

# CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT  
PLANNING DIVISION

135 NORTH D STREET, PERRIS, CA 92570-2200  
TEL.: (951) 943-5003 FAX: (951) 943-8379

February 3, 2010

Mr. Simon Eching  
California Department of Water Resource  
Water Use and Efficiency Branch  
Post Office Box 942836  
Sacramento, CA 94236-0001

**Subject: Updated Water Efficiency Landscape Ordinance for the City of Perris**

Dear Mr. Eching:

On December 12, 2009 the Perris City Council approved the first reading of an updated water efficiency landscape ordinance for the City. This ordinance updated the City of Perris's earlier landscape ordinance approved in April of 2008. We used the model ordinance created by the Western Regional Council of Governments (WRCOG) which local jurisdictions were encouraged to either adopt or use to update their own water ordinance to comply with AB 1881. WRCOG's goal was to promote uniform implementation of AB 1881 across Riverside County by establishing a single set of standards for the development community.

Attached you will submit a copy of Perris's adopted water efficient landscape ordinance and the findings that indicate this ordinance is at least as effective at conserving water as DWR's updated MWELo. If you have any questions or require additional information, please do not hesitate to contact me at (951) 943-5003, extension 252.

Sincerely,

Diane Sbardellati  
Associate Planner

attachments: Water Efficient Landscape Ordinance 1265 (findings), PMC Chapter 19.70

cc: Brad Eckhardt, Planning Manager

**ORDINANCE NUMBER 1265**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AMENDING SECTION 19.70, LANDSCAPING, OF THE ZONING CODE TO INCORPORATE MANDATORY WATER CONSERVATION MEASURES REQUIRED BY THE STATE OF CALIFORNIA (AB 1881), AND MAKING FINDINGS IN SUPPORT THEREOF.**

*WHEREAS*, the City Council of the City of Perris adopted a General Plan to guide development throughout the City and a Zoning Ordinance to implement the vision set forth in the General Plan; and,

*WHEREAS*, the Perris Zoning Ordinance includes Chapter 19.70, Landscaping, which establishes criteria for designing, installing, and maintaining water-efficient landscaping; and

*WHEREAS*, landscape water use makes up approximately 33 percent of urban water use in California, and the State estimates water savings of 25-40% can be achieved through improved landscape management, hardware improvements, and landscape design, equating to 600,000 to 1 million acre-feet of water saved annually; and

*WHEREAS*, the State of California has enacted the Water Conservation in Landscaping Act (Landscaping Act); and

*WHEREAS*, Assembly Bill 1881 amended said Landscaping Act to require the Department of Water Resources to update the State's model water efficient landscape ordinance to include certain specific requirements; and

*WHEREAS*, the Department of Water Resources has updated the State's model water efficient landscape ordinance; and

*WHEREAS*, said Landscaping Act mandates local agencies to, no later than January 1, 2010, adopt the State's model ordinance or a water efficient landscape ordinance that is at least as effective in conserving water as the updated model ordinance; and

*WHEREAS*, the Western Region Council of Governments (WRCOG) held public meetings for the purpose of developing a model ordinance for local jurisdictions that would comply with said Landscaping Act and facilitate consistent implementation across Riverside County; and

*WHEREAS*, the City's existing landscape ordinance already addresses water conservation measures with requirements for water-wise planting, smart controlled irrigation equipment, and water budgeting; and

*WHEREAS*, the proposed updates contained in Landscape Water Efficiency Ordinance Amendment 09-10-0001 closely follow WRCOG's model ordinance and is therefore at least as effective in conserving water as the State's updated model ordinance, containing all mandatory provisions; and

*WHEREAS*, the proposed project is Categorically Exempt under Class 21, Enforcement Actions by Regulatory Agencies, of the California Environmental Quality Act (CEQA); and

*WHEREAS*, on November 18, 2009, the Planning Commission considered testimony and materials in the staff report and accompanying documents, and recommended approval of Ordinance Amendment 09-10-0001 to the City Council; and

*WHEREAS*, on December 8, 2009, the City Council conducted a duly noticed public hearing introducing the first reading of an Ordinance to amend Section 19.70 of the Zoning Ordinance to update irrigation efficiency standards contained in the Landscape Code (draft attached); and,

*WHEREAS*, all legal prerequisites for the adoption of this Ordinance have occurred.

