e)(vi)Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;~~

~~24.H.1.(e)~~(vii) Master ~~shut-off v~~Valves are required for all projects except landscapes that make use of technologies that allow for the individual control of ~~sprinklers~~ Spray Heads that are individually pressurized in a system equipped with low pressure shutdown features.

(ix) The irrigation system shall be designed to prevent R~~r~~unoff, low head drainage, O~~o~~verspray, or other similar conditions where irrigation water flows onto non targeted areas such as adjacent property, non-irrigated areas, Hardscapes, roadways or structures.

(x) Relevant information from the soil management plan, such as soil type and Infiltration Rate, shall be utilized when designing irrigation systems.

(xi) The design of the irrigation system shall conform to the Hydrozones of the landscape design plan.

(xii) The irrigation system must be designed and installed to meet, at a minimum, the IE criteria as described in Section 23.G regarding the Maximum Applied Water Allowance.

(xiii) 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.

(xiv) It is the Project Applicant’s responsibility to inquire with the City about peak water operating demands (on the water supply system) and water restrictions that may impact the effectiveness of the irrigation system.

(xv) In Mulched planting areas, the use of Low Volume Irrigation is required to maximize water infiltration into the root zone.

(xvi) Sprinkler Heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

(xvii) Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible Distribution Uniformity using the manufacturer's recommendations.

(xviii) 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 Turf.

(xix) Check Valves or Anti-Drain Valves are required on all Sprinkler Heads where low point drainage could occur.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(xx) Areas less than ten feet (10') in width in any direction shall be irrigated with subsurface irrigation or other means that produces no R~~r~~unoff or ~~o~~Overspray.

(xxi) Overhead Spray Irrigation shall not be permitted within 24 inches (24") of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray 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 Landscape Area is adjacent to permeable surfacing and no R~~r~~unoff occurs; or

2. the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or

3. the 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 Section 23.J.1(a)(xii). Prevention of Overspray and Runoff must be confirmed during the Irrigation Audit.

(xxii) Slopes greater than 25% shall not be irrigated with an irrigation system with a application rate exceeding 0.75 inches (0.75") per hour. This restriction may be modified if the 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.~~24.H.1.(e)(viii)Irrigation schedule;~~

(b) Hydrozones:

(i) Each Irrigation Valve shall irrigate a Hydrozone with similar site, slope, sun exposure, soil conditions and plant materials with similar water use.

(ii) Spr~~inkler~~ay H~~h~~eads and other emission devices shall be selected based on what is appropriate for the plant type within that Hydrozone.

(iii) Where feasible, trees shall be placed on separate Irrigation Valves from shrubs, groundcovers, and other plant types. The mature size and extent of the root zone shall be considered when designing irrigation systems for the tree.

(iv) Within a Hydrozone, Low and Moderate Water Use Plants may be mixed, but all plants within that Hydrozone shall be classified as Moderate Water Use Plants for MAWA calculations.

(v) High Water Use Plants are prohibited and shall not be mixed with Low or Moderate Water Use Plants.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(vi) 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, designate the areas irrigated by each Irrigation Valve and assign a number to each; use this number in the Hydrozone Information Table (see Appendix B Section A). This table can also assist with the Irrigation Audit and programming the controller.

2. The irrigation design ~~portion of the landscape and irrigation design~~ plan, at a minimum, shall contain:

(a) Location and size of separate water meters for landscape ~~(if applicable);~~

(b) Location, type and size of all components of the irrigation system, including controllers, Main and Lateral Lines, Irrigation Valves, Sprinkler Heads, Soil Moisture Sensors, 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 for each Station;

(e) Recycled Water irrigation systems as specified in Section 23.Q.

(f) The following statement: "I have complied with the criteria of the Water Service and Use Rules and Regulations for Water Conservation in Landscaping and applied them accordingly for the efficient use of water in the irrigation design plan."

(g) The signature of a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized by the State of California to design an irrigation system. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)

23.K GRADING DESIGN PLAN

1. For the efficient use of water, grading of a 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. A comprehensive grading plan prepared by a civil engineer for other City Permits satisfies this requirement.

(a) The Project Applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the Landscape Area including:

(i) height of graded slopes;

(ii) drainage patterns;

(iii) pad elevations;

(iv) finish grade; and

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(v) Stormwater retention improvements, if applicable.

(b) To prevent excessive erosion and Runoff, it is highly recommended that Project Applicants:

(i) grade so that all irrigation and normal rainfall remains within property lines and does not drain onto non-permeable Hardscapes;

(ii) avoid disruption of natural drainage patterns and undisturbed soil; and

(iii) avoid soil compaction in Landscape Areas.

(c) Grading shall meet all applicable requirements of the City. A geotechnical engineer shall be consulted prior to the installation of landscaping materials and irrigation hardware on slopes greater than 50%, or in any areas where slope stability may be compromised.

(d) Proposed grading. For earthwork exceeding 150 cubic yards, or for cuts or fills exceeding five vertical feet, a grading Permit is required.

(e) The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use

23.L CERTIFICATE OF COMPLETION

1. The Certificate of Completion (see Appendix C for sample certificate) ~~Project Information sheet~~ shall include the following six (6) elements:

(a) Project Information sheet contains:

(i) Date

(ii) Project name

(iii) Project Applicant name, telephone, and mailing address;

(iv) Project address and location; and

(v) Property Owner name, telephone, and mailing address;

(b) Certification by either 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 per the approved Landscape Documentation Package;

(i) Where there have been significant changes made in the field during construction, these "As-Builts" or Record Drawings shell be included with the certification;

(ii) A diagram of the irrigation plan showing Hydrozones shall be kept with the irrigation controller for subsequent management purposes.

(c) Irrigation scheduling parameters used to set the controller (Section 24.M.);

(d) Landscape Irrigation Maintenance Schedule (Section ~~24.L~~23.N.);

(e) Irrigation Audit ~~Report~~, Survey and Water Use Analysis (Section 2~~3~~4.O.);

(f) Soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of soil report recommendations (Section 23.H.).

2. The Project Applicant shall:

(a) Submit the signed Certificate of Completion to the Building Department for review;

(b) Ensure that copies of the approved Certificate of Completion are submitted to Water & Sewer Utilities and property Owner or ~~his/her~~their designee.

3. The Building Department ~~City of Santa Clara~~ shall:

(a) Receive the signed Certificate of Completion from the Project Applicant;

(b) Approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the Building Department shall provide information to the Project Applicant regarding reapplication, appeal; or other assistance.

23.M IRRIGATION SCHEDULING

1. 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 schedul~~es~~ing shall be regulated by Automatic Controllers.

(b) ~~Whenever possible, I~~Landscape irrigation shall occur between the hours of 6:00 p.m. and 9~~10~~:00 a.m., unless climatic conditions or unfavorable weather (e.g. high wind, extreme temperature) prevents it or otherwise renders irrigation unnecessary. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(c) For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission devices, Flow Rate, and current ETo, so that Applied Water meets the Estimated Total Water Use. Total annual Applied Water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by Automatic Irrigation Controllers using current evapotranspiration data (e.g., CIMIS) or Soil Moisture Sensor data.

(d) Parameters used to set the Automatic Controller shall be developed and submitted for each of the following:

(i) plant Establishment Period;

(ii) Established Landscape; and

(iii) temporarily irrigated areas.

(e) Each irrigation schedule shall consider for each Station all of the following that apply:

(i) irrigation interval;

(ii) irrigation run times;

(iii) number of cycle starts required for each irrigation event to avoid Runoff;

(iv) amount of Applied Water scheduled to be applied on a monthly basis;

(v) application rate setting;

(vi) root depth setting;

(vii) plant type setting;

(viii) soil type;

(ix) slope factor setting;

(x) shade factor setting; and

(xi) irrigation uniformity or efficiency setting.

~~24.H.1.(e)(ix)Location and size of separate water meters for landscape (if applicable); and,~~

~~24.H.1.(e)(x)The following statement: "I have complied with the criteria of the Water Service and Use Rules and Regulations for Water Conservation in Landscaping and applied them accordingly for the efficient use of water in the irrigation design plan."~~

~~24.H.1.(f) Grading. If the landscape project area will be graded, then, at a minimum, grading contours and quantities shall be shown on the landscape design plan. Grading shall meet all applicable requirements of the City. A geotechnical engineer should be consulted prior to the installation of landscaping materials and irrigation hardware on slopes greater than 50%, or in any areas where slope stability may be compromised.~~

~~24.H.1.(g) Storm Water Management. Storm water best management practices shall be incorporated as appropriate into the landscape installation, the details of which shall be shown on the landscape design plan. Practices that increase rainwater capture and retention are encouraged. Installation shall be subject to the City's National Pollutant Discharge Elimination System (NPDES) storm water discharge permit requirements.~~

~~24.I WATER BUDGET CALCULATION~~

~~24.I.1. A Project applicant shall complete a water budget calculation for the landscape project as required per section 24.F Demonstration of Landscape Efficiency. A water budget must be completed by a certified professional who is authorized by the State of California to complete a water budget. Water budget calculations shall adhere to the following requirements:~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.I.1.(a) The plant factor used shall be from WUCOLS. The plant factor ranges from 0.0 to 0.1 for very low water using plants, 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.~~

~~24.I.1.(b) The wet surface area of a water feature shall be counted as an area of high water using plants for purposes of a water budget calculation, except as provided in section 24.I.1(c), below.~~

~~24.I.1.(c) The wet surface area of a pool or spa with a cover shall be counted as an area of medium water using plants for purposes of a water budget calculation.~~

~~24.I.1.(d) Where low and moderate water use plants are be mixed within a single hydrozone, the entire hydrozone area shall be classified as moderate water use for purposes of a water budget calculation. All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the flow water use hydrozone. High water use plants shall not be mixed with low or moderate water use plants.~~

~~24.I.1.(e) All special landscape areas shall be identified and their water use included in the water budget calculations.~~

~~24.I.1.(f) The reference evapotranspiration adjustment factor (ETAF) for special landscape areas shall not exceed 1.0. The ETAF for the remaining landscaped area shall not exceed 0.55 for residential areas and 0.45 for non-residential areas.~~

~~24.I.1.(g) Irrigation system efficiency shall be greater than or equal to 70%.~~

~~24.I.1.(h) Maximum Applied Water Allowance (MAWA) shall be calculated using the equation below:~~

~~For Residential Areas:~~

~~MAWA = (ETo) (0.62) [(0.55 x LA) + (0.45 x SLA)]~~

~~For Non-Residential Areas:~~

~~MAWA = (ETo) (0.62) [(0.45 x LA) + (0.55 x SLA)]~~

~~Where:~~

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

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

~~0.62 = Conversion Factor (acre-inches to gallons)~~

~~0.55 = Reference Evapotranspiration Adjustment Factor for residential areas~~

~~0.45 = Reference Evapotranspiration Adjustment Factor for non-residential areas~~

