



AGENDA REPORT

Meeting of the San Marcos Planning Commission

MEETING DATE: April 3, 2017

SUBJECT: Zoning Ordinance Text Amendment to amend Chapters 20.330, 20.600 and Table of Contents of the City's Zoning Ordinance to comply with the State of California's Model Water Efficient Landscape Ordinance

Project No.: P16-0010 (TA16-002)

Recommendation

Recommend to the City Council approval and adoption of the subject Text Amendment to the Zoning Ordinance to update the City's Water Efficient Landscape Standards (Chapter 20.330), associated definitions (Chapter 20.600) and Table of Contents; and to make the determination under the requirements of the California Environmental Quality Act (CEQA) that this is not a project within the meaning of Section 15378 of CEQA Guidelines. If this Ordinance is found to be subject to CEQA, it is exempt from CEQA pursuant to Section 15061(b)(3) of CEQA Guidelines.

Introduction

The State of California approved and adopted the revised Model Water Efficient Landscape Ordinance (MWELO) on July 15, 2015 to promote the conservation and efficient use of water and to prevent the waste of this valuable resource in the state. Subsequent to the State's adoption of MWELO, all local jurisdictions in the State, including the City of San Marcos must incorporate the amended water efficiency requirements in local ordinances to implement the MWELO. The State's MWELO went into effect by default on December 1, 2015. Any landscaping permits that are currently processed in the City are subject to the City's current Landscape Ordinance (Chapter 20.330 of the Zoning Ordinance) and also to the State's MWELO.

The proposed Text Amendment TA 16-0002 will implement the State's requirements by incorporating new regulations in the Zoning Ordinance in Chapters 20.330 and 20.600. Chapter 20.330 of the City's Zoning Ordinance contains regulations related to Water Efficient Landscape



Standards and Chapter 20.600 is the “Definitions” chapter. The proposed amendment will only amend and update the definitions that are related to MWELO in compliance with the State law.

Discussion

The Zoning Ordinance’s Chapters 20.330, 20.660 and Table of Contents are proposed to be amended to implement the State’s MWELO. The current Chapter 20.330 – Water Efficient Landscape Standards, is proposed to be replaced in its entirety with the new Chapter 20.330. The amendments to this Chapter include incorporation of updates to implement the State’s MWELO and also re-numbering and re-formatting of current sections/standards to present the information in a user friendly format. The current Chapter 20.330 is attached to this report as Attachment B.

The related definitions of landscaping terms that are incorporated in Chapter 20.600 of the Zoning Ordinance are also amended to reflect changes pursuant to MWELO/current State requirements.

The Table of Contents of the Zoning Ordinance will also be updated to reflect the changes incorporated in the new Chapter 20.330 (including the expanded subsections created with the update).

Significant revisions to the City’s WELO Ordinance/Chapter 20.330 are described below:

Projects subject to Water Efficient Landscape Standards: The size of new landscape projects subject to the Ordinance (Section 20.330.020) has been lowered from 2,500 sq. ft. to 500 sq. ft. The size threshold applies to residential, commercial, industrial and institutional projects that require a permit, plan check or design review. Certain exemptions from the previous WELO are no longer applicable under the new WELO such as landscaping provided by a Community Facilities District and homeowner provided landscapes of less than 2,500 square feet.

Standards have also been established to allow an option of “Prescriptive Compliance” for projects that are between 500 and 2,500 square feet. This option was created to provide a streamlined/less complex approach to preparing landscape designs. Landscapes within this size range can either show compliance with standards through the traditional MWELO approach or through the “Prescriptive Compliance” approach, which will be explained later in this report.



The size threshold for existing landscapes that are being rehabilitated has not changed (remaining at 2,500 square feet). Only rehabilitated landscapes that are associated with a building or landscape permit, plan check, or design review are subject to the Ordinance.

Water Allowances/ Water Budget: To show compliance with the City's current WELO, the landscape permits submitted to the City for review are required to include water budget calculations (Section 20.330.060). The water budget calculations/Maximum Applied Water Allowance (MAWA) will remain part of landscape permit submittal, however, the proposed revisions to WELO include lower Maximum Applied Water Allowance (MAWA) for both residential and non-residential projects. For residential projects, the allowed water allowance is reduced from 70% to 55% of the reference calculation factor and for a non-residential project it is reduced to 45%. This water allowance reduces the landscape area that can be planted with high water use plants such as cool season turf. According to the State's Department of Water Resources, reduction in the MAWA reduces the percentage of landscape area that can be planted with high water use plants from 33% to 25% for a typical residential project.

In non-residential landscapes, planting with high water use plants may not be feasible. However, the extra water allowance made for non-residential areas when used for specific functional areas such as recreation and edible gardens remains unchanged. Extra water allowance is also made for landscapes irrigated with recycled water, as was the case in the previous Ordinance.

Other technical changes to calculation of water budget include the following:

- The worksheets for Maximum Applied Water Allowance (MAWA) and the Estimated Total Water Use (ETWU) have been combined into one table included in the City's landscape application packet, attached to this report as Attachment C.
- Rather than using a site-wide default irrigation efficiency, it now has to be calculated for each hydrozone of the landscaped area. The irrigation efficiency of devices used to irrigate landscapes is one of the factors that goes into determining the maximum amount of water allowed. Rather than having one default irrigation efficiency calculation for the entire site, the revised Ordinance now allows the irrigation efficiency to be calculated for each area of the landscape.

Pursuant to revised standards, street medians cannot be landscaped with high water use plants, thereby precluding the use of cool season turf. The revised standards also require that areas less than ten feet wide be irrigated with subsurface irrigation or other means that produces no runoff or overspray. This requirement also limits the use of cool season turf in parkways.



Landscape Design Plan: Additional details are added (Section 20.330.060) on soil preparation and use of mulch that result in less water use for plant material.

Soil Management Report: For multi-lot projects, clarification is added that specifies that soil testing should be completed using a soil sampling rate of approximately 1 in 7 lots or 15 percent of the site (Section 20.330.060).

Irrigation Design: The following amendments are included in the Irrigation Design section (Section 20.330.060):

- Dedicated landscape water meters or submeters are required for residential landscapes over 5,000 square feet and non-residential landscapes over 1,000 square feet.
- Irrigation systems are required to have pressure regulation to ensure correct and efficient operation.
- Flow sensors that detect and report high flow conditions due to broken pipes and/or popped sprinkler heads are required for landscape areas greater than 5,000 square feet.
- Master shut-off valves that prevent water waste in case of large failures of irrigation systems due to breakage or vandalism are required on all landscapes except where sprinklers can be individually controlled.
- Areas less than 10 feet wide must be irrigated with subsurface drip or other technology that produces no over spray or runoff.
- The “irrigation auditor” must be a City appointed auditor or a third party auditor to reduce conflicts of interest. Currently the Ordinance does not specify this requirement.

Graywater Systems: A graywater section (Section 20.330.130) has been added to the Ordinance to specify that landscapes less than 2,500 square feet that are irrigated entirely with graywater or captured rainwater are subject only to the irrigation system requirements of Prescriptive Compliance Option. This section will only be applicable if a project is using graywater system.

Stormwater Management and Rainwater Retention: The proposed text amendments include voluntary storm water best management practices (Section 20.330.140) to minimize runoff and increase on-site rainwater retention. These measures are included in the Ordinance as recommended actions, but are not required. It is, however, required that all landscape areas have friable soil to maximize storm water infiltration and four yards of compost per 1,000 sq. ft. of area are required to be incorporated.

Reporting Requirements: The City is now required to report the status of implementation of this Ordinance to the State’s Department Of Water Resources (Section 20.330.180) on an annual basis. The annual reporting is due by January 31st of each year. This report quantifies



the area of land that was improved with WELO compliant landscaping during the reporting period. Specifically the City's reporting includes number and type of projects subject to the Ordinance, total area in square feet subject to the Ordinance and number of housing starts, new commercial projects and landscape retrofits.