*NOW, THEREFORE, BE IT ORDAINED* by the City Council of the City of Perris, as follows:

*Section 1.* The above recitals are all true and correct.

*Section 2.* The City Council has reviewed and considered the environmental information included in the staff report and accompanying attachments prior to taking action on the applications for the proposed projects and finds that the City has complied with the California Environmental Quality Act, and the City Council determinations reflect the independent judgment of the City.

*Section 3.* Based on the information contained within the staff report and the accompanying attachments and exhibits, the City Council hereby finds:

- A. The proposed Ordinance Amendment will not result in a significant adverse effect on the environment.
- B. The proposed Ordinance Amendment will not conflict with the goals, policies, and implementation measures set forth in the General Plan and Zoning Ordinances.
- C. The proposed Ordinance Amendment will not have a negative affect on public health, safety, or the general welfare of the community.

*Section 4.* The City Council hereby adopts the first reading of the attached Ordinance amending Zoning Code Chapter 19.70 to comply with the State's Landscaping Act, based on the information and findings presented.

*Section 5.* The City Council declares that should any provision, section, paragraph, sentence, or word of this Ordinance be rendered or declared invalid by any court of competent jurisdiction, or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences and words of this Ordinance shall remain in full force and effect.

*Section 6.* The Mayor shall sign and the City Clerk shall certify to the passage and adoption of this Ordinance.

ADOPTED, SIGNED and APPROVED this 12<sup>th</sup> day of January, 2010.

  
\_\_\_\_\_  
Mayor Daryl R. Busch

ATTEST:

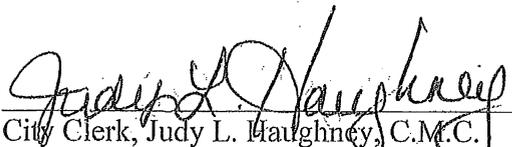
  
\_\_\_\_\_  
City Clerk Judy L. Haughney, C.M.C.

Attachment: Amended Chapter 19.70, Landscaping (Draft)

STATE OF CALIFORNIA    )  
COUNTY OF RIVERSIDE    ) §  
CITY OF PERRIS            )

I Judy L. Haughney, CITY CLERK OF THE CITY OF PERRIS, CALIFORNIA, DO HEREBY CERTIFY that the foregoing Ordinance Number 1265 was duly and regularly adopted by the City Council of the City of Perris at a regular meeting thereof held on the 12<sup>th</sup> day of January 2010, by the following vote:

AYES:            Evans, Landers, Rogers, Busch  
NOES:            None  
ABSENT:         None  
ABSTAIN:        None

  
\_\_\_\_\_  
City Clerk, Judy L. Haughney, C.M.C.

## CHAPTER 19.70

### LANDSCAPING

Section:

19.70.010	INTENT AND PURPOSE
19.70.020	DEFINITIONS
19.70.030	WATER CONSERVATION REQUIREMENTS FOR NEW OR REHABILITATED LANDSCAPES
19.70.040	LANDSCAPE PLAN CHECK REQUIREMENTS
19.70.050	LANDSCAPE WATER EFFICIENCY MEASURES
19.70.060	LANDSCAPE DESIGN GUIDELINES
19.70.070	INSPECTION AND CERTIFICATION

19.70.010 INTENT AND PURPOSE

***A. Determinations***

The City Council has determined the following:

1. Water is a valuable resource in limited supply in the State subject to increasing demand.
2. The City has set the goal of implementing measurements resulting in the more efficient use of water through landscaping and irrigation design.
3. Landscapes provide recreation areas, promote clean air and water, prevent erosion, and replace ecosystems displaced by development.
4. Landscape design, installation and maintenance shall be water- efficient.

***B. Purpose***

The purpose of this Chapter shall be to:

1. Promote the values and benefits of landscapes while recognizing the need to use water as efficiently as possible.
2. Establish criteria for designing, installing, and maintaining water-efficient landscapes in new projects.
3. Establish landscape design criteria for development projects.

19.70.020 DEFINITIONS

The following terms used in this Ordinance have the meaning set forth below:

“Application rate” means the amount of water applied to an area in one (1) hour measured in inches per hour.

“Backflow prevention device” means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

“Check valve” or “anti-drain valve” means a valve located under a sprinkler head or other location in the irrigation system to hold water in the system to prevent drainage from the sprinkler heads when the system is off.