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

~~0.45 = Additional Water Allowance for SLA in residential areas~~

~~0.55 = Additional Water Allowance for SLA in non-residential areas~~

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

~~24.I.1.(i) A project applicant may consider effective precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate the MAWA:~~

~~MAWA = (ETo - Eppt) (0.62) [(0.55 x LA) + (0.45 x SLA)] for residential areas~~

~~MAWA = (ETo - Eppt) (0.62) [(0.45 x LA) + (0.45 x SLA)] for non-residential areas~~

~~ETo values from the Reference Evapotranspiration Table in Appendix A shall be used in calculating the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU)~~

~~24.I.1.(j) Estimated Total Water Use (ETWU) shall be calculated for each hydrozone using the equation below. The sum of the ETWU calculated for all hydrozones shall not exceed the MAWA.~~

~~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 0.70)~~

~~24.J SOIL ANALYSIS~~

~~24.J.1. In order to reduce runoff and encourage healthy plant growth, The City shall have discretion to require soil analysis as a condition of approval for any [major project permit types, e.g., grading permit, or use permit], where a landscape project submittal is required (Appendix E).~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~24.J.2 A soil analysis report shall document the various characteristics of the soil (e.g. texture, infiltration rate, pH, soluble salt content, percent organic matter, etc), and provide recommendations for amendments as appropriate to optimize the productivity and water efficiency of the soil. Soil samples shall be submitted to a laboratory for analysis and recommendations. Sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants. The soil analysis report shall be made available to the professionals preparing the landscape and irrigation design plans in a timely manner either before or during the design process. A copy of the soils analysis report shall be submitted to the City as part of the landscape documentation package.~~

~~24.J.3 In projects with multiple landscape installations (i.e. product home developments) a soil sampling rate of 1in 7 lots or approximately 15% will satisfy this requirement. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.~~

~~24.J.4 The project applicant or his/her designee shall comply with one of the following:~~

~~24.J.4.(a) If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation; or~~

~~24.J.4.(b) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion~~

~~24.J.4.(c) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.~~

~~24.J.4.(d) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the Certificate of Completion.~~

~~24.K. LANDSCAPE INSTALLATION REPORT~~

~~24.K.1. A Landscape installation assessment for new or rehabilitated landscapes shall be conducted by a certified landscape professional after the landscaping and irrigation system have been installed. The findings of the assessment shall be consolidated into a Landscape Installation Report.~~

~~24.K.1.(a) The Landscape Installation Report shall include, but is not limited to: inspection to confirm that the landscaping and irrigation system were installed as specified in the landscape and irrigation design plan, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule.~~

~~24.K.1.(b) The Landscape Installation Report shall include the following statement: "The landscape and irrigation system has been installed as specified in the landscape and irrigation design plan and complies with the criteria of the Water Service Rules and Regulations for Water Conservation in Landscaping."~~

~~24.K.1.(c) The City of Santa Clara shall administer ongoing programs that may include, but not be limited to, post-installation landscape inspection, irrigation water use analysis, irrigation audits, irrigation surveys and water budget calculations to evaluate compliance with the MAWA.~~

~~24.L~~23.N LANDSCAPE AND IRRIGATION MAINTENANCE

~~24.L.~~1. Landscapes shall be maintained to ensure successful establishment following installation, and to ensure water use efficiency consistent with these Rules and Regulations. A maintenance schedule shall be established and submitted to the City ~~either~~ with the ~~landscape application package, with the Landscape Installation Report, or any time before the landscape installation report is submitted~~Certificate of Completion. Maintenance contract documentation shall be provided to the City if so requested.

2.~~24.L.1.(a)~~ Maintenance shall include, but not be limited to the following: routine inspection; auditing, pressure testing, adjustment and repair of the irrigation system; aerating and de-thatching T~~t~~urf areas; replenishing M~~m~~ulch; fertilizing; pruning; replanting of failed plants; weeding; pest control; and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and maintenance.

3. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

4. A Project Applicant is encouraged to implement Established Landscape industry sustainable Best Practices for all landscape maintenance activities.

5. ~~24.L.1.(b)~~ 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. Failing plants shall either be replaced, or be revived through appropriate adjustments in water, nutrients, pest control or other factors as recommended by a landscaping professional.

~~24.L.2. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission devices, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current evapotranspiration data or soil moisture sensor data.~~

~~24.L.3. Parameters used to set the automatic controller shall be developed and submitted for each of the following:~~

~~24.L.3.(a) Plant establishment period; established landscape; and temporarily irrigated areas~~

~~24.L.4. Each irrigation schedule shall consider for each station all of the following that apply:~~

~~24.L.4.(a) irrigation interval; irrigation run times,; number of cycle starts required for each irrigation event to avoid run off; amount of applied water scheduled to be applied on a monthly basis; application rate setting; root depth setting; plant type setting; soil type; slope factor setting; shade factor setting; and irrigation uniformity or efficiency setting.~~

~~24.M LANDSCAPE PROJECT REFERRAL~~ 23.O IRRIGATION AUDIT, SURVEY AND WATER USE ANALYSIS

~~24.M.~~1. ~~-~~All landscape Irrigation Audits shall be conducted by a third-party Certified Landscape Irrigation Auditor. Landscape Irrigation Audits shall not be conducted by the person who designed the landscape or installed the landscape. The City shall refer the L~~l~~andscape ~~project d~~Document~~s~~ation Package to any City department or outside agency whose interests or area of expertise warrants their participation in the review process. Referral agencies may include, but are not limited to, Santa Clara Valley Water District and Santa Clara Fire Department.

2. In large projects or projects with multiple landscape installations (i.e. production home Developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

3. For New Construction and Rehabilitated Landscape Projects installed after December 1, 2015, as described in Section 23.B:

   (a) The Project Applicant shall submit an Irrigation Audit ~~Landscape Installation~~ Report with the Certificate of Completion to Water & Sewer Utilities that shall include, but is not limited to: inspection to confirm that the landscaping and irrigation system were installed as specified in the landscape and irrigation design plan, system tune-up, system test with Distribution Uniformity, reporting Overspray or Runoff 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 programming;

   (b) The City of Santa Clara shall administer ongoing programs that may include, but not be limited to, Irrigation Water Use Analysis, Irrigation Audits, Irrigation Surveys and water budget calculations to evaluate compliance with the MAWA.

23.P IRRIGATION EFFICIENCY

For the purpose of determining Estimated Total Water Use, average IE is assumed to be 0.75 for Overhead Spray Devices and 0.81 for Drip System devices.

~~24.N LANDSCAPE PROJECT REVIEW FEE~~

~~24.N. A landscape project review fee shall be required by the schedule of fees established by resolution of the City Council.~~

~~24.O AUDIT OF EXISTING LANDSCAPES~~

~~24.O.1. This section shall apply to all existing landscapes that were installed before the effective date of this Ordinance and are over one acre in size. The City shall be authorized to require audits to evaluate water use on established landscapes larger than one acre. Such audit may be also be initiated as a coordinated effort between the City and a water purveyor (e.g., Santa Clara Valley Water District, as part of the Water District's established outdoor water conservation programs). When such audit is required, it must be completed by a certified landscape irrigation auditor. All existing landscapes over one acre in size, even if installed before the enactment of this Ordinance, shall maintain landscape irrigation facilities to prevent water waste and runoff.~~

~~24.O.2. Following the findings and recommendations of the certified landscape irrigation auditor, the City may require adjustments to irrigation usage, irrigation hardware, and/or landscape materials to reduce irrigation water use. Landscape renovation or rehabilitation resulting from such audit activity shall be considered a Landscape Project, and shall be subject to applicable document submittal requirements of Section 24.E Components of Landscape Project Submittal.~~

~~24.O.3. For established landscapes that have dedicated irrigation meters, the maximum applied water allowance (MAWA) shall be calculated as follows:~~

~~MAWA= (ETo) (0.62) (LA) (0.8)~~

~~Where:~~

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

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

~~0.62 = Conversion Factor (acre-inches to gallons)~~

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

~~0.7 = Reference Evapotranspiration Adjustment Factor (ETAF)~~

~~24.O.4 Water Waste Prevention~~

~~24.O.4.(a) Restrictions regarding overspray and runoff may be modified if:~~

~~24.O.4.(a)(i) The landscape area is adjacent to permeable surfacing and no run off occurs; or~~

~~24.O.4.(b)(ii) the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.~~

~~24.O.5. The Landscape Audit Report shall include the following statement: "The landscape and irrigation system has been installed as specified in the Landscape and Irrigation Design Plan and complies with the criteria of the Ordinance and the permit."~~

23~~24~~.Q RECYCLED WATER

~~24.Q.~~1. The installation of R~~r~~ecycled W~~w~~ater irrigation systems shall allow for the current and future use of ~~r~~Recycled W~~w~~ater

~~24.Q.~~2. All R~~r~~ecycled W~~w~~ater irrigation systems shall be designed and operated in accordance with all applicable local and state laws

~~24.Q.~~3. Landscapes using R~~r~~ecycled W~~w~~ater are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0

23.R GRAYWATER SYSTEMS

Graywater systems for onsite landscape irrigation promote the efficient use of water and are required for New Construction and shower or laundry additions or alterations for single-family buildings. All Graywater systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any applicable local ordinance Standards. Refer to Section 23.B.3. for the applicability of this ordinance to Landscape Areas less than 2,500 square feet with the ETWU met entirely by Graywater.

23.S STORMWATER MANAGEMENT AND RAINWATER RETENTION

1. Stormwater management practices minimize Runoff and increase infiltration which recharges groundwater and improves water quality. Stormwater Best Management Practices shall be incorporated as appropriate into the landscape installation, the details of which shall be shown on the landscape design plan. Practices that increase rainwater capture and retention are encouraged.
2. Project Applicants shall refer to the City's National Pollutant Discharge Elimination System (NPDES) Stormwater discharge Permit requirements and the Regional Water Quality Control Board for information on any additional applicable Stormwater technical requirements.
3. All planted Landscape Areas are required to have Friable soil to maximize water retention and infiltration. Refer to Section 23.I.1.(c).
4. In addition to the requirements set forth in the NPDES Permit, and where not already mandated, it is strongly recommended that Landscape Areas be designed for capture and infiltration capacity that is sufficient to prevent Runoff from Impervious surfaces (i.e. roof and paved areas) from either: the one-inch (1"), 24-hour rain event or the 85th percentile, 24-hour rain event, and/or additional capacity as required by any applicable local, regional, state or federal regulation.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

5. In addition to the requirements set forth in the NPDES Permit, and where not already mandated, it is strongly recommended that Stormwater projects incorporate one or more of the following elements to improve onsite Stormwater and dry weather Runoff capture and use:

   (a) Grade Impervious surfaces, such as driveways, during construction to drain to vegetated areas.