Certificate of Completion: A provision is now added to the current requirement of "Certificate of Completion" (Section 20.330.070) to include irrigation plan showing hydrozones. Since irrigation efficiency is now calculated for each hydrozone, the plan assists in showing how each hydrozone is irrigated.

Prescriptive Compliance Checklist Option: To simplify compliance for projects with landscape areas less than 2,500 sq. feet, the new Ordinance provides an option of a set of prescriptive measures that are referred to as "Prescriptive Compliance" option. This option is a relatively simpler option to achieve compliance with WELO. The submittal requirements for landscape permits under this option do not include more detailed analysis required for larger landscape area such as calculations to show water efficiency of the proposed landscaping, soil management reports and grading design plan. The "Prescriptive Compliance" checklist and form are included in the City's landscape compliance application packet, attached to this report as Attachment C.

Projects that choose this option have to incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches; plant materials for 75% of residential landscape areas that require little or no summer water (excluding edibles); plant materials for 100% of non-residential areas that require little or no summer water (excluding edibles); and a minimum mulch layer of 3 inches has to be applied in all planting areas.

Additional limitations on use of turf and irrigation design for projects that choose prescriptive compliance option include the following:

- Turf cannot exceed 25% of landscaping area in residential projects and it is not allowed in non-residential projects; it cannot be planted on slopes that exceed 1 foot vertical change for every 4 feet of horizontal length; and it is also prohibited in parkways that are less than 10 feet wide.



- Irrigation systems are required to have automatic irrigation controllers with rain sensors. They are required to be a type that does not lose programming in the event of a power outage and manual shutoff valves must be installed close to the point of connection of the water supply.

Current Provisions of WELO: The following provisions are incorporated in the City's current Chapter 20.330 and are either only re-formatted or updated with minor revisions in compliance with the State's MWELO in the proposed Zoning Ordinance Text Amendment.

- New language is added to the "Purpose of the Chapter" (Section 20.330.010) in compliance with MWELO.
- The Landscape Design Standards (Section 20.330.040) that include general design standards and those that are specifically applicable to residential zones, R-MHP zone and parking areas remain the same and no amendments are proposed to these provisions.
- No substantial change is proposed to Landscape Permit/Document Package Submittal Milestones (Section 20.330.050). A clarification is added that the landscape audit shall not be conducted by the person who designed or installed the landscape.
- There are no substantial changes proposed to submittal packet for Landscape Permits (Section 20.330.060) with the exception of how water budgets are calculated, as stated previously in this report and the provision of prohibiting high water use plants in street medians.
- There are no significant changes to Irrigation Scheduling section (Section 20.330.080) except that the overhead irrigation is now limited to 8:00 p.m. to 10:00 a.m. The current WELO allows 6:00 p.m. to 10:00 a.m.
- There are no substantial changes proposed to Landscape and Irrigation Maintenance Schedule (Section 20.330.090), Irrigation Efficiency (Section 20.330.110), Recycled Water (Section 20.330.120), Public Education (Section 20.330.150), Provisions for Existing Landscapes (Section 20.330.160), Landscape Bonds (Section 20.330.190), Violations and Penalties (Section 20.330.200), Waiver Application and Review Process (Section 20.330.210), Conflict Enforcement and Interpretations (Section 20.330.220) and Appeal Process (Section 20.330.230) sections of the WELO.

In Conclusion, staff recommends that the Planning Commission recommend approval and adoption of the proposed Zoning Ordinance Text Amendment to the City Council to bring the City's WELO in compliance with State law. The adoption of this Ordinance will make it easier for project applicants to find regulations that pertain to water efficient landscaping in one



comprehensive source. Project applicants for Landscape Permits currently have to show compliance with the State law and also the City's WELO, which requires the applicant to review two sources of regulations.

It is estimated by the State's Department of Water Resources that a typical California landscape will use 20% less water after implementing these new provisions, resulting in substantial water savings.

Environmental

The proposed Text Amendment has been reviewed for compliance with the California Environmental Quality Act (CEQA) and it has been determined that this is not a project within the meaning of Section 15378 of the CEQA Guidelines because there is no potential for it to result in a physical change in the environment, either directly or indirectly. Even if the proposed Text Amendment was considered a project subject to CEQA, it would be exempt from CEQA pursuant to Section 15061(b)(3) of the CEQA Guidelines because it can be seen with certainty that there is no possibility that the proposed amendment to the Zoning Ordinance would have a significant effect on the environment.

Public Comment

A public notification of the project occurred in accordance with California Government Code 65091 and San Marcos Municipal Code (SMMC) Section 20.505.030 (Noticing for Public Hearings). No public comments have been received regarding the project.

Attachment(s)

A – Adopting Resolution PC 16-4551 (Zoning Ordinance Text Amendment 16-002)

B – Current San Marcos Municipal Code Chapter 20.330

C – City's Landscape Compliance Application Packet

Prepared by:



Saima Qureshy, AICP, Principal Planner

Approved by:



Karen Brindley, Planning Division Manager

AGENDA ITEM NO. _____



Submitted by:

h. [signature] for
Dahvia Lynch, Development Services Director

AGENDA ITEM NO. 3



ATTACHMENT A
Adopting PC Resolution PC 16-4551

RESOLUTION PC 17-4619

A RESOLUTION OF THE CITY OF SAN MARCOS PLANNING COMMISSION RECOMMENDING TO THE CITY COUNCIL APPROVAL AND ADOPTION OF A ZONING ORDINANCE TEXT AMENDMENT TO UPDATE THE CITY'S WATER EFFICIENT LANDSCAPE STANDARDS (CHAPTER 20.330) BY REPLACING CHAPTER 20.330 IN ITS ENTIRETY WITH THE UPDATED CHAPTER 20.330, UPDATING THE "DEFINITIONS" CHAPTER (CHAPTER 20.600) AND "TABLE OF CONTENTS" TO IMPLEMENT THE STATE OF CALIFORNIA'S UPDATED MODEL WATER EFFICIENT LANDSCAPE ORDINANCE

Project No.: P16-0010 (TA 16-002)

Applicant: City of San Marcos

WHEREAS, the City of San Marcos adopted the Water Efficient Landscape Ordinance in 2010 to comply with and implement the State's Model Water Efficient Landscape Ordinance; and

WHEREAS, the City adopted its comprehensive Zoning Ordinance update in December, 2012, inclusive of the Water Efficient Landscape Ordinance; and

WHEREAS, on July 15, 2015 the State of California adopted revised Model Water Efficient Landscape Ordinance (MWELo); and

WHEREAS, the MWELo became effective by default on December 1, 2015; and

WHEREAS, the City of San Marcos is incorporating the requirements of the MWELo in the City's Municipal Code by amending Chapters 20.330, 20.600 and Table of Contents of its Zoning Ordinance; and

WHEREAS, the Development Services Department did study said request and recommends approval of said request; and

WHEREAS, the required public hearing held on April 3, 2017 was duly advertised and held in the manner prescribed by law; and

WHEREAS, the Planning Commission did consider that the proposed Text Amendment is not a project within the meaning of Section 15378 of the California Environmental Quality Act (CEQA) Guidelines because there is no potential for it to result in a physical change in the environment, either directly or indirectly. In the event this Ordinance is found to be subject to CEQA, it is exempt from CEQA pursuant to the exemption contained in CEQA Guidelines Section 15061(b)(3) because it can be seen with certainty that there is no possibility of a significant effect on the environment; and

WHEREAS, the Planning Commission's decision is based on the following findings and determinations:

1. The proposed Text Amendment to Title 20 (Zoning Ordinance) of the San Marcos Municipal Code will not impact the implementation of the General Plan in that the proposed Text Amendment does not conflict with any goals, objectives, or policies of the General Plan. The amendment is consistent with the General Plan in that the revised Water Efficient Landscape Ordinance will incorporate amendments in the Municipal Code to make it consistent with the State's MWEL. The state's MWEL standards for landscaping recognize that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use. No other changes are proposed to the Zoning Ordinance other than compliance with the State's MWEL.
2. The proposed amendment to Title 20 (Zoning Ordinance) of the San Marcos Municipal Code will not be detrimental to the public health, safety, morals, and welfare in that the Text Amendment will establish standards and requirements in compliance with the State law related to installation of landscaping for certain qualifying projects and update the associated definitions as included in the MWEL. The Text Amendment promotes landscaping practices that incorporate efficient use of water and discourages waste of this valuable resource.