“Conversion factor (0.62)” means a number that converts the maximum applied water allowance from acre-inches per acre per year to gallons per square foot per year. The conversion factor is calculated as follows:

$$(325,829 \text{ gallons}/43,560 \text{ square feet})/$$

$$12 \text{ inches} = (0.62)$$

$$325,829 \text{ gallons} = \text{one acre foot}$$

$$43,560 \text{ square feet} = \text{one acre}$$

To convert gallons per year to 100-cubic feet per year (a common billing unit for water), divide gallons per year by 748 (748 gallons = 100 cubic feet).

“Emitter” means a drip irrigation fitting that delivers water slowly from the system to the soil.

“Established landscape” means the point at which plants in the landscape have developed significant root growth into the site. Typically, most plants are established after one or two years of growth.

“Establishment period” means the first year after installing the plant in the landscape.

“Estimated Annual Water Use” (EAWU) means the portion of the Estimated Total Water Use that is derived from applied water. The Estimated Annual Water Use shall not exceed the Maximum Applied Water Allowance (MAWA). Estimated Annual Water Use may be the sum of the water used on system components recommended through the irrigation schedule. EAWU is used to estimate the total water use per year for a given hydrozone, and is calculated as follows:

$$\text{EAWU (in gallons)} = (\text{ETo})(0.62)[((\text{PF} \times \text{HA})/\text{IE}) + \text{SLA}]$$

*where:*

ETo is reference evapotranspiration (56.65 is a recent ETo rate for Perris)

PF is Plant Factor

HA is hydrozone area in square feet

IE is irrigation efficiency (minimum 0.71)

SLA is the amount of special landscape area in square feet

“Evapotranspiration” (ETo) or “Reference evapotranspiration” means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time. “ETo” is a standard measure of environmental parameters that affect the water use of plants. ETo is given in inches per day, month or year. ETo is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well-watered. Reference evapotranspiration is used as

the basis of determining the Maximum Applied Water Allowance (MAWA) so that regional differences in climate can be accommodated. The annual ETo determined for **Perris** is 56.65.

“Flow rate” means the rate at which water flows through pipes and valves (gallons per minute or cubic feet per second).

“Hydrozone” means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

“Invasive species” are non-indigenous species (e.g., plants or animals) that adversely affect the habitats they invade economically, environmentally, or ecologically. Lists of invasive species are included within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (incorporated by reference).

“Landscape architect” means a person who holds a license to practice landscape architecture in the State of California (Government Code Section 5615).

“Landscaped area” or “LA” means all of the planting areas, turf areas and water features in a landscape design plan subject to the Maximum Applied Water Allowance (MAWA) calculation. Landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or impervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

“Landscape Plans” for the purpose of meeting the requirements of this Ordinance shall include the following items: Planting Plan, Irrigation Plan, Soil Management Plan, and Grading Plan. A submittal package missing any one of these items will be deemed incomplete.

“Low volume irrigation” means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

“Maximum Applied Water Allowance” or “MAWA” means the upper limit of annual applied water allowed for the established landscaped area, and is calculated as follows:

- For landscapes installed before January 1, 2010, the applicable MAWA (in gallons)=  
 $(ETo)(0.62)(0.8)(LA)$
- For landscapes installed after January 1, 2010, the applicable MAWA (in gallons)=  
 $(ETo)(0.62)[0.7 \times LA + 0.3 \times SLA]$

*where:*

ETo is reference evapotranspiration

SLA is the amount of special landscape area in square feet

LA is total landscape area (including the SLA) in square feet

$$\text{MAWA (in gallons)} = (\text{ET}_o)(0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

For the purposes of determining the Maximum Applied Water Allowance (MAWA), average irrigation efficiency is assumed to be 0.71. New irrigation systems shall be designed, maintained, and managed to meet or exceed an average irrigation efficiency of 0.71.

“Overhead sprinkler irrigation systems” means systems that deliver water through the air (e.g., pop-ups, impulse sprinklers, spray heads and rotors, etc.).

“Rehabilitated landscapes” means any re-landscaping project that requires a permit, plan check, or design review, and/or would meet the requirements of 19.70.030.B.

“Special landscape area” (SLA) means an area of the landscape dedicated to edible plants, areas irrigated with recycled water, and publicly accessible areas dedicated to active play such as parks, sports fields, golf courses, where turf provides a playing field or where turf is needed for high traffic activities.