   (b) Minimize the area of Impervious surfaces such as paved areas, roof and concrete driveways.

   (c) Incorporate Pervious or porous surfaces (e.g., gravel, permeable pavers or blocks, Pervious or porous concrete) that minimize Runoff.

   (d) Direct Runoff from paved surfaces and roof areas into planting beds or landscaped areas to maximize site water capture and reuse.

   (e) Incorporate rain gardens, cisterns, and other rain harvesting or catchment systems.

   (f) Incorporate infiltration beds, swales, basins and drywells to capture Stormwater and dry weather Runoff and increase percolation into the soil.

   (g) Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutants.

~~**24.R ENVIRONMENTAL REVIEW**~~

~~24.R.1. The City must comply with the California Environmental Water Quality (CEQA), as appropriate~~

~~24.S~~23.T PUBLIC EDUCATION

~~24.S.~~1. Publications: Education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management, and maintenance to save water is encouraged~~. in the community.~~

   (a) ~~-~~The City shall provide information to all Project ~~a~~Applicants regarding the design, installation, management and maintenance of water-efficient landscapes and irrigation systems. This shall include, and is not limited to, promoting the use of R~~r~~ecycled W~~w~~ater and the efficient use of water through water conservation incentive programs offered by the City or the Santa Clara Valley Water District.

~~24.S.~~2. All model homes that are landscaped shall have signs installed that provide information on the principles of water-efficient landscaping described in these Rules and Regulations:

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(a) Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as Hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per these Rules and Regulations, specify who designed and installed the water efficient landscape, and demonstrate low water use approaches to landscaping such as using Native Plants, Graywater systems, and rainwater catchment systems.

(b) Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

23.U ENVIRONMENTAL REVIEW

The City must comply with the California Environmental Water Quality (CEQA), as appropriate.

~~24.T PENALTIES~~

~~24.T.1 Non-compliance with any applicable provision of the Water Service and Use Rules and Regulations shall constitute a violation of the City Code shall be subject to enforcement action and/or permit revocation.~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

23.V IRRIGATION AUDIT, SURVEY AND WATER USE ANALYSIS OF EXISTING LANDSCAPES

1. This section shall apply to all existing landscapes that were installed before ~~the effective date of this Ordinance~~ December 1, 2015 and are over one acre in size. The City shall be authorized to require audits to evaluate water use on existing landscapes larger than one acre. Such audit may be also be initiated as a coordinated effort between the City and a Local Water Purveyor (e.g., Santa Clara Valley Water District, as part of the Water District's established outdoor water conservation programs).

   (a) For existing landscapes in 23.V.1. that have dedicated irrigation meters, the City shall administer programs that may include, but are not limited to, irrigation water use analyses, Irrigation Surveys, and Irrigation Audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes. The maximum Applied Water allowance (MAWA) for existing landscapes shall be calculated as follows: MAWA= (0.8) (ETo) (LA) (0.62)

   (b) For all landscape in Section 23.V.1. that do not have a meter, the City shall administer programs that may include, but are not limited to, Irrigation Surveys and Irrigation Audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

   (c) Following the findings and recommendations of the Certified Landscape Irrigation Auditor, the City may require adjustments to irrigation usage, irrigation hardware, and/or landscape materials to reduce irrigation water use. Landscape renovation or rehabilitation resulting from such audit activity shall be considered a Landscape Project, and shall be subject to applicable document submittal requirements of Section 23.F~~4.E~~. Components of Landscape Documentation Package~~Project Submittal~~.

2. All landscape Irrigation Audits must be completed by a Certified Landscape Irrigation Auditor.

23.W WATER WASTE PREVENTION

1. The City shall prevent water waste resulting from inefficient landscape irrigation by prohibiting Runoff from leaving the target landscape due to low head drainage, Overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures.

2. Restrictions regarding Overspray and Runoff may be modified if:

   (a) The Landscape Area is adjacent to permeable surfacing and no Runoff occurs; or

   (b) The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

23.X EFFECTIVE PRECIPITATION

1. The City or other local agency may consider EPPT (25% of annual precipitation) in tracking water use and may use the following equation to calculate the MAWA:

   Residential: MAWA = (ETo - EPPT) (0.62) [(0.55 x LA) + (0.45 x SLA)]

   Non-Residential: MAWA = (ETo - EPPT) (0.62) [(0.45 x LA) + (0.45 x SLA)]

23.Y REPORTING

1. By January 31st of each year, the City shall report on implementation and enforcement of its ordinance to the Department of Water Resources.
2. The City shall address the following:
   (a) The City has a single agency ordinance, adopted February 9, 2016 and updated November 2024.
   (b) City reporting will be for the calendar year.
   (c) The Rules and Regulations are at least as efficient as MWELO and include the following differences: High Water Use Plants are prohibited and Non-Functional Turf (Decorative Grass) is prohibited for non-residential properties.
   (d) The City of Santa Clara is responsible for implementing the Water Service and Use Rules and Regulations.
   (e) State number and types of projects subject to the ordinance during the specified reporting period.
   (f) State the total area (in square feet or acres) subject to the ordinance over the reporting period, if available.
   (g) Provide the number of new housing starts, new commercial projects, and landscape retrofits during the reporting period.
   (h) Describe review procedure for projects subject to the ordinance.
   (i) Describe actions taken to verify compliance. Is a plan check performed; if so, by what entity? Is a site inspection performed; if so, by what entity? Is a post-installation audit required; if so, by whom?
   (j) Describe enforcement measures.
   (k) Explain implementation and enforcement challenges.
   (l) Describe educational and other needs to properly apply the ordinance.

23.Z APPENDICES

APPENDIX A: REFERENCE ETO TABLE

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
ALAMEDA													
Fremont	1.5	1.9	3.4	4.7	5.4	6.3	6.7	6.0	4.5	3.4	1.8	1.5	47.0
Livermore	1.2	1.5	2.9	4.4	5.9	6.6	7.4	6.4	5.3	3.2	1.5	0.9	47.2
Oakland	1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8
Oakland Foothills	1.1	1.4	2.7	3.7	5.1	6.4	5.8	4.9	3.6	2.6	1.4	1.0	39.6
Pleasanton	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
Union City	1.4	1.8	3.1	4.2	5.4	5.9	6.4	5.7	4.4	3.1	1.5	1.2	44.2
ALPINE													
Markleeville	0.7	0.9	2.0	3.5	5.0	6.1	7.3	6.4	4.4	2.6	1.2	0.5	40.6
AMADOR													
Jackson	1.2	1.5	2.8	4.4	6.0	7.2	7.9	7.2	5.3	3.2	1.4	0.9	48.9
Shanandoah Valley	1.0	1.7	2.9	4.4	5.6	6.8	7.9	7.1	5.2	3.6	1.7	1.0	48.8
BUTTE													
Chico	1.2	1.8	2.9	4.7	6.1	7.4	8.5	7.3	5.4	3.7	1.7	1.0	51.7
Durham	1.1	1.8	3.2	5.0	6.5	7.4	7.8	6.9	5.3	3.6	1.7	1.0	51.1
Gridley	1.2	1.8	3.0	4.7	6.1	7.7	8.5	7.1	5.4	3.7	1.7	1.0	51.9
Oroville	1.2	1.7	2.8	4.7	6.1	7.6	8.5	7.3	5.3	3.7	1.7	1.0	51.5
CALAVERAS													
San Andreas	1.2	1.5	2.8	4.4	6.0	7.3	7.9	7.0	5.3	3.2	1.4	0.7	48.8
COLUSA													
Colusa	1.0	1.7	3.4	5.0	6.4	7.6	8.3	7.2	5.4	3.8	1.8	1.1	52.8
Williams	1.2	1.7	2.9	4.5	6.1	7.2	8.5	7.3	5.3	3.4	1.6	1.0	50.8
~~CONTRA COSTA~~													
Brentwood	1.0	1.5	2.9	4.5	6.1	7.1	7.9	6.7	5.2	3.2	1.4	0.7	48.3
Concord	1.1	1.4	2.4	4.0	5.5	5.9	7.0	6.0	4.8	3.2	1.3	0.7	43.4
Courtland	0.9	1.5	2.9	4.4	6.1	6.9	7.9	6.7	5.3	3.2	1.4	0.7	48.0
Martinez	1.2	1.4	2.4	3.9	5.3	5.6	6.7	5.6	4.7	3.1	1.2	0.7	41.8
Moraga	1.2	1.5	3.4	4.2	5.5	6.1	6.7	5.9	4.6	3.2	1.6	1.0	44.9
Pittsburg	1.0	1.5	2.8	4.1	5.6	6.4	7.4	6.4	5.0	3.2	1.3	0.7	45.4
Walnut Creek	0.8	1.5	2.9	4.4	5.6	6.7	7.4	6.4	4.7	3.3	1.5	1.0	46.2
DEL NORTE													
Crescent City	0.5	0.9	2.0	3.0	3.7	3.5	4.3	3.7	3.0	2.0	0.9	0.5	27.7
EL DORADO													
Camino	0.9	1.7	2.5	3.9	5.9	7.2	7.8	6.8	5.1	3.1	1.5	0.9	47.3
FRESNO													
Clovis	1.0	1.5	3.2	4.8	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Coalinga	1.2	1.7	3.1	4.6	6.2	7.2	8.5	7.3	5.3	3.4	1.6	0.7	50.9
Firebaugh	1.0	1.8	3.7	5.7	7.3	8.1	8.2	7.2	5.5	3.9	2.0	1.1	55.4
FivePoints	1.3	2.0	4.0	6.1	7.7	8.5	8.7	8.0	6.2	4.5	2.4	1.2	60.4
Fresno	0.9	1.7	3.3	4.8	6.7	7.8	8.4	7.1	5.2	3.2	1.4	0.6	51.1
Fresno State	0.9	1.6	3.2	5.2	7.0	8.0	8.7	7.6	5.4	3.6	1.7	0.9	53.7
Friant	1.2	1.5	3.1	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
Kerman	0.9	1.5	3.2	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.2
Kingsburg	1.0	1.5	3.4	4.8	6.6	7.7	8.4	7.2	5.3	3.4	1.4	0.7	51.6
Mendota	1.5	2.5	4.6	6.2	7.9	8.6	8.8	7.5	5.9	4.5	2.4	1.5	61.7
Orange Cove	1.2	1.9	3.5	4.7	7.4	8.5	8.9	7.9	5.9	3.7	1.8	1.2	56.7
Panoche	1.1	2.0	4.0	5.6	7.8	8.5	8.3	7.3	5.6	3.9	1.8	1.2	57.2
Parlier	1.0	1.9	3.6	5.2	6.8	7.6	8.1	7.0	5.1	3.4	1.7	0.9	52.0