NOW, THEREFORE, the Planning Commission resolves as follows:

1. The foregoing recitals are true and correct.
2. This Zoning Ordinance Text Amendment, as specified in Attachment "A" is hereby recommended to the City Council for approval and adoption. The Text Amendment includes repeal of Chapter 20.330 of the San Marcos Municipal Code in its entirety and its replacement with the proposed Chapter 20.330, revisions/updates to Definitions/ Chapter 20.600 and update of "Table of Contents" for consistency with the proposed changes to Chapter 20.330.
3. This is not a project within the meaning of Section 15378 of the California Environmental Quality Act (CEQA) Guidelines because there is no potential for it to result in a physical change in the environment, either directly or indirectly. In the event this Resolution is found to be subject to CEQA, it is exempt from CEQA pursuant to the exemption contained in CEQA Guidelines Section 15061(b)(3) because it can be seen with certainty that there is no possibility of a significant effect on the environment.

PASSED AND ADOPTED by the Planning Commission of the City of San Marcos, State of California, at a regular meeting thereof, this 3rd day of April, 2017, by the following roll call vote:

AYES:

NOES:

ABSENT:

APPROVED:

Steve Kildoo, Vice Chairman
SAN MARCOS CITY PLANNING COMMISSION

ATTEST:

Lisa Kiss, Office Specialist III
SAN MARCOS CITY PLANNING COMMISSION

Attachment: Attachment "A" Proposed Changes to Title 20 of the San Marcos Municipal Code

ATTACHMENT A

Additions are shown as underlines and deletions are shown as ~~striketrough~~

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Proposed Chapter 20.330 of Title 20 of the San Marcos Municipal Code (SMMC).
(The current Chapter 20.330 is proposed to be replaced in its entirety)

CHAPTER 20.330 WATER EFFICIENT LANDSCAPE STANDARDS

Sections:

Section 20.330.010	Purpose of Chapter
Section 20.330.020	Applicability
Section 20.330.030	Water Purveyor Responsibility
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Section 20.330.230	Appeal Process

Section 20.330.010 Purpose of Chapter

The purpose of this chapter is to establish responsible landscape standards that promote the quality of life in the community and provide areas for active and passive recreation and aesthetic enjoyment and enchantment. Specifically, the provisions of this chapter are intended to do the following:

- A. Implement the State's Model Water Efficient Landscape Ordinance; Chapter 2.7 of California Code of Regulations, adopted by the State in July, 2015, by amending the City's Water Efficient Landscape Ordinance, which was originally adopted by the City Council in 2010, to effectively conserve water, promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;

- B. 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;
- C. Establish provisions for water management practices and water waste prevention for existing landscapes;
- D. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount;
- E. Establish specific standards for landscape and irrigation design and installation to ensure beneficial, efficient, and responsible use of all available water resources for residences and businesses within the City.
- F. Implement a variety of landscaping objectives, including preventing erosion; filtering, treating, and using storm water runoff; and offering fire protection.
- G. Promote landscaping design, pH level, installation, maintenance, and management of landscaping that is water efficient.
- H. Establish that the right to use water is limited to the amount reasonably required for the beneficial use to be served, and shall not extend to waste or unreasonable method of use.
- I. Landscapes that are planned, designed, installed, managed and maintained with the watershed based approach can improve environmental conditions and provide benefits and realize sustainability goals. Such landscapes will make the urban environment resilient in the face of climatic extremes. Consistent with this approach to landscape designs, conditions in the urban setting will be improved by:
 - 1. Creating the conditions to support life in the soil by reducing compaction, incorporating organic matter that increases water retention, and promoting productive plant growth that leads to more carbon storage, oxygen production, shade, habitat and esthetic benefits.
 - 2. Minimizing energy use by reducing irrigation water requirements, reducing reliance on petroleum based fertilizers and pesticides, and planting climate appropriate shade trees in urban areas.
 - 3. Conserving water by capturing and reusing rainwater and graywater wherever possible and selecting climate appropriate plants that need minimal supplemental water after establishment.
 - 4. Protecting air and water quality by reducing power equipment use and landfill disposal trips, selecting recycled and locally sourced materials, and using compost, mulch and efficient irrigation equipment to prevent erosion.

5. Protecting existing habitat and creating new habitat by choosing local native plants, climate adapted non-natives and avoiding invasive plants. Utilizing integrated pest management with least toxic methods as the first course of action.

Section 20.330.020 Applicability

- A. The provisions of this chapter shall apply to all of the following landscape projects:
 1. New construction projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review;
 2. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review;
 3. Existing landscapes are limited to Sections 20.330.030 (Water Purveyor Responsibility), 20.330.160 (Provisions for Existing Landscapes).
 4. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to the requirements of Sections 20.330.060 (B) (Water Efficient Landscape Worksheet), 20.330.090 (Landscape and Irrigation Maintenance Schedule), and 20.330.100 (Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis); and existing cemeteries are limited to Section 20.330.160 (Provisions for Existing Landscapes).
- B. Any project with an aggregate landscape 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 "Prescriptive Compliance Option" which is included in the Landscape Application form provided by the City.
- C. 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 sq. ft. of landscape and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with treated or untreated graywater or through stored rainwater captured on site is subject only to "Prescriptive Compliance Option - Section (5)".
- D. **Exemptions.** The following projects and landscapes shall be exempt from the provisions of this chapter:
 1. Registered local, state, or federal historical sites.
 2. Ecological restoration projects that do not require a permanent irrigation system.
 3. Mined-land reclamation projects that do not require a permanent irrigation system.
 4. Existing plant collections as part of a botanical gardens and arboretums open to the public.

Section 20.330.030 Water Purveyor Responsibility

The City may designate the local retail water purveyors, to implement some or all of the requirements contained in this chapter. The City may collaborate with water purveyors to define each entity's specific responsibility relating to this chapter.

Section 20.330.040 Landscape Standards

Landscaping shall be required in a manner that beautifies the community, supports the purposes of this Chapter, and uses water in an efficient and responsible manner. Landscape areas and materials shall be designed, installed, and properly maintained in compliance with this chapter and the following standards.

- A. **General Standards Applicable to All Zones.** All landscape areas shall be as follows:
1. Planned as an integral part of the overall project design and not simply located in excess space after structures and parking areas have been planned.
 2. Designed in a manner considerate of pedestrian access to sidewalks and structures.
 3. A minimum width of five (5) feet to properly accommodate for tree growth. Width may be reduced if the landscape area only contains a mixture of ground cover and shrubs, or if otherwise approved by the Director.
 4. Include a combination of trees, shrubs, and groundcover appropriate to the setting, solar exposure, and design of the site, and include a mixture of evergreen and deciduous trees.
 5. All areas not devoted to building coverage, walkways, parking, or driveways shall be landscaped.
 6. Where healthy mature trees exist on a site, maximum effort in site planning and landscape design shall be given for tree retention; trees shall be protected during construction.
- B. **Residential Zones.** All landscape designs, including common open space and landscape setbacks, within multifamily residential Zone development (R-2 and R-3) and PRDs shall incorporate drought-tolerant and native plant palettes to enhance the visual aesthetics of a project while conserving current water supplies and reducing normal water consumption for purposes of irrigation. In addition to the general provisions and process of this chapter, the following standards shall apply:
1. All setbacks shall be landscaped.
 2. Greater intensity of landscaping shall be installed at the end of buildings, along street frontages, and side/rear setbacks and adjacent to two (2)-story buildings.
 3. All landscape shall be consistent with energy and resource conservation efforts prescribed by California Building Code requirements.
 4. Larger specimens of shrubs and trees are encouraged along the site periphery, particularly along setback areas adjacent to public streets.