“Temporarily irrigated” means irrigation for the purposes of establishing plants, or irrigation which will not continue after plant establishment. Temporary irrigation is for a period of six months or less.

“Water intensive landscaping” means a landscape with a WUCOLS plant factor of 0.7 or greater.

“Water Service Area” means an area where retail water services are provided by a local water purveyor. The water purveyor provides metering services, water use billing and shall be responsible for enforcement of this Ordinance. The City of Perris has three water service areas, two of its own, and the area encompassed by the Eastern Municipal Water District (EMWD).

“WUCOLS” means the publication entitled “Water Use Classification of Landscape Species” by the U.C. Cooperative Extension (1999 or most current version).

#### 19.70.030 WATER CONSERVATION REQUIREMENTS FOR NEW OR REHABILITATED LANDSCAPES

A. **Intent.** By adoption of these provisions, it is the intent of this Ordinance to:

1. Establish provisions for water management practices and water waste prevention;
2. Establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects;
3. To reduce the water demands from landscapes without a decline in landscape quality or quantity;
4. To retain flexibility and encourage creativity through appropriate design;
5. To attain water-efficient landscape goals by requiring that landscapes not exceed a maximum water demand of 70% of its reference evapotranspiration (ET<sub>o</sub>) rate;
6. To eliminate water waste from overspray and/or runoff;

7. To achieve water conservation by raising the public awareness of the need to conserve water through education and motivation to embrace an effective water demand management program; and
8. To implement the requirements to meet the state of California Water Conservation in Landscaping Act 2006 and the California Code of Regulations Title 23, Division 2, Chapter 2.7.

B. **Applicability.** The City of Perris has two water service areas, its own and the area encompassed by the Eastern Municipal Water District (EMWD). Water-efficiency standards for landscaping shall apply as follows:

1. **New or rehabilitated landscape projects** throughout the City (City water service areas or EMWD service areas) are subject to the water-efficiency requirements of this Ordinance as follows:
  - a. All new construction landscapes which are homeowner-provided and/or homeowner-hired (“owner-builder”) in single-family and multi-family projects with a total project landscape area equal to or greater than 5,000 square feet requiring a building or landscape permit, plan check or design review as determined by the Director of Development Services;
  - b. All other landscape projects with a landscape area equal to or greater than 2,500 square feet subject to discretionary permits, plan checks, design reviews, and/or approvals as determined by the Director of Development Services.
2. **Existing properties with landscape areas within the Perris water service area** are subject to the water-efficiency requirements of this Ordinance when:
  - a. Properties with landscape areas are one acre or greater in size, or
  - b. Properties less than one acre in size are served by a dedicated landscape irrigation meter.
  - c. Existing properties with landscape areas installed before January 1, 2010 that are less than one acre in size, or not served by a dedicated landscape irrigation meter, are limited to an ETo factor of 0.8, and subject to water conservation enforcement by the water service provider.
3. **Existing properties with landscape areas within the EMWD water service area** are subject to the water-efficiency requirements of this Ordinance and the terms of EMWD’s water service agreement, including but not limited to, tiered rate pricing, any Water Shortage Contingency Plan, Water Use Efficiency Ordinance 72.24, and enforcement thereof. Landscapes installed before January 1, 2010 are limited to an ETo factor of 0.8.

C. **CC&Rs.** When Covenants, Conditions and Restrictions (CC&Rs) are required for any permit subject to this Ordinance, a Condition of Approval shall state the following:

1. The CC&R’s shall prohibit water-intensive landscaping and require low water use landscaping pursuant to the provisions of this Ordinance in connection with common area/open space landscaping. The CC&Rs shall not prohibit use of low-water use plants, nor prohibit the replacement of turf with less water intensive plant species.

2. The CC&R's shall incorporate provisions addressing landscape irrigation system management and maintenance.
3. The Ordinance shall not apply to common areas or open space that is intended to remain natural.

D. **Cemeteries.** Cemeteries are recognized as having unique landscape needs. New, rehabilitated and existing cemeteries are required to comply with the landscape and maintenance protocol described in 19.70.050, if not a registered local, state or federal historical site.

E. **Exemptions.** The following projects or sites are exempt from the provisions of this chapter:

1. Any project with a total landscaped area less than 2,500 square feet.
2. Registered local, state or federal historical sites.
3. Ecological restoration projects that do not require a permanent irrigation system and have an establishment period of less than 3 years.
4. Mined-land reclamation projects that do not require a permanent irrigation system.
5. Botanical gardens and arboretums open to the public.