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
FRESNO													
Reedley	1.1	1.5	3.2	4.7	6.4	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.3
Westlands	0.9	1.7	3.8	6.3	8.0	8.6	8.6	7.8	5.9	4.3	2.1	1.1	58.8
GLENN													
Orland	1.1	1.8	3.4	5.0	6.4	7.5	7.9	6.7	5.3	3.9	1.8	1.4	52.1
Willows	1.2	1.7	2.9	4.7	6.1	7.2	8.5	7.3	5.3	3.6	1.7	1.0	51.3
HUMBOLDT													
Eureka	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Ferndale	0.5	1.1	2.0	3.0	3.7	3.7	3.7	3.7	3.0	2.0	0.9	0.5	27.5
Garberville	0.6	1.2	2.2	3.1	4.5	5.0	5.5	4.9	3.8	2.4	1.0	0.7	34.9
Hoopa	0.5	1.1	2.1	3.0	4.4	5.4	6.1	5.1	3.8	2.4	0.9	0.7	35.6
IMPERIAL													
Brawley	2.8	3.8	5.9	8.0	10.4	11.5	11.7	10.0	8.4	6.2	3.5	2.1	84.2
Calipatria/Mulberry	2.4	3.2	5.1	6.8	8.6	9.2	9.2	8.6	7.0	5.2	3.1	2.3	70.7
El Centro	2.7	3.5	5.6	7.9	10.1	11.1	11.6	9.5	8.3	6.1	3.3	2.0	81.7
Holtville	2.8	3.8	5.9	7.9	10.4	11.6	12.0	10.0	8.6	6.2	3.5	2.1	84.7
Meloland	2.5	3.2	5.5	7.5	8.9	9.2	9.0	8.5	6.8	5.3	3.1	2.2	71.6
Palo Verde II	2.5	3.3	5.7	6.9	8.5	8.9	8.6	7.9	6.2	4.5	2.9	2.3	68.2
Seeley	2.7	3.5	5.9	7.7	9.7	10.1	9.3	8.3	6.9	5.5	3.4	2.2	75.4
Westmoreland	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Yuma	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
INYO													
Bishop	1.7	2.7	4.8	6.7	8.2	10.9	7.4	9.6	7.4	4.8	2.5	1.6	68.3
Death Valley Jct	2.2	3.3	5.4	7.7	9.8	11.1	11.4	10.1	8.3	5.4	2.9	1.7	79.1
Independence	1.7	2.7	3.4	6.6	8.5	9.5	9.8	8.5	7.1	3.9	2.0	1.5	65.2
Lower Haiwee Res.	1.8	2.7	4.4	7.1	8.5	9.5	9.8	8.5	7.1	4.2	2.6	1.5	67.6
Oasis	2.7	2.8	5.9	8.0	10.4	11.7	11.6	10.0	8.4	6.2	3.4	2.1	83.1
KERN													
Arvin	1.2	1.8	3.5	4.7	6.6	7.4	8.1	7.3	5.3	3.4	1.7	1.0	51.9
Bakersfield	1.0	1.8	3.5	4.7	6.6	7.7	8.5	7.3	5.3	3.5	1.6	0.9	52.4
Bakersfield/Bonanza	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Bakersfield/Greenlee	1.2	2.2	3.7	5.7	7.4	8.2	8.7	7.8	5.7	4.0	2.1	1.2	57.9
Belridge	1.4	2.2	4.1	5.5	7.7	8.5	8.6	7.8	6.0	3.8	2.0	1.5	59.2
Blackwells Corner	1.4	2.1	3.8	5.4	7.0	7.8	8.5	7.7	5.8	3.9	1.9	1.2	56.6
Buttonwillow	1.0	1.8	3.2	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.5	0.9	52.0
China Lake	2.1	3.2	5.3	7.7	9.2	10.0	11.0	9.8	7.3	4.9	2.7	1.7	74.8
Delano	0.9	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.4	3.4	1.4	0.7	52.0
Famoso	1.3	1.9	3.5	4.8	6.7	7.6	8.0	7.3	5.5	3.5	1.7	1.3	53.1
Grapevine	1.3	1.8	3.1	4.4	5.6	6.8	7.6	6.8	5.9	3.4	1.9	1.0	49.5
Inyokern	2.0	3.1	4.9	7.3	8.5	9.7	11.0	9.4	7.1	5.1	2.6	1.7	72.4
Isabella Dam	1.2	1.4	2.8	4.4	5.8	7.3	7.9	7.0	5.0	3.2	1.7	0.9	48.4
Lamont	1.3	2.4	4.4	4.6	6.5	7.0	8.8	7.6	5.7	3.7	1.6	0.8	54.4
Lost Hills	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
McFarland/Kern	1.2	2.1	3.7	5.6	7.3	8.0	8.3	7.4	5.6	4.1	2.0	1.2	56.5
Shafter	1.0	1.7	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.5	0.9	52.1
Taft	1.3	1.8	3.1	4.3	6.2	7.3	8.5	7.3	5.4	3.4	1.7	1.0	51.2
Tehachapi	1.4	1.8	3.2	5.0	6.1	7.7	7.9	7.3	5.9	3.4	2.1	1.2	52.9
KINGS													
Caruthers	1.6	2.5	4.0	5.7	7.8	8.7	9.3	8.4	6.3	4.4	2.4	1.6	62.7

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
KINGS													
Corcoran	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Hanford	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.2	5.4	3.4	1.4	0.7	51.5
Kettleman	1.1	2.0	4.0	6.0	7.5	8.5	9.1	8.2	6.1	4.5	2.2	1.1	60.2
Lemoore	0.9	1.5	3.4	5.0	6.6	7.7	8.3	7.3	5.4	3.4	1.4	0.7	51.7
Stratford	0.9	1.9	3.9	6.1	7.8	8.6	8.8	7.7	5.9	4.1	2.1	1.0	58.7
LAKE													
Lakeport	1.1	1.3	2.6	3.5	5.1	6.0	7.3	6.1	4.7	2.9	1.2	0.9	42.8
Lower Lake	1.2	1.4	2.7	4.5	5.3	6.3	7.4	6.4	5.0	3.1	1.3	0.9	45.4
LASSEN													
Buntingville	1.0	1.7	3.5	4.9	6.2	7.3	8.4	7.5	5.4	3.4	1.5	0.9	51.8
Ravendale	0.6	1.1	2.3	4.1	5.6	6.7	7.9	7.3	4.7	2.8	1.2	0.5	44.9
Susanville	0.7	1.0	2.2	4.1	5.6	6.5	7.8	7.0	4.6	2.8	1.2	0.5	44.0
LOS ANGELES													
Burbank	2.1	2.8	3.7	4.7	5.1	6.0	6.6	6.7	5.4	4.0	2.6	2.0	51.7
Claremont	2.0	2.3	3.4	4.6	5.0	6.0	7.0	7.0	5.3	4.0	2.7	2.1	51.3
El Dorado	1.7	2.2	3.6	4.8	5.1	5.7	5.9	5.9	4.4	3.2	2.2	1.7	46.3
Glendale	2.0	2.2	3.3	3.8	4.7	4.8	5.7	5.6	4.3	3.3	2.2	1.8	43.7
Glendora	2.0	2.5	3.6	4.9	5.4	6.1	7.3	6.8	5.7	4.2	2.6	2.0	53.1
Gorman	1.6	2.2	3.4	4.6	5.5	7.4	7.7	7.1	5.9	3.6	2.4	1.1	52.4
Hollywood Hills	2.1	2.2	3.8	5.4	6.0	6.5	6.7	6.4	5.2	3.7	2.8	2.1	52.8
Lancaster	2.1	3.0	4.6	5.9	8.5	9.7	11.0	9.8	7.3	4.6	2.8	1.7	71.1
Long Beach	1.8	2.1	3.3	3.9	4.5	4.3	5.3	4.7	3.7	2.8	1.8	1.5	39.7
Los Angeles	2.2	2.7	3.7	4.7	5.5	5.8	6.2	5.9	5.0	3.9	2.6	1.9	50.1
Monrovia	2.2	2.3	3.8	4.3	5.5	5.9	6.9	6.4	5.1	3.2	2.5	2.0	50.2
Palmdale	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
Pasadena	2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.3
Pearblossom	1.7	2.4	3.7	4.7	7.3	7.7	9.9	7.9	6.4	4.0	2.6	1.6	59.9
Pomona	1.7	2.0	3.4	4.5	5.0	5.8	6.5	6.4	4.7	3.5	2.3	1.7	47.5
Redondo Beach	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.6
San Fernando	2.0	2.7	3.5	4.6	5.5	5.9	7.3	6.7	5.3	3.9	2.6	2.0	52.0
Santa Clarita	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Santa Monica	1.8	2.1	3.3	4.5	4.7	5.0	5.4	5.4	3.9	3.4	2.4	2.2	44.2
MADERA													
Chowchilla	1.0	1.4	3.2	4.7	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Madera	0.9	1.4	3.2	4.8	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.5
Raymond	1.2	1.5	3.0	4.6	6.1	7.6	8.4	7.3	5.2	3.4	1.4	0.7	50.5
MARIN													
Black Point	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
Novato	1.3	1.5	2.4	3.5	4.4	6.0	5.9	5.4	4.4	2.8	1.4	0.7	39.8
Point San Pedro	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
San Rafael	1.2	1.3	2.4	3.3	4.0	4.8	4.8	4.9	4.3	2.7	1.3	0.7	35.8
MARIPOSA													
Coulterville	1.1	1.5	2.8	4.4	5.9	7.3	8.1	7.0	5.3	3.4	1.4	0.7	48.8
Mariposa	1.1	1.5	2.8	4.4	5.9	7.4	8.2	7.1	5.0	3.4	1.4	0.7	49.0
Yosemite Village	0.7	1.0	2.3	3.7	5.1	6.5	7.1	6.1	4.4	2.9	1.1	0.6	41.4
MENDOCINO													
Fort Bragg	0.9	1.3	2.2	3.0	3.7	3.5	3.7	3.7	3.0	2.3	1.2	0.7	29.0
Hopland	1.1	1.3	2.6	3.4	5.0	5.9	6.5	5.7	4.5	2.8	1.3	0.7	40.9