5. Locate vegetation to screen parking areas and private first floor areas and windows from second story units.
 6. Landscaping shall include a combination of size of materials.
 7. Landscaping shall be complimentary to building design and architectural treatment.
- C. **R-MHP Zone Standards.** The following standards shall apply to all new development, and expansions of ten percent (10%) or greater of the development area, within the R-MHP Zone:
1. Landscaping shall be required for the entire setback area between all required solid masonry walls and property lines abutting public ROW(s), except for the area required for accessways to the park.
 2. With the front setback area, between the required masonry wall and the public ROW, tree planting shall be as follows:
 - a. A minimum of one (1) twenty-four (24)-inch box tree shall be planted at a maximum spacing of twenty (20)-foot intervals within five (5) feet of the required wall; a bio-barrier shall be installed when tree is planted adjacent to a wall or sidewalk/walkway.
 - b. Variations in the tree planting requirements in setback areas may be permitted in effective use with existing trees and vegetation to provide an adequate landscaped buffer between the park and adjoining ROWs.
 3. Landscaping along all streets and boundaries shall be limited to a height of not more than three and one-half (3.5) feet within twenty (20) feet of any open vehicular access way to the park.
- D. **Parking Area Requirements.** The following standards shall apply to all new development in the Commercial (C), Public Institutional (PI), and Industrial (L-I, I, I-2) Zones.
1. Except for those areas devoted to driveways and/or pedestrian walkways, all off-street parking areas or structures abutting a public street or sidewalk shall be bound by a planting strip or appropriate permeable drainage treatment with minimum widths established by Site Development Plan Review standards or permit application review, and shall comply with ADA standards. The design shall include a method to ensure separation between landscaping and vehicles.
 2. For any required parking area of more than ten (10) spaces, landscaping shall be installed and maintained as follows:
 - a. All required parking setbacks shall be landscaped.
 - b. The landscape plan shall be prepared by a licensed landscape architect.
 - c. Landscaped areas shall be evenly dispersed throughout the parking lot and shall include a combination of trees, shrubs, and ground cover, emphasizing drought-tolerant landscaping.
 - d. Parking lots shall be required to provide trees for shade at a minimum of one (1) tree for every five (5) parking spaces, in planters or landscaped islands evenly

distributed throughout the parking lot. Trees shall be selected from the City's approved planting list, shall be a minimum twenty-four (24)-inch box size, and designed to achieve a goal of fifty percent (50%) shade requirement within fifteen (15) years of planting.

- e. Tree planters shall have a minimum interior dimension of five (5) feet and/or shall be sized to accommodate the selected species of tree growth.
 - f. To increase the parking lot landscaped area, an additional three (3) feet of the parking stall may be landscaped with low growth, hardy landscaping in lieu of paving.
 - g. To increase the parking lot landscape area, a two (2)-foot landscaped overhang area may be provided as part of the eighteen (18)-foot minimum length of a parking space, provided the total depth of such overhang area is in accord with the specifications of Table 20.340-3. Such overhang area shall not be considered as part of the landscaping requirement. In no case shall such overhang be considered part of a required walkway or sidewalk width.
 - h. Landscape irrigation shall be provided per the requirements of this chapter.
 - i. Parking area landscaping requirements may be reduced if a developer provides substitute open areas as approved by the Director. Substitute areas may include reflection pools, lawns, and similar landscape features.
3. Parking Area Screening.
- a. Parking lots shall be screened from major public streets and adjacent residential land uses with plants, low walls, fences or grade changes that is a minimum of three (3) feet in height.
 - b. Interior property lines between parking lot areas and an existing or proposed residential development shall require a six (6)-foot-high decorative masonry wall.

Section 20.330.050 Landscape Documentation Package Submittal Milestones

Prior to final approval of the Landscape Documentation Package, the Planning Division must obtain approval from the local water purveyor to verify that the water budget calculations specified in the Landscape Documentation Package meet the water allocation specified by the local water purveyor.

- A. **Prior to Construction.** Prior to construction, Planning Division shall do the following:
- 1. Provide the project applicant a copy of the Landscape Regulations and procedures for design review, plan checks, or permits. Copies of the reference Evapotranspiration Table, Water Efficient Landscape Worksheet, a Certification of Completion form and Prescriptive Compliance Option shall be provided in the landscape application form.
 - 2. Review the Landscape Documentation Package submitted by the project applicant.
 - 3. Approve or deny the Landscape Documentation Package.
 - 4. Complete the design review, approve the plans, and issue a permit.

5. Upon approval of the Landscape Document Package, submit an electronic copy of the Water Efficient Landscape Worksheet to the local retail water purveyor.
- B. **During Construction.** During construction, the project applicant shall do the following:
1. Maintain an approved Landscape Documentation Package at the job site.
 2. Maintain an approved copy of the Landscape Permit and a record the date of the approval of the landscape Permit.
- C. **Post Completion.** Upon completion of all landscape design, the project applicant shall do the following:
1. Obtain a Certificate of Completion signed by Planning Division.
 2. Submit an electronic copy of the approved Landscape Documentation Package along with the record drawings, and an electronic copy of the Water Efficient Landscape Worksheet to the local retail water purveyor.
- D. **On-Going Responsibility.** The applicant's on-going responsibility after Planning Division signs off the Certificate of Completion is to contact the local retail water purveyor, or a certified landscape irrigation auditor, and secure a landscape audit that will include a recommended irrigation schedule. Landscape audits shall not be conducted by the person who designed or installed the landscape.
- E. **Establishment Period.** The first eighteen (18) months after the City approves planting shall be considered as the "establishment period" for the landscape plant materials. A bond or cash deposit will be submitted to the City, prior to issuing a Landscape Permit and held until a final inspection is conducted by the City to verify the landscape is thriving in a healthy manner. It will be the responsibility of the developer/owner to contact the City a minimum of thirty (30) days prior to end of the eighteen (18) months for the final inspection.

Section 20.330.060 Landscape Documentation Package Elements

The Landscape Documentation Package shall include following elements:

- A. **Project information.** Project information regarding the landscape project shall contain all the following:
1. Date of submittal.
 2. Project applicant's full name.
 3. Project address and/or assessor parcel number(s).
 4. Total existing and proposed landscape area in square feet.
 5. Define project type (e.g. new, rehabilitated, public, cemetery, owner-installed).
 6. Adjacent land uses and zoning designations.
 7. Approximate location and quantity of all proposed and existing specimen trees.

8. Location of all existing and proposed storm, sanitary, and utility lines. Root barriers shall be required when trees are planted within five (5) feet (or as directed by the local water purveyor) of public water and sewer mains.
9. Location of all existing and proposed contours two (2)-foot minimum.
10. Location of proposed and existing buildings, structures and paved areas.
11. Landscape Plans must be drawn to scale, and in cases where a grading permit is required, both landscape and grading plans must be the same scale.
12. Provide a planting schedule with proposed plant material names (common and botanical), quantity, size, and spacing, and any special planting notes. Size of plants should be describing the actual size at the time the plant is installed.
13. Separate landscape plan(s) submittal will be required for:
 - a. Community Facilities District (CFD) Areas.
 - b. Privately Owned Landscape Areas.
 - c. Homeowners' Association (HOAs).
 - d. Master Development Associations.
 - e. Master Retail Associations.
14. Landscape plans must address all BMPs, coincide with grading plans, address brush management Zones, and address biological constraints.
15. The landscape plan must also address any sight visibility triangle issue if applicable.
16. All hardscape, i.e., decorative paving, scored concrete, trellis design, location of monument sign and other special design items must be addressed on the landscape plans.
17. Water supply type (e.g., potable, recycle, or well, identify local retail water purveyor if the project is not served by a private well).
18. Completed checklist of all documents in the Landscape Documentation Package.
19. Project contacts to include contact information (name, address, and phone number) for the project applicant, landscape architect, contractor, and property owner.
20. Applicant/property owner signature and date with the following statement: "I agree to comply with the requirements of the Water Efficient Landscape Regulations and submit a complete Landscape Documentation Package."