F. **Special Landscape Areas (SLA).** The following specialized landscape areas are allowed an ETO factor of 0.8 when calculating MAWA:

1. Publicly accessible recreation areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing field;
2. Areas irrigated with recycled water;
3. Areas devoted to edible plants;
4. Where turf is needed for high traffic activities.

## 19.70.040 LANDSCAPE PLAN CHECK REQUIREMENTS

### A. **Landscape Plan Requirements**

1. An applicant proposing any new or rehabilitated landscape subject to this Ordinance shall prepare and submit complete landscape plans to the Development Services Department for review and approval. No building permit shall be issued until the plans have been reviewed and approved by the Development Services Department.
2. A copy of the approved landscaping and irrigation plans shall be provided to the applicant and the licensed landscape architect who prepared and stamped the plans.
3. Conceptual landscaping plans shall be submitted for review and preliminary approval with applications for administrative development plan review, development plan review, conditional use permit, specific plan, and other applications as determined by the Development Services Director. Conceptual landscape plans shall include the following information at minimum:
  - a. Planting plan.
  - b. Plant palette.

- c. Water use estimates.
- d. Allowed water circulation.
- 4. The final landscape and irrigation plans shall be stamped by a California licensed landscape architect and shall include at a minimum the following:
  - a. Landscape design plan.
  - b. Irrigation design plan.
  - c. Water Quality Management Plan (WQMP) site design BMP's
  - d. Planting details (per the City's Technical Manual for Landscape Design), including but not limited to:
    - i. Tree staking (double-staked)
    - ii. Groundcover spacing
    - iii. Planting specifications (trees and shrubs)
    - iv. Root barriers as necessary
  - e. Maintenance schedule.
  - f. Approval block for City signatures.

**B. *Required Landscape Plan Project Information***

- 1. Date.
- 2. Applicant name and contact information.
- 3. Project owner and contact information.
- 4. Project address including parcel and lot numbers.
- 5. Site information required by Chapter 19.71, Urban Forestry.
- 6. Total landscape area in square feet.
- 7. Project type (e.g., new, rehabilitated, public, private).
- 8. Water supply (e.g., potable, well, recycled). Use of recycled water is encouraged.
- 9. Applicant signature and date with statement "I agree to comply all requirements of this Ordinance and submit complete Landscape Plans."

**C. *Planting Plan Requirements***

- 1. The City's Technical Manual for Landscape Design (19.70 Appendix) shall be referenced for Water Use Classifications of Landscape Species (WUCOLS) list, approved City of Perris Street Tree List, and landscape design details.
- 2. The "Riverside County Guide to California Friendly Landscaping" is hereby incorporated by reference to assist with developing water efficient landscapes.
- 3. Plants shall be selected appropriately based upon their adaptability to the climate, geologic and topographical conditions on the project site.
- 4. Plant types shall be grouped together according to their water, soil, sun and shade requirements, and relationship to buildings and available shade. Plants with different water needs shall be irrigated separately. Plants with the following classifications shall be grouped accordingly: high and moderate, moderate and low, low and very low. Deviation from these groupings shall not be permitted.
- 5. Designation of any Special Landscape Area dedicated to recreation and publicly accessible areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing field; areas irrigated with recycled water; areas devoted to edible plants; or where turf is needed for high traffic activities.