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
MENDOCINO													
Point Arena	1.0	1.3	2.3	3.0	3.7	3.9	3.7	3.7	3.0	2.3	1.2	0.7	29.6
Sanel Valley	1.0	1.6	3.0	4.6	6.0	7.0	8.0	7.0	5.2	3.4	1.4	0.9	49.1
Ukiah	1.0	1.3	2.6	3.3	5.0	5.8	6.7	5.9	4.5	2.8	1.3	0.7	40.9
MERCED													
Kesterson	0.9	1.7	3.4	5.5	7.3	8.2	8.6	7.4	5.5	3.8	1.8	0.9	55.1
Los Banos	1.0	1.5	3.2	4.7	6.1	7.4	8.2	7.0	5.3	3.4	1.4	0.7	50.0
Merced	1.0	1.5	3.2	4.7	6.6	7.9	8.5	7.2	5.3	3.4	1.4	0.7	51.5
MODOC													
Modoc/Alturas	0.9	1.4	2.8	3.7	5.1	6.2	7.5	6.6	4.6	2.8	1.2	0.7	43.2
MONO													
Bridgeport	0.7	0.9	2.2	3.8	5.5	6.6	7.4	6.7	4.7	2.7	1.2	0.5	43.0
MONTEREY													
Arroyo Seco	1.5	2.0	3.7	5.4	6.3	7.3	7.2	6.7	5.0	3.9	2.0	1.6	52.6
Castroville	1.4	1.7	3.0	4.2	4.6	4.8	4.0	3.8	3.0	2.6	1.6	1.4	36.2
Gonzales	1.3	1.7	3.4	4.7	5.4	6.3	6.3	5.9	4.4	3.4	1.9	1.3	45.7
Greenfield	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
King City	1.7	2.0	3.4	4.4	4.4	5.6	6.1	6.7	6.5	5.2	2.2	1.3	49.6
King City-Oasis Rd.	1.4	1.9	3.6	5.3	6.5	7.3	7.4	6.8	5.1	4.0	2.0	1.5	52.7
Long Valley	1.5	1.9	3.2	4.1	5.8	6.5	7.3	6.7	5.3	3.6	2.0	1.2	49.1
Monterey	1.7	1.8	2.7	3.5	4.0	4.1	4.3	4.2	3.5	2.8	1.9	1.5	36.0
Pajaro	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.1
[illegible]													
Salinas North	1.2	1.5	2.9	4.1	4.6	5.2	4.5	4.3	3.2	2.8	1.5	1.2	36.9
San Ardo	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
San Juan	1.8	2.1	3.4	4.6	5.3	5.7	5.5	4.9	3.8	3.2	2.2	1.9	44.2
Soledad	1.7	2.0	3.4	4.4	5.5	5.4	6.5	6.2	5.2	3.7	2.2	1.5	47.7
NAPA													
Angwin	1.8	1.9	3.2	4.7	5.8	7.3	8.1	7.1	5.5	4.5	2.9	2.1	54.9
Carneros	0.8	1.5	3.1	4.6	5.5	6.6	6.9	6.2	4.7	3.5	1.4	1.0	45.8
Oakville	1.0	1.5	2.9	4.7	5.8	6.9	7.2	6.4	4.9	3.5	1.6	1.2	47.7
St Helena	1.2	1.5	2.8	3.9	5.1	6.1	7.0	6.2	4.8	3.1	1.4	0.9	44.1
Yountville	1.3	1.7	2.8	3.9	5.1	6.0	7.1	6.1	4.8	3.1	1.5	0.9	44.3
NEVADA													
Grass Valley	1.1	1.5	2.6	4.0	5.7	7.1	7.9	7.1	5.3	3.2	1.5	0.9	48.0
Nevada City	1.1	1.5	2.6	3.9	5.8	6.9	7.9	7.0	5.3	3.2	1.4	0.9	47.4
ORANGE													
Irvine	2.2	2.5	3.7	4.7	5.2	5.9	6.3	6.2	4.6	3.7	2.6	2.3	49.6
Laguna Beach	2.2	2.7	3.4	3.8	4.6	4.6	4.9	4.9	4.4	3.4	2.4	2.0	43.2
Santa Ana	2.2	2.7	3.7	4.5	4.6	5.4	6.2	6.1	4.7	3.7	2.5	2.0	48.2
PLACER													
Auburn	1.2	1.7	2.8	4.4	6.1	7.4	8.3	7.3	5.4	3.4	1.6	1.0	50.6
Blue Canyon	0.7	1.1	2.1	3.4	4.8	6.0	7.2	6.1	4.6	2.9	0.9	0.6	40.5
Colfax	1.1	1.5	2.6	4.0	5.8	7.1	7.9	7.0	5.3	3.2	1.4	0.9	47.9
Roseville	1.1	1.7	3.1	4.7	6.2	7.7	8.5	7.3	5.6	3.7	1.7	1.0	52.2
Soda Springs	0.7	0.7	1.8	3.0	4.3	5.3	6.2	5.5	4.1	2.5	0.7	0.7	35.4
Tahoe City	0.7	0.7	1.7	3.0	4.3	5.4	6.1	5.6	4.1	2.4	0.8	0.6	35.5
Truckee	0.7	0.7	1.7	3.2	4.4	5.4	6.4	5.7	4.1	2.4	0.8	0.6	36.2

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
PLUMAS													
Portola	0.7	0.9	1.9	3.5	4.9	5.9	7.3	5.9	4.3	2.7	0.9	0.5	39.4
Quincy	0.7	0.9	2.2	3.5	4.9	5.9	7.3	5.9	4.4	2.8	1.2	0.5	40.2
RIVERSIDE													
Beaumont	2.0	2.3	3.4	4.4	6.1	7.1	7.6	7.9	6.0	3.9	2.6	1.7	55.0
Blythe	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Cathedral City	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Coachella	2.9	4.4	6.2	8.4	10.5	11.9	12.3	10.1	8.9	6.2	3.8	2.4	88.1
Desert Center	2.9	4.1	6.4	8.5	11.0	12.1	12.2	11.1	9.0	6.4	3.9	2.6	90.0
Elsinore	2.1	2.8	3.9	4.4	5.9	7.1	7.6	7.0	5.8	3.9	2.6	1.9	55.0
Indio	3.1	3.6	6.5	8.3	10.5	11.0	10.8	9.7	8.3	5.9	3.7	2.7	83.9
La Quinta	2.4	2.8	5.2	6.5	8.3	8.7	8.5	7.9	6.5	4.5	2.7	2.2	66.2
Mecca	2.6	3.3	5.7	7.2	8.6	9.0	8.8	8.2	6.8	5.0	3.2	2.4	70.8
Oasis	2.9	3.3	5.3	6.1	8.5	8.9	8.7	7.9	6.9	4.8	2.9	2.3	68.4
Palm Desert	2.5	3.4	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.6
Palm Springs	2.0	2.9	4.9	7.2	8.3	8.5	11.6	8.3	7.2	5.9	2.7	1.7	71.1
Rancho California	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
Rancho Mirage	2.4	3.3	5.3	6.9	8.7	9.6	9.6	8.7	6.9	5.0	3.0	2.2	71.4
Ripley	2.7	3.3	5.6	7.2	8.7	8.7	8.4	7.6	6.2	4.6	2.8	2.2	67.8
Salton Sea North	2.5	3.3	5.5	7.2	8.8	9.3	9.2	8.5	6.8	5.2	3.1	2.3	71.7
Temecula East II	2.3	2.4	4.1	4.9	6.4	7.0	7.8	7.4	5.7	4.1	2.6	2.2	56.7
Thermal	2.4	3.3	5.5	7.6	9.1	9.6	9.3	8.6	7.1	5.2	3.1	2.1	72.8
Riverside UC	2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	56.4
~~Winchester~~	~~2.3~~	~~2.4~~	~~4.1~~	~~4.9~~	~~6.4~~	~~6.9~~	~~7.7~~	~~7.3~~	~~6.0~~	~~3.9~~	~~2.6~~	~~2.1~~	~~56.8~~
SACRAMENTO													
Fair Oaks	1.0	1.6	3.4	4.1	6.5	7.5	8.1	7.1	5.2	3.4	1.5	1.0	50.5
Sacramento	1.0	1.8	3.2	4.7	6.4	7.7	8.4	7.2	5.4	3.7	1.7	0.9	51.9
Twitchell Island	1.2	1.8	3.9	5.3	7.4	8.8	9.1	7.8	5.9	3.8	1.7	1.2	57.9
SAN BENITO													
Hollister	1.5	1.8	3.1	4.3	5.5	5.7	6.4	5.9	5.0	3.5	1.7	1.1	45.1
San Benito	1.2	1.6	3.1	4.6	5.6	6.4	6.9	6.5	4.8	3.7	1.7	1.2	47.2
San Juan Valley	1.4	1.8	3.4	4.5	6.0	6.7	7.1	6.4	5.0	3.5	1.8	1.4	49.1
SAN BERNARDINO													
Baker	2.7	3.9	6.1	8.3	10.4	11.8	12.2	11.0	8.9	6.1	3.3	2.1	86.6
Barstow NE	2.2	2.9	5.3	6.9	9.0	10.1	9.9	8.9	6.8	4.8	2.7	2.1	71.7
Big Bear Lake	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Chino	2.1	2.9	3.9	4.5	5.7	6.5	7.3	7.1	5.9	4.2	2.6	2.0	54.6
Crestline	1.5	1.9	3.3	4.4	5.5	6.6	7.8	7.1	5.4	3.5	2.2	1.6	50.8
Lake Arrowhead	1.8	2.6	4.6	6.0	7.0	7.6	8.1	7.4	5.4	4.1	2.4	1.8	58.6
Lucerne Valley	2.2	2.9	5.1	6.5	9.1	11.0	11.4	9.9	7.4	5.0	3.0	1.8	75.3
Needles	3.2	4.2	6.6	8.9	11.0	12.4	12.8	11.0	8.9	6.6	4.0	2.7	92.1
Newberry Springs	2.1	2.9	5.3	8.4	9.8	10.9	11.1	9.9	7.6	5.2	3.1	2.0	78.2
San Bernardino	2.0	2.7	3.8	4.6	5.7	6.9	7.9	7.4	5.9	4.2	2.6	2.0	55.6
Twentynine Palms	2.6	3.6	5.9	7.9	10.1	11.2	11.2	10.3	8.6	5.9	3.4	2.2	82.9
Victorville	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
SAN DIEGO													
Chula Vista	2.2	2.7	3.4	3.8	4.9	4.7	5.5	4.9	4.5	3.4	2.4	2.0	44.2
Escondido SPV	2.4	2.6	3.9	4.7	5.9	6.5	7.1	6.7	5.3	3.9	2.8	2.3	54.2
Miramar	2.3	2.5	3.7	4.1	5.1	5.4	6.1	5.8	4.5	3.3	2.4	2.1	47.1