B. Water Efficient Landscape Worksheet.

1. A project applicant shall complete the Water Efficient Landscape Worksheet which is provided with the City's Landscape Application packet. The worksheet should contain information on the plant factor, irrigation method, irrigation efficiency, and area associated with each hydrozone. Calculations are then made to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for nonresidential areas, exclusive of Special Landscape Areas. The ETAF for a landscape project is based on the plant factors and irrigation methods selected. The Maximum Applied Water Allowance 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 Estimated Total Water Use (ETWU) is calculated based on the plants used and irrigation method selected for the landscape design. ETWU must be below the MAWA.

In calculating the Maximum Applied Water Allowance and Estimated Total Water Use, a project applicant shall use the ETo values from the Reference Evapotranspiration Table provided in the Landscape Application handout from the Planning Division.

2. Water budget calculations shall adhere to the following requirements:
 - a. The plant factor used shall be from Water Use Classification of Landscape Species (WUCOLS) published by the California Department of Water Conservation or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR). The plant factor ranges from 0 to 0.1 for very low water using plants, 0.1 to 0.3 for low water use, from 0.4 to 0.6 for moderate water use plants and from 0.7 to 1.0 for high water use plants.
 - b. All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.
 - c. All special landscape Area shall be identified and its water use calculation as described in "Water Efficient Landscape Worksheet".
 - d. Evapotranspiration Adjustment Factor (ETAF) for new and existing (non-rehabilitated) Special Landscape Area Water Allowance shall not exceed 1.0 ETAF.

C. **Soil Management Report.** In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed as follows:

1. The soil management plan shall be prepared by a licensed landscape architect, licensed civil engineer, or a licensed architect.
2. Submit soil sample to a laboratory for analysis and recommendations
 - a. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants; and
 - b. The soils analysis shall include:
 - i. Soil texture
 - ii. Infiltration rate determined by laboratory test or soil texture infiltration rate table
 - iii. pH level
 - iv. Total soluble salts
 - v. Sodium level
 - vi. Percentage of organic matter

- vii. Recommendations about the soil amendments may be necessary to foster plant growth and plant survival in the landscape area using efficient irrigation techniques
 - c. 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.
 - 3. The project applicant shall comply with one (1) of the following:
 - a. If the project does not exceed the movement of greater than fifty (50) cubic yards of dirt, the soil analysis report shall be submitted to Development Services Department as part of the Landscape Documentation Package.
 - b. If greater than fifty (50) cubic yards of dirt is moved, the soil analysis report shall be submitted accompanied by the Certificate of Completion.
 - c. The soils analysis report shall be readily available to the professionals preparing the landscape and irrigation design plans.
 - d. The project applicant shall submit documentation verifying implementation of the soil analysis report recommendations to Development Services Department with the Certificate of Completion.
- D. **Landscape Design Plan.** For efficient use of water, a landscape plan shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting following design criteria shall be submitted as part of the Landscape Documentation Package.
 - 1. Plant Material
 - a. Any plant may be selected for the landscape, providing the total landscape area does not exceed the Maximum Applied Water Allowance. Methods to achieve water efficiency shall include one or more of the following:
 - i. Protection and preservation of native species and natural vegetation;
 - ii. Selection of water conserving plant species, tree species and turf species, especially local native plants;
 - iii. Selection of canopy shading; and
 - iv. Selection of plants based on local climate suitability, disease and pest resistance.
 - v. Selection of plants from Fuel Modification Plan Guidelines
 - b. Each hydrozone shall have plant materials with similar water use, with the exception of plants with mixed water use. For hydrozones with plants of mixed use, refer to Section 20.330.060(F) (Hydrozone Design) for more information. Plants shall be selected and planted appropriately based upon their adaptability to climate, geologic, and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

- i. Use the Sunset Western Climate Zone that takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate.
 - ii. Recognize the horticulture attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure (e.g., building, sidewalks, power lines) allow for adequate soil volume for healthy root growth.
 - iii. Consider the solar orientation for plant placement to maximize summer shade and winter solar gain.
 - c. Turf is not allowed on slopes greater than twenty-five percent (25%) where the toe of the slope is adjacent to an impermeable hardscape and where twenty-five percent (25%) means one (1) foot of vertical elevation change for every four (4) feet of horizontal length (rise divided by run x 100 = slope percent).
 - d. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.
 - e. A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensive space or Zone around a building or structure is required per Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches.
 - f. The use of invasive species such as those listed by the California Invasive Plant Council is prohibited.
 - g. Invasive species of plants shall be avoided especially near parks, buffers, greenbelts, water bodies, and open spaces because of their potential to harm environmentally sensitive areas.
 - h. The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have an effect of prohibiting the use of low-water use plants as a group (Civil Code Section 1358.8).
2. Water Features. Re-circulating water shall be used for water features. Water features must comply with San Diego County Department of Environmental Health standards. Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculations.
3. Soil Preparation, Mulch and Amendments:
- i. Prior to the 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 incorporated according to recommendations of the soil report and what is appropriate for the plants selected.
 - iii. For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a

depth of six inches into the soil. Soils with greater than 6% organic matter in the top six (6) inches of soil are exempt from adding compost and tilling.

- iv. A minimum four (4)-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf area, creeping or rooting groundcovers or direct seeding applications where mulch is contraindicated. To provide habitat for beneficial insects and other 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 mulching 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 requirements.
 - vii. Organic mulch materials made from recycled or post-consumer shall take precedence over inorganic materials or virgin forest products unless the recycled post-consumer organic products are not locally available. Organic mulches are not required where prohibited by local Fuel Protection Plan Guidelines or other applicable City regulations.
4. The landscape design shall at a minimum contain the following:
- i. Delineate and label hydrozone by number, letter, or other method.
 - ii. Identify each hydrozone as low, moderate, high-water use, or mixed water-use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation.
 - iii. Identify recreation areas.
 - iv. Identify areas permanently and solely dedicated to edible plants.
 - v. Identify areas irrigated with recycled water.
 - vi. Identify type of mulch and application depth.
 - vii. Identify soil amendments, type, and quantity.
 - viii. Identify type and surface area of water features.
 - ix. Identify hardscapes (pervious and on-pervious).
 - x. Identify location, installation details and 24 hour retention or infiltration capacity of any applicable storm water best management practices that encourage on-site retention and infiltration of storm water. Project applicants shall refer to the City or regional Water Quality Control Board for information on any applicable stormwater technical requirements. Storm water best management practices are encouraged in the landscape design plans and examples are provided in Section 20.330.140
 - xi. Identify any applicable rain harvesting or catchment technologies as discussed in Section 20.330.140-Storm Water Management and Rainwater Retention, and their 24-hour retention or infiltration capacity;

- xii. Identify any applicable graywater discharge piping, system components and area(s) of distribution;
- xiii. The landscape design shall have the following statement: "I have complied with the criteria of this chapter and applied them for the efficient use of water in the landscape design plan."
- xiv. The signatures of a licensed landscape architect, licensed landscape contractor, or any other applicable landscape professional, person, licensed or unlicensed, as listed in the Business and Professions Code, California Code of Regulations, or Food and Agricultural Code.

E. **Irrigation Design Plan.** 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 the requirements listed in this section and the manufacturer 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.

- 1. Landscape water meters, defined as either a dedicated water service meter or private submeter shall be installed for all non-residential irrigated landscapes of 1,000 sq. ft. but not more than 5,000 sq.ft. (the level at which *Water Code 535* applies) and residential irrigated landscapes of 5,000 sq. ft. or greater. A landscape water meter may be either:
 - a. A customer service meter dedicated to landscape use provided by the local water purveyor; or
 - b. A privately owned meter or submeter.
- 2. Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data utilizing non-volatile memory shall be required for irrigation scheduling in all irrigation systems.
- 3. 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 manufactures recommended pressure range for optimal performance:
 - a. 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.
 - b. 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 design stage. If the measurements are not available at the design stage, the measurement shall be conducted at installation.
- 4. Sensors (rain, freeze, wind, etc.) either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions such as rain or a freeze shall

- be required on all irrigation systems, as appropriate for local climate conditions. Irrigation should be avoided during windy or freezing weather or during rain.
5. Manual shut-off valves (such as gate valves, ball valve, or butterfly valve) shall be required as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a main break) or routine repair.
 6. If separate water meters are proposed, backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall contact the San Diego County Department of Environmental Health for additional backflow prevention requirements.
 7. Flow sensors that detect high flow conditions created by system damage or malfunction are required for all on non-residential landscapes and residential landscapes of 5000 sq. ft. or larger.
 8. Master shut-off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.
 9. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
 10. Relevant information from the soil management plan, such as soil type and infiltration rate, shall be used when designing irrigations systems.
 11. The design of the irrigation system shall conform to the hydrozones of the landscape design plan.
 12. The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 20.330.060(B) regarding the Maximum Applied Water Allowance.
 13. All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard, All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
 14. The project applicant shall inquire with the retail water purveyor about peak hour water operating demands (on the water supply system) or water restrictions that may impact water availability or water pressure and could compromise the effectiveness of the irrigation system.
 15. In mulched planting areas, the use of low volume water irrigation is required to maximize water infiltration into the roots.
 16. Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufactures specifications.
 17. Head to head coverage is recommended. However, sprinkler spacing shall be set to achieve distribution uniformity using the manufactures specifications.

18. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscaped or in high traffic areas of turf grass.
19. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.
20. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray .
21. Overhead irrigation shall not be permitted within twenty-four (24) inches of any non-permeable surface. Allowable irrigation within the setback from a non-permeable surface 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:
 - 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; or
 - c. 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 20.330.060(E)(Irrigation Design Plan). Prevention of overspray and runoff must be confirmed during irrigation audit.
22. Slopes greater than twenty-five percent (25%) shall not be irrigated with an irrigation system with a application rate exceeding three-quarter (0.75) inch per hour. This restriction may be modified if the landscape designer specifies 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.
23. The irrigation design plan shall contain the following statement: "I have complied with the criteria of this chapter and applied them accordingly for the efficient use of water in the irrigation design plan."
24. Provide the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other applicable landscape professional person, authorized to design an irrigation system as listed in the Business and professional Code, California Code of Regulation, or Food and Agriculture Code.

F. Hydrozone Design.

1. Each valve shall irrigate a hydrozone with a similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
2. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

3. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.
 4. Individual hydrozones that mix plants of moderate and low water use or moderate and high water use, may be allowed if:
 - a. Plant factor calculation is based on the proportions of the respective plant water uses and their plant factor or
 - b. The plant factor of the higher water using plant is used for calculations.
 5. Individual hydrozones that mix high and low water use plants shall not be permitted.
 6. 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 valve, and assign a number to each valve. Use this valve number in the Hydrozone Information table. This table can also assist with pre- and final inspections of the irrigation system and programming the controller.
 7. The irrigation design plan shall show location and size of separate water meters for landscape.
 8. Show 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 devices.
 9. Show the static water pressure at the point of connection to the public water supply.
 10. Describe the flow rate (gallons per minute), application rate (inches per hour) and design operating pressure (pressure per square inch) for each station.
 11. Indicate if there is recycled water being used for the irrigation system and if so, as specified in Section 20.330.120 (Recycled Water).
 12. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturer's specifications. 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.
 13. Weather-based irrigation controllers or soil moisture-based controllers or other self-adjusting irrigation controllers shall be required for irrigation scheduling in all irrigation systems.
- F. **Grading Design Plan.** For efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading design plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan shall be prepared by a civil engineer, that satisfies this requirement.
1. The project applicant shall submit a landscape grading plan that indicates finish configurations and elevations of the landscaping area, including the following:
 - a. Height of graded slopes;

- b. Drainage patterns;
 - c. Pad elevations;
 - d. Finished grade; and
 - e. Storm water retention improvements, if applicable.
 - 2. To prevent excessive erosion and runoff, it is highly recommended that the applicant:
 - a. Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;
 - b. Avoid disruption of natural drainage patterns and undisturbed soil, and
 - c. Avoid soil compaction in landscape areas.
 - 3. The grading design plan shall contain the following statement: "I have complied with the criteria of this chapter and applied them accordingly for the efficient use of water in the grading design plan" and the signature of a licensed professional as authorized by law.
- G. **Fuel Protection Plan.** Establish a meeting with the Fire Marshal early in the design process to determine if a Fuel Protection Plan (FPP) is required. The fuel management area shall be designed with the appropriate plant species recognized under the FPP.
- H. **Biological Constraints Plan.** If it is determined that the project site is located in a biologically sensitive area, the following shall apply:
- 1. The landscape plans shall be reviewed and approved by a certified biologist for:
 - a. Compatible plants that are not considered invasive.
 - b. Confirm the boundary of the biological constraint area.
 - c. Arrange for the biologist to be present for the preconstruction meeting to discuss any constraints with developer.
 - d. Have the biologist assist the civil engineer in stacking the construction buffer area.
 - e. Submit a copy of all Agency Permits, a copy of an approved Property Assessment Records (PAR) and maintenance plan prior to any grading activity.
- I. **Screening of Utilities/Equipment.** A utility plan must be submitted with the site plan prior to recording easements in an effort to coordinate placement of all utilities.
- 1. Mechanical equipment, such as cooling towers, air compressors, pool pumps, transformers, sprinkler pumps, satellite dish antennae, etc., must be adequately screened.
 - 2. Screening shall exceed the vertical height of the equipment being screened by at least six (6) inches. A three (3)-foot open area shall be maintained around such equipment to facilitate repairs.
- J. **Landscape Maintenance/Terms.** All plants shall be maintained in a healthy and thriving condition. Initially, it shall be the responsibility of the developer to maintain (water and weed) all slopes where required by the provisions of this chapter until such time as the property is occupied

by reason of lease or purchase, at which time the responsibility for such maintenance shall be transferred to a mandatory Community Association. Covenants, Conditions, and Restrictions of the subject tract shall provide for acceptance of the responsibility for maintenance by the Community Association.

1. Maintenance shall include restoration of any portion of a slope area affected by installation of walls, fences, pools and the like.
2. A special brochure or maintenance plan shall be prepared by the responsible landscape architect for the purpose of instructing the lessee or purchasers of the property and any landscape maintenance company working on the property on the proper maintenance and watering of landscape slopes, and these landscape brochures or maintenance plan must be submitted and approved by the Planning Division prior to the issuance of a building permit or as directed by the Director.

Section 20.330.070 Certificate of Completion

A. The Certificate of Completion (sample provided in Landscape Application) shall include the following information and documentation:

1. Date;
2. Project name;
3. Project applicant name, telephone, and mailing address;
4. Project address and location;
5. Property owner name, telephone number, and mailing address;
6. 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 Document Package. Where there have been significant changes made in the field during construction, "as-built" or record drawings shall be included with the certification;
7. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes;
8. Irrigation audit report, see Section 20.330.100 (Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis);
9. Parameters used to set the controller; see section 20.330.080 (Irrigation Scheduling);
10. Landscape and irrigation maintenance schedule; see section 20.330.090 (Landscape and Irrigation Maintenance Schedule); and
11. Soils analysis report, if not submitted with Landscape Design package, and documentation verifying implementation of soil report recommendations; see section 20.330.060(C) (Soil Management Report).

B. The project applicant shall do as follows:

1. Submit the signed Certificate of Completion to the Planning Division for review.

2. Ensure that copies of the approved Certificate of Completion are submitted to local retail water purveyor and property owner or his/her designee.
- C. The Planning Division shall do the following:
1. Receive the Certificate of Completion from the project applicant.
 2. Approve or deny the Certificate. If the Certificate of Completion is denied, the Planning Division shall provide information to the project applicant regarding reapplication, appeal or other assistance.