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
SAN DIEGO													
Oceanside	2.2	2.7	3.4	3.7	4.9	4.6	4.6	5.1	4.1	3.3	2.4	2.0	42.9
Otay Lake	2.3	2.7	3.9	4.6	5.6	5.9	6.2	6.1	4.8	3.7	2.6	2.2	50.4
Pine Valley	1.5	2.4	3.8	5.1	6.0	7.0	7.8	7.3	6.0	4.0	2.2	1.7	54.8
Ramona	2.1	2.1	3.4	4.6	5.2	6.3	6.7	6.8	5.3	4.1	2.8	2.1	51.6
San Diego	2.1	2.4	3.4	4.6	5.1	5.3	5.7	5.6	4.3	3.6	2.4	2.0	46.5
Santee	2.1	2.7	3.7	4.5	5.5	6.1	6.6	6.2	5.4	3.8	2.6	2.0	51.1
Torrey Pines	2.2	2.3	3.4	3.9	4.0	4.1	4.6	4.7	3.8	2.8	2.0	2.0	39.8
Warner Springs	1.6	2.7	3.7	4.7	5.7	7.6	8.3	7.7	6.3	4.0	2.5	1.3	56.0
SAN FRANCISCO													
San Francisco	1.5	1.3	2.4	3.0	3.7	4.6	4.9	4.8	4.1	2.8	1.3	0.7	35.1
SAN JOAQUIN													
Farmington	1.5	1.5	2.9	4.7	6.2	7.6	8.1	6.8	5.3	3.3	1.4	0.7	50.0
Lodi West	1.0	1.6	3.3	4.3	6.3	6.9	7.3	6.4	4.5	3.0	1.4	0.8	46.7
Manteca	0.9	1.7	3.4	5.0	6.5	7.5	8.0	7.1	5.2	3.3	1.6	0.9	51.2
Stockton	0.8	1.5	2.9	4.7	6.2	7.4	8.1	6.8	5.3	3.2	1.4	0.6	49.1
Tracy	1.0	1.5	2.9	4.5	6.1	7.3	7.9	6.7	5.3	3.2	1.3	0.7	48.5
SAN LUIS OBISPO													
Arroyo Grande	2.0	2.2	3.2	3.8	4.3	4.7	4.3	4.6	3.8	3.2	2.4	1.7	40.0
Atascadero	1.2	1.5	2.8	3.9	4.5	6.0	6.7	6.2	5.0	3.2	1.7	1.0	43.7
Morro Bay	2.0	2.2	3.1	3.5	4.3	4.5	4.6	4.6	3.8	3.5	2.1	1.7	39.9
Nipomo	2.2	2.5	3.8	5.1	5.7	6.2	6.4	6.1	4.9	4.1	2.9	2.3	52.1
Paso Robles	1.6	2.0	3.2	4.3	5.5	6.3	7.3	6.7	5.1	3.7	2.1	1.4	49.0
San Luis Obispo	2.0	2.2	3.2	4.1	4.9	5.3	4.6	5.5	4.4	3.5	2.4	1.7	43.8
San Miguel	1.6	2.0	3.2	4.3	5.0	6.4	7.4	6.8	5.1	3.7	2.1	1.4	49.0
San Simeon	2.0	2.0	2.9	3.5	4.2	4.4	4.6	4.3	3.5	3.1	2.0	1.7	38.1
SAN MATEO													
Hal Moon Bay	1.5	1.7	2.4	3.0	3.9	4.3	4.3	4.2	3.5	2.8	1.3	1.0	33.7
Redwood City	1.5	1.8	2.9	3.8	5.2	5.3	6.2	5.6	4.8	3.1	1.7	1.0	42.8
Woodside	1.8	2.2	3.4	4.8	5.6	6.3	6.5	6.2	4.8	3.7	2.4	1.8	49.5
SANTA BARBARA													
Betteravia	2.1	2.6	4.0	5.2	6.0	5.9	5.8	5.4	4.1	3.3	2.7	2.1	49.1
Carpenteria	2.0	2.4	3.2	3.9	4.8	5.2	5.5	5.7	4.5	3.4	2.4	2.0	44.9
Cuyama	2.1	2.4	3.8	5.4	6.9	7.9	8.5	7.7	5.9	4.5	2.6	2.0	59.7
Goleta	2.1	2.5	3.9	5.1	5.7	5.7	5.4	5.4	4.2	3.2	2.8	2.2	48.1
Goleta Foothills	2.3	2.6	3.7	5.4	5.3	5.6	5.5	5.7	4.5	3.9	2.8	2.3	49.6
Guadalupe	2.0	2.2	3.2	3.7	4.9	4.6	4.5	4.6	4.1	3.3	2.4	1.7	41.1
Lompoc	2.0	2.2	3.2	3.7	4.8	4.6	4.9	4.8	3.9	3.2	2.4	1.7	41.1
Los Alamos	1.8	2.0	3.2	4.1	4.9	5.3	5.7	5.5	4.4	3.7	2.4	1.6	44.6
Santa Barbara	2.0	2.5	3.2	3.8	4.6	5.1	5.5	4.5	3.4	2.4	1.8	1.8	40.6
Santa Maria	1.8	2.3	3.7	5.1	5.7	5.8	5.6	5.3	4.2	3.5	2.4	1.9	47.4
Santa Ynez	1.7	2.2	3.5	5.0	5.8	6.2	6.4	6.0	4.5	3.6	2.2	1.7	48.7
Sisquoc	2.1	2.5	3.8	4.1	6.1	6.3	6.4	5.8	4.7	3.4	2.3	1.8	49.2
Solvang	2.0	2.0	3.3	4.3	5.0	5.6	6.1	5.6	4.4	3.7	2.2	1.6	45.6
SANTA CLARA													
Gilroy	1.3	1.8	3.1	4.1	5.3	5.6	6.1	5.5	4.7	3.4	1.7	1.1	43.6
Los Gatos	1.5	1.8	2.8	3.9	5.0	5.6	6.2	5.5	4.7	3.2	1.7	1.1	42.9
Morgan Hill	1.5	1.8	3.4	4.2	6.3	7.0	7.1	6.0	5.1	3.7	1.9	1.4	49.5
Palo Alto	1.5	1.8	2.8	3.8	5.2	5.3	6.2	5.6	5.0	3.2	1.7	1.0	43.0

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
SANTA CLARA													
San Jose	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3
SANTA CRUZ													
De Laveaga	1.4	1.9	3.3	4.7	4.9	5.3	5.0	4.8	3.6	3.0	1.6	1.3	40.8
Green Valley Rd	1.2	1.8	3.2	4.5	4.6	5.4	5.2	5.0	3.7	3.1	1.6	1.3	40.6
Santa Cruz	1.5	1.8	2.6	3.5	4.3	4.4	4.8	4.4	3.8	2.8	1.7	1.2	36.6
Watsonville	1.5	1.8	2.7	3.7	4.6	4.5	4.9	4.2	4.0	2.9	1.8	1.2	37.7
Webb	1.8	2.2	3.7	4.8	5.3	5.7	5.6	5.3	4.3	3.4	2.4	1.8	46.2
SHASTA													
Burney	0.7	1.0	2.1	3.5	4.9	5.9	7.4	6.4	4.4	2.9	0.9	0.6	40.9
Fall River Mills	0.6	1.0	2.1	3.7	5.0	6.1	7.8	6.7	4.6	2.8	0.9	0.5	41.8
Glenburn	0.6	1.0	2.1	3.7	5.0	6.3	7.8	6.7	4.7	2.8	0.9	0.6	42.1
McArthur	0.7	1.4	2.9	4.2	5.6	6.9	8.2	7.2	5.0	3.0	1.1	0.6	46.8
Redding	1.2	1.4	2.6	4.1	5.6	7.1	8.5	7.3	5.3	3.2	1.4	0.9	48.8
SIERRA													
Downieville	0.7	1.0	2.3	3.5	5.0	6.0	7.4	6.2	4.7	2.8	0.9	0.6	41.3
Sierraville	0.7	1.1	2.2	3.2	4.5	5.9	7.3	6.4	4.3	2.6	0.9	0.5	39.6
SISKIYOU													
Happy Camp	0.5	0.9	2.0	3.0	4.3	5.2	6.1	5.3	4.1	2.4	0.9	0.5	35.1
MacDoel	1.0	1.7	3.1	4.5	5.9	7.2	8.1	7.1	5.1	3.1	1.5	1.0	49.0
Mt Shasta	0.5	0.9	2.0	3.0	4.5	5.3	6.7	5.7	4.0	2.2	0.7	0.5	36.0
Tule lake FS	0.7	1.3	2.7	4.0	5.4	6.3	7.1	6.4	4.7	2.8	1.0	0.6	42.9
Weed	0.5	0.9	2.0	2.5	4.5	5.3	6.7	5.5	3.7	2.0	0.9	0.5	34.9
Yreka	0.6	0.9	2.1	3.0	4.9	5.8	7.3	6.5	4.3	2.5	0.9	0.5	39.2
SOLANO													
Benicia	1.3	1.4	2.7	3.8	4.9	5.0	6.4	5.5	4.4	2.9	1.2	0.7	40.3
Dixon	0.7	1.4	3.2	5.2	6.3	7.6	8.2	7.2	5.5	4.3	1.6	1.1	52.1
Fairfield	1.1	1.7	2.8	4.0	5.5	6.1	7.8	6.0	4.8	3.1	1.4	0.9	45.2
Hastings Tract	1.6	2.2	3.7	5.1	6.8	7.8	8.7	7.8	5.7	4.0	2.1	1.6	57.1
Putah Creek	1.0	1.6	3.2	4.9	6.1	7.3	7.9	7.0	5.3	3.8	1.8	1.2	51.0
Rio Vista	0.9	1.7	2.8	4.4	5.9	6.7	7.9	6.5	5.1	3.2	1.3	0.7	47.0
Suisun Valley	0.6	1.3	3.0	4.7	5.8	7.0	7.7	6.8	5.3	3.8	1.4	0.9	48.3
Winters	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
SONOMA													
Bennett Valley	1.1	1.7	3.2	4.1	5.5	6.5	6.6	5.7	4.5	3.1	1.5	0.9	44.4
Cloverdale	1.1	1.4	2.6	3.4	5.0	5.9	6.2	5.6	4.5	2.8	1.4	0.7	40.7
Fort Ross	1.2	1.4	2.2	3.0	3.7	4.5	4.2	4.3	3.4	2.4	1.2	0.5	31.9
Healdsburg	1.2	1.5	2.4	3.5	5.0	5.9	6.1	5.6	4.5	2.8	1.4	0.7	40.8
Lincoln	1.2	1.7	2.8	4.7	6.1	7.4	8.4	7.3	5.4	3.7	1.9	1.2	51.9
Petaluma	1.2	1.5	2.8	3.7	4.6	5.6	4.6	5.7	4.5	2.9	1.4	0.9	39.6
Santa Rosa	1.2	1.7	2.8	3.7	5.0	6.0	6.1	5.9	4.5	2.9	1.5	0.7	42.0
Valley of the Moon	1.0	1.6	3.0	4.5	5.6	6.6	7.1	6.3	4.7	3.3	1.5	1.0	46.1
Windsor	0.9	1.6	3.0	4.5	5.5	6.5	6.5	5.9	4.4	3.2	1.4	1.0	44.2
STANISLAUS													
Denair	1.0	1.9	3.6	4.7	7.0	7.9	8.0	6.1	5.3	3.4	1.5	1.0	51.4
La Grange	1.2	1.5	3.1	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Modesto	0.9	1.4	3.2	4.7	6.4	7.7	8.1	6.8	5.0	3.4	1.4	0.7	49.7
Newman	1.0	1.5	3.2	4.6	6.2	7.4	8.1	6.7	5.0	3.4	1.4	0.7	49.3
Oakdale	1.2	1.5	3.2	4.7	6.2	7.7	8.1	7.1	5.1	3.4	1.4	0.7	50.3