Section 20.330.080 Irrigation Scheduling

- A. For efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to use the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:
1. Irrigation scheduling shall use automatic irrigation systems controllers.
 2. Overhead irrigation shall be scheduled for between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it. If allowable hours of irrigation differ from the local water purveyor, the stricter of the two (2) shall apply. Operation of the irrigation system outside of the normal watering window is allowed for auditing and system maintenance.
 3. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, 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 MAWA. Actual irrigation schedules shall be based on current time reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.
- B. Parameters used to set the controller shall be developed and submitted for each of the following:
1. The plant establishment period;
 2. The established landscape; and
 3. Temporary irrigated areas.
- C. Each irrigation schedule shall consider for each station all of the following that apply:
1. Irrigation interval (days between irrigation);
 2. Irrigation run times (hours or minutes per irrigation event to avoid runoff);
 3. Number of cycle starts required for each irrigation event to avoid runoff;
 4. Amount of applied water scheduled to be applied on a monthly basis;
 5. Application rate setting;
 6. Root depth setting;
 7. Plant type setting;
 8. Soil type;
 9. Slope factor setting;
 10. Shade factor setting; and

11. Irrigation uniformity or efficiency setting.

Section 20.330.090 Landscape and Irrigation Maintenance Schedule.

- A. Landscape shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.
- B. A regular maintenance schedule shall include, but not be limited to, routine inspection; auditing; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; topdressing with compost; replenishing mulch; fertilizing; pruning; weeding in all landscape areas and removing any obstruction to emission devices. Operation of the irrigation system outside of the normal watering window is allowed for auditing and system maintenance.
- C. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components of greater efficiency.
- D. A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

Section 20.330.100 Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis.

- A. All landscape irrigation audits shall be conducted by City landscape irrigation auditor or a third party certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed or installed the landscape.
- B. 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% of the site will satisfy this requirement.
- C. For new construction and rehabilitated landscape projects installed after December 1, 2015, as described in section 20.330.020 (Applicability).
 1. The project applicant shall submit an irrigation audit report with Certificate of Completion to the Planning Division along with a certification statement from the landscape architect certifying that the landscaping and irrigation system have been installed according to the approved plans.
 2. The Planning Division shall administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits and irrigation surveys for compliance with the maximum applied water allowance.

Section 20.330.110 Irrigation Efficiency

For the purpose of determining Estimated Total Water Use, average irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

Section 20.330.120 Recycled Water.

- A. The installation of recycled water irrigation systems shall allow for the current and future use of recycled water.

- B. Landscape using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.
- C. All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and state laws.

Section 20.330.130 Graywater Systems

Graywater systems promote the efficient use of water and are encouraged to assist in on-site landscape irrigation. All graywater systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any applicable City standards. Refer to Section 20.330.020(C) (Applicability) for the applicability of this ordinance to landscape areas less than 2,500 square feet with the Estimated Total Water Use met entirely by graywater.

Section 20.330.140 Storm Water Management and Rainwater Retention.

Storm water management practices minimize runoff and increase infiltration that recharges groundwater and improves water quality. Implementing storm water best management practices into landscape and grading design plans to minimize runoff and to increase on-site rainwater retention and infiltration are encouraged.

- A. Project applicants shall refer to both the City's Storm Water Program Manager and Regional Water Quality Control Board for information on any storm water technical requirements .
- B. All planted landscape areas are required to have friable soil to maximize water retention and infiltration.
- C. 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, 24-hour rain event or (2) the 85th percentile, 24-hour rain event, and/or additional capacity as required by any applicable local, regional, state or federal regulation.
- D. It is recommended that storm water projects incorporate any of the following elements to improve on-site storm water and dry weather runoff capture and use:
 - 1. Grade impervious surfaces, such as driveways, during construction to drain to vegetated areas.
 - 2. Minimize the area of impervious surfaces such as paved areas, roof and concrete driveways.
 - 3. Incorporate pervious or porous surfaces (e.g., gravel, permeable pavers or blocks, pervious or porous concrete) that minimize runoff.
 - 4. Direct runoff from paved surfaces and roof areas into planting beds or landscaped areas to maximize site water capture and reuse.
 - 5. Incorporate rain gardens, cisterns, and other rain harvesting or catchment systems.
 - 6. Incorporate infiltration beds, swales, basins and drywells to capture storm water and dry weather runoff and increase percolation into the soil.
 - 7. Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutants.

Section 20.330.150 Public Education.

The City shall provide information to owners of permitted renovations and new, single-family residential homes regarding design installation, management and maintenance of water efficient landscapes based on a water budget. The owners shall contact the local retail water purveyor for additional information.

- A. All model homes that are to be landscaped shall use signs and written information to demonstrate the principals of water efficient landscapes described in this chapter.
1. 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 efficiency theme. Signage shall include information about the site water use as designed per this Chapter; 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.
 2. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

Section 20.330.160 Provisions for Existing Landscapes.

This section shall apply to all existing landscapes that were installed before December 1, 2015 and are over one acre in size:

A. Irrigation Audit, Irrigation Survey and Irrigation Water Use Analysis.

1. For all existing landscape installed before December 1, 2015, that are one (1) or more acres, the City shall administer programs to encourage irrigation water use analysis, 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 landscape. The Maximum Applied Water Allowance for existing landscape shall be calculated as: $MAWA = (0.8)(ET_o)(LA)(0.62)$.
2. For all existing landscape installed before December 1, 2015 that do not have a meter, the City shall administer programs to encourage irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.
 - a. Maximum Applied Water Allowance for existing landscapes shall be calculated as $MAWA = (0.8)(ET_o)(LA)(0.62)$.
 - b. The audits shall comply with the Irrigation Association Certified landscape Irrigation Auditor training Manual (2204) or the most current edition.
 - c. All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

- B. Water Waste Prevention.** The City and the local retail water purveyors, in concert with the Regional Water Quality Control Board, shall discourage 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. Penalties for violation of these prohibitions shall be administered by agencies appropriately authorized.

1. Restrictions regarding pverspray and runoff may be modified is:
 - a. The landscape area is adjacent to permeable surfaces and no runoff occurs; or
 - b. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.

Section 20.330.170 Effective Precipitation.

Effective Precipitation is considered twenty-five percent [25%] of annual precipitation in tracking water use and may use the following equation to calculate Maximum Applied Water Allowance:

$MAWA = (ET_o - Eppt)(0.62)[(0.55 \times LA) + (0.45 \times SLA)]$ for residential areas.

$MAWA = (ET_o - Eppt)(0.62)[(0.45 \times LA) + (0.55 \times SLA)]$ for non-residential areas.

Section 20.330.180 Reporting

The City shall report on implementation and enforcement of this Chapter to the California Department of Water Resources annually.

The reporting shall address the following:

- A. The date of adoption of this Ordinance.
- B. Reporting will be for the each calendar year.
- C. State how the City's adopted Ordinance is different than the State's adopted Master Water Efficient Landscape Ordinance and how it is at least as efficient as MWELO.
- D. State the entity responsible for implementing the ordinance.
- 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 the procedure for review of projects subject to the Ordinance.
- I. Describe actions taken to verify compliance such as if a plan check is performed; 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 challenges to implementing and enforcing the ordinance.
- L. Describe educational and other needs to properly apply the ordinance.

Section 20.330.190 Landscape Bonds/Cash Deposit/Letter of Credit

A Special Landscaping Performance Bond, Cash Deposit, or Letter of Credit in an amount established by the Director and in a form approved by the City Attorney, shall be posted by the developer to guarantee that the plantings will become permanently established. This bond will become effective upon certification that all landscape is planted per the approved landscape plan and will be held by the City for a minimum of eighteen (18) months unless it can be proven that the landscape is thriving in a healthy condition under an approved maintenance plan.

Section 20.330.200 Violations and Penalties

- A. **Violations.** Violations shall be considered as follows:
 - 1. Removal of existing mature landscape without approval by the City.
 - 2. Damage to existing mature landscape.
 - 3. Any person who violates any of the provisions of this chapter shall be punishable by a fine under chapter 1.12 and chapter 1.14 of this Code.
 - 4. Each such person shall be guilty of a separate offense for each and every day during any portion of which any violation is committed, continued or permitted by any such person.
 - 5. In addition to receiving any fines or other monetary remuneration, the City shall have the right to seek injunctive relief for any and all violations of this chapter and all other remedies provided by law or in equity.
 - 6. The retail water purveyors shall establish and administer penalties for water waste violations, which can lead to restrictions on irrigation water deliveries.
- B. **Penalties.** The City may establish and administer penalties to the project applicant for noncompliance with this chapter, to the extent permitted by law.

Section 20.330.210 Waivers Application & Review Procedure

The City may administratively waive or modify one (1) or more requirements of this chapter when unusual circumstances make their strict application impossible, and upon a determination that the waiver or variance is consistent with the purpose and intent of this chapter.

- A. **Waiver Application.** Applications for waiver shall be submitted to the Director. Application for waiver shall include the following information:
 - 1. Name of applicant.
 - 2. Address or location of site, including Assessor's Parcel Number.
 - 3. Calculations of the total area of the site to be landscaped.

4. A minimum of eight (8) photographs of the site, four (4) looking into the property and four (4) looking out from the property from each cardinal direction.
 5. An explanation of the reason for the waiver request.
- B. **Waiver Review Process.** The Director shall review the application and upon determination of one (1) of the following findings, may grant a waiver:
1. Practical difficulties make the strict application of this chapter feasible.
 2. The waiver is consistent with the purpose and intent of this chapter.
 3. Full compliance with the requirements of this chapter would not materially contribute to the objectives of water conservation.

Section 20.330.220 Conflict, Enforcement, and Interpretation

In the event of a conflict between this chapter and another chapter of this Zoning Ordinance, the more restrictive shall apply.

Section 20.330.230 Appeal Process

A Landscape Permit is required if a developer or property owner is proposing landscape designs under this chapter. The decision of the final decision-making body or official is final and effective ten (10) calendar days after adoption or the resolution or written decision, unless within such ten (10)-day period the applicant or any other interested party or person files a written appeal utilizing the same appeal procedure to the other permits that are processed concurrently with the Landscape Permit. If no other discretionary permits are being processed concurrently with the Landscape Permit, then the appeal procedures in chapter 20.545 (Appeals and Revocations) shall apply.

Proposed Changes to Chapter 20.600

Additions are shown as underlines and deletions are shown as ~~striketrough~~

CHAPTER 20.600 DEFINITIONS

Section 20.600.030 “A” Definitions

~~Application~~ Applied Water. The portion of water supplied by the irrigation systems to the landscape.

Automatic Irrigation Controller. A mechanical or solid state timer, capable of operating valve stations to set the days and length of time of a water application. Automatic irrigation controllers are able to self adjust and schedule irrigation events using either evapotranspiration (weather based) or soil moisture data.

Section 20.600.050 “C” Definitions

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

Section 20.600.060 “D” Definitions

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

Section 20.600.070 “E” Definitions

Established Landscape. The point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

Establishment Period of Plants. The first year after installing the plant in the landscape, or the first two (2) years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

Estimated Total Water Use (ETWU). The total water used for the landscape as described in Table 20.330-1 Section 30.330.060 (B).

ET Adjustment Factor (ETAF). A factor of ~~0.70~~ 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two (2) major influences upon the amount of water that needs to be applied to the landscape. ~~A combined plant mix with a site-wide average of 0.5 is the basis of the plant~~

factor portion of this calculation. For purposes of the ET Adjustment Factor, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor $(0.7) - (0.5/0.71)$. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

Section 20.600.080 "F" Definitions

Flow Sensor. An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

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 the Fire Department to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.

Section 20.600.090 "G" Definitions

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.

Section 20.600.100 "H" Definitions

Homeowner-Provided Landscaping. Landscaping either installed by a private individual for single family residence or installed by a license contractor hired by the homeowner.

Hydrozone. A portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non-irrigated.

Section 20.600.110 "I" Definitions

Invasive Plants Species. Species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. Lists of invasive plants are

maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

Irrigation Audit. an in-depth evaluation of the performance of an irrigation system conducted by a certified Landscape Irrigation Auditor. An irrigation audit includes an inspection and system tune-up. System test with distribution uniformity or emission uniformity, reporting overspray or run off 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 efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The ~~minimum~~ irrigation efficiency for purposes of chapter 20.330 (Water Efficiency Landscape Standards), is ~~0.71~~ are 0.75 for overhead spray devices and 0.81 for drip systems.

Section 20.600.140 "L" Definitions

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.

Section 20.600.150 "M" Definitions

Master shut-off valve. An automatic valve 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 master valve will greatly reduce any water loss due to a leaky station valve.

Maximum Applied Water Allowance (MAWA). The upper limit of annual applied water for the established landscaped area as specified in section 20.330.070(C)060. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special landscape Areas, including recreation areas, area permanently and solely dedicated to be edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water, are subject to the MAWA with ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

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

Mulch. Any organic material such as leaves, bark, and straw or inorganic mineral materials such as rocks, gravel, ~~and or~~ decomposed granite left loose and applied to the soil surface for the

beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

Section 20.600.160 “N” Definitions

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.

Section 20.600.170 “O” Definitions

Overhead Sprinkler Irrigation Systems or Overhead Spray Irrigation System. Systems that deliver water through the air (e.g., spray heads and rotors).

Overspray. The irrigation water that is delivered beyond the target area, and in which can cause overland flow caused by irrigation events onto non-targeted areas such as pavements, walks, and structures.

Section 20.600.180 “P” Definitions

Parkway. The area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.

Plant Factor (or Plant Water Use Factor) (landscaping). A factor when multiplied by ETo estimates the amount of water needed by plants. For purposes of Chapter 20.330 (Water Efficient Landscaping Standards), the plant factor range for very low water use plants is 0 to 0.1, the plant factor range of low water use plants ranges from zero (0) 0.1 to 0.3, the plant factor of moderate water use plants ranges from 0.4 to 0.6, and the plant factor of high water use plants ranges from 0.7 to 1.0. Plant factors are derived from the Department of Water Resources 1999 publication “Water Use Classification of landscape Species”. Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

Precipitation Rate. The depth of water applied to a given area, usually measured in inches per hour.

Section 20.600.200 “R” Definitions

Referenced Evapotranspiration (ETo). A standard measurement of environmental parameters that affect the water use of plants. ETo is given in inches per day, month, or year as represented in section 20.330.070060 (~~Water Efficient Landscape Worksheet~~ Landscape Documentation Package Elements) and is an estimate of the evapotranspiration of a large field of four (4) to seven (7) inches tall, cool season turf that is well watered. Reference evapotranspiration is used as the basis

of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

Recreational Area. Areas ~~excluding private single family residential areas, dedicated~~ designed to for active play, recreation or public assembly such as in parks, sports field, picnic grounds, amphitheaters and or golf courses tees, fairways, roughs, surrounds and greens where turf provides a playing surface.

Residential Landscape. Landscapes surrounding single or multifamily homes.

Section 20.600.210 “S” Definitions

Special Landscape Area (SLA). An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water ~~areas dedicated to active play as parks, sports fields, golf courses, and where turf provides playing surfaces.~~

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

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

Section 20.600.220 “T” Definitions

Turf. A groundcover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are common ~~cool season~~ cool season grasses. Bermuda grass, ~~Kikuyu grass~~ Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysiagrass, and Buffalo grass are common warm-season grasses.

Section 20.600.250 “W” Definitions

Water Conserving Plant. A plant species identified as having a very low or low plant factor. ~~using less water than plants in the same water use category; those having a low plant factor.~~

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