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
STANISLAUS													
Patterson	1.3	2.1	4.2	5.4	7.9	8.6	8.2	6.6	5.8	4.0	1.9	1.3	57.3
Turlock	0.9	1.5	3.2	4.7	6.5	7.7	8.2	7.0	5.1	3.4	1.4	0.7	50.2
SUTTER													
Nicolaus	0.9	1.6	3.2	4.9	6.3	7.5	8.0	6.9	5.2	3.4	1.5	0.9	50.2
Yuba City	1.3	2.1	2.8	4.4	5.7	7.2	7.1	6.1	4.7	3.2	1.2	0.9	46.7
TEHAMA													
Corning	1.2	1.8	2.9	4.5	6.1	7.3	8.1	7.2	5.3	3.7	1.7	1.1	50.7
Gerber	1.0	1.8	3.5	5.0	6.6	7.9	8.7	7.4	5.8	4.1	1.8	1.1	54.7
Gerber Dryland	0.9	1.6	3.2	4.7	6.7	8.4	9.0	7.9	6.0	4.2	2.0	1.0	55.5
Red Bluff	1.2	1.8	2.9	4.4	5.9	7.4	8.5	7.3	5.4	3.5	1.7	1.0	51.1
TRINITY													
Hay Fork	0.5	1.1	2.3	3.5	4.9	5.9	7.0	6.0	4.5	2.8	0.9	0.7	40.1
Weaverville	0.6	1.1	2.2	3.3	4.9	5.9	7.3	6.0	4.4	2.7	0.9	0.7	40.0
TULARE													
Alpaugh	0.9	1.7	3.4	4.8	6.6	7.7	8.2	7.3	5.4	3.4	1.4	0.7	51.6
Badger	1.0	1.3	2.7	4.1	6.0	7.3	7.7	7.0	4.8	3.3	1.4	0.7	47.3
Delano	1.1	1.9	4.0	4.9	7.2	7.9	8.1	7.3	5.4	3.2	1.5	1.2	53.6
Dinuba	1.1	1.5	3.2	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Lindcove	0.9	1.6	3.0	4.8	6.5	7.6	8.1	7.2	5.2	3.4	1.6	0.9	50.6
Porterville	1.2	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.3	3.4	1.4	0.7	52.1
Visalia	0.9	1.7	3.3	5.1	6.8	7.7	7.9	6.9	4.9	3.2	1.5	0.8	50.7
TUOLUMNE													
Groveland	1.1	1.5	2.8	4.1	5.7	7.2	7.9	6.6	5.1	3.3	1.4	0.7	47.5
Sonora	1.1	1.5	2.8	4.1	5.8	7.2	7.9	6.7	5.1	3.2	1.4	0.7	47.6
VENTURA													
Camarillo	2.2	2.5	3.7	4.3	5.0	5.2	5.9	5.4	4.2	3.0	2.5	2.1	46.1
Oxnard	2.2	2.5	3.2	3.7	4.4	4.6	5.4	4.8	4.0	3.3	2.4	2.0	42.3
Piru	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Port Hueneme	2.0	2.3	3.3	4.6	4.9	4.9	4.9	5.0	3.7	3.2	2.5	2.2	43.5
Thousand Oaks	2.2	2.6	3.4	4.5	5.4	5.9	6.7	6.4	5.4	3.9	2.6	2.0	51.0
Ventura	2.2	2.6	3.2	3.8	4.6	4.7	5.5	4.9	4.1	3.4	2.5	2.0	43.5
YOLO													
Bryte	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
Davis	1.0	1.9	3.3	5.0	6.4	7.6	8.2	7.1	5.4	4.0	1.8	1.0	52.5
Esparto	1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8
Winters	1.7	1.7	2.9	4.4	5.8	7.1	7.9	6.7	5.3	3.3	1.6	1.0	49.4
Woodland	1.0	1.8	3.2	4.7	6.1	7.7	8.2	7.2	5.4	3.7	1.7	1.0	51.6
Zamora	1.1	1.9	3.5	5.2	6.4	7.4	7.8	7.0	5.5	4.0	1.9	1.2	52.8
YUBA													
Browns Valley	1.0	1.7	3.1	4.7	6.1	7.5	8.5	7.6	5.7	4.1	2.0	1.1	52.9
Brownsville	1.1	1.4	2.6	4.0	5.7	6.8	7.9	6.8	5.3	3.4	1.5	0.9	47.4

* The values in this table were derived from:
1) California Irrigation Management Information System (CIMIS);
2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and
3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922;
4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Annual ETo*
SANTA CLARA													
Gilroy	1.3	1.8	3.1	4.1	5.3	5.6	6.1	5.5	4.7	3.4	1.7	1.1	43.6
Los Gatos	1.5	1.8	2.8	3.9	5.0	5.6	6.2	5.5	4.7	3.2	1.7	1.1	42.9
Morgan Hill	1.5	1.8	3.4	4.2	6.3	7.0	7.1	6.0	5.1	3.7	1.9	1.4	49.5
Palo Alto	1.5	1.8	2.8	3.8	5.2	5.3	6.2	5.6	5.0	3.2	1.7	1.0	43.0
San Jose	1.5	1.8	3.1	4.1	5.5	5.8	6.5	5.9	5.2	3.3	1.8	1.0	45.3

* The values in this table were derived from:
1) California Irrigation Management Information System (CIMIS);
2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and
3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922;
4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

APPENDIX B: WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the ~~P~~project ~~A~~applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) _____

Hydrozone # /Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (sq. ft,)	ETAF x Area	Estimated Total Water Use (ETWU)[e]
Regular Landscape Areas							
			Totals		(A)	(B)	
Special Landscape Areas							
				1			
				1			
				1			
				Totals	(C)	(D)	
			ETWU Total				
			Maximum Allowed Water Allowance (MAWA)[e]				

[a] ***Hydrozone #/Planting Description***
E.g
1.) front lawn
2.) low water use plantings
3.) medium water use planting

[b] ***Irrigation Method***
overhead spray or drip

[c] ***Irrigation Efficiency***
0.75 for spray head
0.81 for drip

[d] ***ETWU*** **(Annual Gallons Required) =**
Eto x 0.62 x ETAF x Area
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

[e] ***MAWA (Annual Gallons Allowed) =*** *(Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]*
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total Special Landscape Area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	**B ÷ A**

All Landscape Areas

Total ETAF x Area	(B+D)
Total Area	(A+C)
Sitewide ETAF	**(B+D) ÷ (A+C)**

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

~~**Reference Evapotranspiration (ETo)** _____~~

~~Hydrozone # /Planting Description[a]~~	~~Plant Factor (PF)~~	~~Irrigation Method[b]~~	~~Irrigation Efficiency (IE)[c]~~	~~ETAF (PF/IE)~~	~~Landscape Area (sq. ft,)~~	~~ETAF x Area~~	~~Estimated Total Water Use (ETWU)[e]~~
~~**Regular Landscape Areas**~~							

~~_____~~							
				~~Totals~~	~~(A)~~	~~(B)~~	
~~**Special Landscape Areas**~~							
				~~1~~			
				~~1~~			
				~~1~~			
				~~Totals~~	~~(C)~~	~~(D)~~	
			~~**ETWU Total**~~				
			~~**Maximum Allowed Water Allowance (MAWA)[e]**~~				

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

[e]***MAWA (Annual Gallons Allowed) = (****Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]*

where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total ~~S~~special ~~L~~landscape ~~A~~area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

~~ETAF Calculations~~

~~Regular Landscape Areas~~

~~Total ETAF x~~
~~Total Area~~
~~**Average ET**~~

~~A~~verage ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

~~All Landscape Areas~~

[a]***Hydrozone #/Planting Description***	[b]***Irrigation Method***	[c]***Irrigation Efficiency***	[d]***ETWU* (Annual Gallons Required) =**
E.g *1.) front lawn* *2.) low water use plantings* *3.) medium water use planting*	*overhead spray or drip*	*0.75 for spray head* *0.81 for drip*	*Eto x 0.62 x ETAF x Area* where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

APPENDIX C: CERTIFICATE OF COMPLETION

~~CITY OF SANTA CLARA~~ ~~CERTIFICATE OF COMPLETION & INSTALLATION~~ ~~SUBMIT TO THE WATER DEPARTMENT UPON COMPLETION OF THE LANDSCAPE PROJECT:~~ ~~1500 WARBURTON AVENUE, SANTA CLARA, CA 95050~~	
~~**PROJECT INFORMATION**~~	
~~DATE:~~	~~TELEPHONE~~
~~PROJECT NAME~~	~~EMAIL~~
~~APPLICANT NAME (PRINT):~~	~~STREET ADDRESS~~
~~TITLE~~	~~STATE~~
~~COMPANY~~	~~ZIP~~
~~**PROJECT OWNER - DECLARATION OF COMPLETION**~~	
~~**PROJECT OWNER NAME OR DESIGNEE:**~~	
~~**TITLE**~~	
~~**COMPANY**~~	
~~**I CERTIFY THAT I HAVE RECEIVED COPIES OF ALL THE DOCUMENTS ASSOCIATED WITH THE LANDSCAPE PROJECT AND THAT IT IS OUR RESPONSIBILITY TO SEE THAT THE PROJECT IS MAINTAINED IN ACCORDANCE WITH THE LANDSCAPE AND**~~	
~~PROPERTY OWNER SIGNATURE~~	~~DATE~~
~~**LICENSED PROFESSIONAL - DECLARATION OF INSTALLATION**~~	
~~**I CERTIFY THAT BASED UPON PERIODIC SITE OBSERVATIONS, THE WORK HAS BEEN SUBSTANTIALLY COMPLETED IN ACCORDANCE WITH THE ORDINANCE AND THAT THE LANDSCAPE PLANTING AND IRRIGATION INSTALLATION CONFORM**~~	
~~PRINT NAME AND COMPANY OF LANDSCAPE DESIGNER~~	~~SIGNATURE* ARCHITECT OR IRRIGATION~~
~~EMAIL ADDRESS~~	~~PHONE NUMBER~~
~~***SIGNER OF THE LANDSCAPE DESIGN PLAN, SIGNER OF THE IRRIGATION PLAN, OR A LICENSED LANDSCAPE CONTRACTOR.**~~	
~~**REQUIRED ATTACHMENTS:**~~	
~~IRRIGATION SCHEDULING~~ ~~**ATTACH PARAMETERS FOR SETTING THE IRRIGATION SCHEDULE ON CONTROLLER AS REQUIRED BY THE ORDINANCE.**~~ ~~SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE~~ ~~**ATTACH SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.**~~ ~~LANDSCAPE IRRIGATION AUDIT REPORT~~ ~~**ATTACH LANDSCAPE IRRIGATION AUDIT REPORT AS REQUIRED BY THE MWELO ORDINANCE.**~~ ~~SOIL MANAGEMENT REPORT/SOIL MANAGEMENT AND GRADING DESIGN SURVEY~~ ~~**ATTACH SOIL ANALYSIS REPORT OR SOIL MANAGEMENT AND GRADING DESIGN SURVEY, IF NOT PREVIOUSLY SUBMITTED WITH THE LANDSCAPE DOCUMENTATION PACKAGE AS REQUIRED BY THE ORDINANCE. ATTACH DOCUMENTATION VERIFYING IMPLEMENTATION OF RECOMMENDATIONS FROM SOIL ANALYSIS REPORT AS REQUIRED.**~~	

CITY OF SANTA CLARA CERTIFICATE OF COMPLETION & INSTALLATION SUBMIT TO THE COMMUNITY DEVELOPMENT DEPARTMENT UPON COMPLETION OF THE LANDSCAPE PROJECT: 1500 WARBURTON AVENUE, SANTA CLARA, CA 95050		
PROJECT INFORMATION		
Name	Date	
Site Address	Parcel, tract or lot number:	
City	State	Zip Code
APPLICANT INFORMATION		
Name	Tel.	
Title	Email	
Company	Street Address	
City	State	Zip Code
PROPERTY OWNER or their DESIGNEE (if different from Project Applicant)		
Name	Tel.	
Title	Email	
Company	Street Address	
City	State	Zip Code
"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion andthat it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."		
Signature		Date
DOCUMENT(S)		**DATE**
Landscape Documentation Package submitted to Community Development Department		
Landscape Documentation Package approved by Community Development Department		
Water Efficient Landscape Worksheet submitted to Water & Sewer Utilities		
CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE		
"I/we certify that based upon periodic site observations, the work has been completed in accordance with the ordinance and that the landscapeplanting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package."		
Signature*		Date
*Signer of the landscape design plan, signer of the irrigation plan, or a licensed Landscape Contractor.		
Name	Tel.	
Title	Email Address	
License Number or Certification Number		
Company	Street Address	
City	State	Zip Code
REQUIRED ATTACHMENTS		
IRRIGATION SCHEDULING	Per Rules and Regulations Section 23.M.	
LANDSCAPE & IRRIGATION MAINTENANCE SCHEDULE	Per Rules and Regulations Section 23.N.	
LANDSCAPE IRRIGATION AUDIT REPORT	Per Rules and Regulations Section 23.O.	
SOIL MANAGEMENT REPORT (if not submitted with the Landscape Documentation Package)	Attach verification that the recommendations from the Soil Analysis Report were implemented, per Rules and Regulations Section 23.I.	

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

APPENDIX D: PRESCRIPTIVE COMPLIANCE OPTION

(a) This appendix contains prescriptive requirements which may be used as a compliance option to the Model Water Efficient Landscape Ordinance.

(b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:

(1) Submit a Landscape Documentation Package which includes the following elements:

(A) date

(B) P~~p~~roject A~~a~~pplicant

(C) project address (if available, parcel and/or lot number(s))

(D) total L~~l~~andscape A~~a~~rea (square feet), including a breakdown of T~~t~~urf and plant material

(E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)

(F) water supply type (e.g., potable, recycled, well) and identify the L~~l~~ocal R~~r~~etail W~~w~~ater P~~p~~urveyor if the Project A~~a~~pplicant is not served by a private well

(G) contact information for the P~~p~~roject A~~a~~pplicant and property ~~o~~Owner

(H) Project A~~a~~pplicant signature and date with statement, “I agree to comply with the requirements of the prescriptive compliance option to the MWELO”.

(2) Incorporate C~~c~~ompost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches (6”) into L~~l~~andscape A~~a~~rea (unless contra-indicated by a soil test);

(3) Plant material shall comply with all of the following;

(A) For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS P~~p~~lant F~~f~~actor 0.3) for 75% of the plant area excluding edibles and areas using R~~r~~ecycled W~~w~~ater; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS P~~p~~lant F~~f~~actor 0.3) for 100% of the plant area excluding edibles and areas using R~~r~~ecycled W~~w~~ater;

(B) A minimum three-inch (3″) layer of M~~m~~ulch shall be applied on all exposed soil surfaces of planting areas except in T~~t~~urf areas, creeping or rooting groundcovers, or direct seeding applications where M~~m~~ulch is contraindicated.

(4) Turf shall comply with all of the following:

(A) Turf shall not exceed 25% of the L~~l~~andscape A~~a~~rea in residential areas, and there shall be no T~~t~~urf in non-residential areas;

(B) Turf shall not be planted on sloped areas which exceed a slope of ~~1~~ one-foot (1’) vertical elevation change for every ~~4~~ four feet (4’) of horizontal length;

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

(C) Turf is prohibited in P~~p~~arkways less than ~~10~~ ten feet (10') wide, unless the P~~p~~arkway is adjacent to a parking strip and used to enter and exit vehicles. Any T~~t~~urf in P~~p~~arkways must be irrigated by sub-surface irrigation or by other technology that creates no O~~o~~verspray or R~~r~~unoff.

(5) Irrigation systems shall comply with the following:

(A) Automatic I~~i~~rrigation C~~c~~ontrollers are required and must use evapotranspiration or S~~s~~oil M~~m~~oisture S~~s~~ensor data and utilize a R~~r~~ain S~~s~~ensor.

(B) Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

(C) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

(D) 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.

(E) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All S~~s~~prinkler H~~h~~eads installed in the landscape must document a D~~d~~istribution U~~u~~niformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

(F) Areas less than ten ~~(10)~~ feet (10') in width in any direction shall be irrigated with subsurface irrigation or other means that produces no R~~r~~unoff or O~~o~~verspray.

(6) For non-residential projects with L~~l~~andscape A~~a~~reas of 1,000 sq. ft. or more, a private S~~s~~ubmeter(s) to measure landscape water use shall be installed.

(c) At the time of final inspection, the P~~permit~~roject A~~a~~pplicant must provide the O~~o~~wner of the property with a C~~c~~ertificate of C~~c~~ompletion with ~~, certificate~~ certification of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

APPENDIX E: WELO LANDSCAPE DOCUMENTATION PACKAGE CHECKLIST

City of Santa Clara
The Center of What's Possible

Water Efficient Landscape Ordinance (WELO) Landscape Documentation Package Checklist

The following six Landscape Documentation Package components are required by California Code of Regulations, Title 23, Division 2, Chapter 2.7 Model Water Efficient Landscape Ordinance and by the City of Santa Clara Water Service and Use Rules and Regulations.

☐ **1. REQUIRED PROJECT INFORMATION:**

Date			
Project Applicant			
Address & Parcel/Lot #			
Landscape Area		square feet	
Project Type	☐New ☐Rehabilitated ☐Public ☐Private ☐Cemetery ☐Homeowner installed		
Water Supply Type	☐Potable ☐Recycled ☐Well		
Water Purveyor	☐City of Santa Clara ☐Valley Water (private well)		
Landscape Documentation Package Checklist			
Contact:		Email	Telephone
Project Applicant			
Property Owner			
Project Applicant Signature Date:		"I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."	

Attach the following to this Landscape Documentation Package checklist:

☐ **2. WATER EFFICIENT LANDSCAPE WORKSHEET**
☐ **3. SOIL MANAGEMENT REPORT** (if significant mass grading is not planned)
☐ **4. LANDSCAPE DESIGN PLAN**
☐ **5. IRRIGATION DESIGN PLAN**
☐ **6. GRADING DESIGN PLAN**

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~APPENDIX E: SOIL AND GRADING DESIGN SURVEY~~

~~Project Name:~~
~~Project Location:~~
~~Project Lot Size:~~
~~Site Analysis Completed By:~~

~~Signature Date~~
~~This soil analysis and grading report form is designed to assist the applicant in reviewing existing conditions at their project site and evaluate opportunities to maximize benefits. Respond to the following questions, and submit a report detailing geographic features surrounding the site, topography, vegetation and other site features as directed below.~~

~~**Soil Management Survey**~~

~~☐ Laboratory soil analysis results are attached.~~

~~OR answer the following questions:~~

~~**1.** What is the infiltration rate in inches per hour for the site soil type?~~
~~(Instructions – in a minimum of three distinct locations dig a hole that would accommodate planting a 5-gallon plant. Fill hole with water and let drain. Fill hole again and measure the depth of the water in the hole and record the time it takes to infiltrate totally into the soil with no remaining standing water. Note the time of year and the level of existing soil saturation by touch).~~

~~**2.** What is the primary project site soil texture? (Example – clay, loam, silt, sand, etc)~~

~~**3.** What is the soil color at 2 inches depth? What is the color at 6 inches? What is the color at 12 inches? (Example – black, dark or light brown, red, gold, gray, blue, etc)~~

~~(a)~~
~~**4.** Has the site been previously or historically contaminated with toxic materials?~~

~~Comments:~~

WATER EFFICIENT LANDSCAPE ORDINANCE (Continued)

~~**Grading Design Survey**~~

~~☐ Grading Design Plan is attached.~~

~~OR answer the following questions:~~

~~**1.** Does the stormwater runoff from the site discharge to (check all that apply):~~
~~☐ Indirectly to waters of the U.S. (i.e. discharge flows overland across adjacent properties or rights-of-way prior to discharging into water of the United States)~~
~~☐ Storm drain system~~
~~☐ Directly to the water of the U.S. (e.g. river, lake, creek, stream, bay, ocean, etc.)~~
~~(b)~~
~~**2.** Has a stormwater pollution prevention plan been prepared for this site?~~
~~☐ Yes~~
~~☐ No~~
~~(c)~~
~~**3.** Is there potential for filtering or infiltrating stormwater in the landscape areas (e.g. grassy swales, infiltration planters, bioretention areas)?~~
~~☐ Yes~~
~~☐ No~~
~~(d)~~
~~**4.** Is there potential to store rainwater for future use?~~
~~☐ Yes~~
~~☐ No~~
~~(e)~~
~~**5.** Is the proposed site within a 100 year floodplain?~~
~~☐ Yes~~
~~☐ No~~
~~(f)~~
~~**6.** Is a creek protection plan required for this site?~~
~~☐ Yes~~
~~☐ No~~
~~Commen~~