6. Water features and pool regulations:
  - a. Decorative water features shall use re-circulating water systems.
  - b. Commercial/community-oriented facilities with pools and/or spas shall be equipped with covers to minimize evaporation when not in use.
  - c. Where available, recycled water shall be used as the source for irrigation and decorative water features.
7. Areas to be accepted for maintenance by the City shall be clearly indicated by a concrete mow strip, wall or other element easily distinguished from adjacent landscaping. A concrete mow strip shall separate turf from other planting areas.
8. Trees are an essential element of landscape design and their inclusion shall be carefully considered and optimized. As opportunity permits, trees shall be planted to increase the urban canopy, cleanse the air, reduce the heat island effect and conserve energy. Trees for shade (deciduous and/or evergreen) shall be provided per Chapter 19.71, Urban Forestry, for residential, commercial and industrial building sites, parking lots and in open space areas to maximize energy and water conservation.
9. Plants shall be placed in a manner considerate of solar orientation to maximize summer shade and winter solar gain.
10. Plant selection for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291(a) and (b). Fire-prone plant materials and highly flammable mulches shall be avoided.
11. Protection and preservation of native species and natural areas is encouraged.
12. Invasive species of plants shall be avoided especially near parks, buffers, greenbelts, water bodies, and open spaces because of their potential to cause harm in to environmentally sensitive areas.
13. Exposed surfaces of non-turf areas within the developed landscape area shall be mulched with a minimum three inch (3") layer of organic material, except in areas with groundcover planted from flats where mulch depth shall be two inches (2").
14. Stabilizing organic mulching products shall be used on slopes.
15. Turf areas shall be used in response to functional needs and in compliance with the water budget.
16. Planting plans shall identify and site the following:
  - a. New and existing trees, shrubs, groundcovers, and turf areas within the proposed landscape area;
  - b. Planting legend indicating all plant species by botanical name and common name, spacing, and quantities of each type of plant by container size;
  - c. Designation of hydrozones;
  - d. Area, in square feet, devoted to landscaping with a breakdown of the total area by landscape hydrozones;
  - e. Property lines, streets, and street names;
  - f. Building locations, driveways, sidewalks, retaining walls, and other hardscape features;
  - g. Appropriate scale and north arrow;
  - h. Any special landscape areas;
  - i. Type of mulch and application depth;
  - j. Type and surface area of any water features;

- k. Type and installation details of any applicable stormwater best management practices;
- l. Planting specifications and details, including the recommendations from the soils analysis as applicable.

17. Planting plans shall be prepared using the following Maximum Applied Water Allowance (MAWA):

$$\text{MAWA (in gallons)} = (\text{ETo})(0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

where:

ETo is reference evapotranspiration

SLA is the amount of special landscape area in square feet

LA is total landscape area (including the SLA) in square feet

For the purposes of determining the Maximum Applied Water Allowance (MAWA), average irrigation efficiency is assumed to be 0.71. New irrigation systems shall be designed, maintained, and managed to meet or exceed an average irrigation efficiency of 0.71.

18. Hydrozones shall be calculated according to Estimated Annual Water Use (EAWU). The EAWU for a given hydrozone is calculated as follows:

$$\text{EAWU (in gallons)} = (\text{ETo})(0.62)[((\text{PF} \times \text{HA}) / \text{IE}) + \text{SLA}]$$

where:

ETo is reference evapotranspiration (56.65 is the evapotranspiration rate for Perris, as measured in inches of water per year)

PF is Plant Factor

HA is hydrozone area in square feet

IE is irrigation efficiency (minimum 0.71)

SLA is the amount of special landscape area in square feet

- a. Landscaping plans shall provide EAWU in the same units as the MAWA for each valve circuit in the irrigation hydrozone. The sum of all EAWU calculations shall not exceed the MAWA for the project.
- b. The plant factor used shall be from WUCOLS. The plant factor for low water use plants range from 0 to 0.3, for moderate water use plants range from 0.4 to 0.6, and for high water use plants range from 0.7 to 1.0.
- c. The plant factor calculation is based on the proportions of the respective plant water uses and their plant factor, or the plant factor of the higher water using plant is used.
- d. The surface area of a water features shall be included in the high water use hydrozone area of the water budget calculation and temporarily irrigated areas in the low water use hydrozone.

19. Reference is made to the Technical Manual for Landscape Design for the (PF) value of a specific plant; the irrigation efficiency (IE) value for the various types of irrigation

- heads or emitters; the AE value of a control system; and, other supplementary details on conforming to requirements that are a part of this Ordinance.
20. Planting and irrigation plans shall be drawn at the same size and scale.
  21. Planting and irrigation plans shall be prepared by a landscape architect licensed by the State of California.

#### **D. *Irrigation Design Plan Requirements***

1. The "Riverside County Guide to California Friendly Landscaping" (Guide) is hereby incorporated by reference to assist the applicant in designing, constructing, and maintaining an efficient irrigation system.
2. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average irrigation efficiency of 0.71.
3. The applicant/developer for a project in the Eastern Municipal Water District (EMWD) shall contact EMWD prior to irrigation system design to determine the availability of recycled water or potable water service. If EMWD determines that potential service will be furnished with recycled water, the landscape and irrigation plans shall be designed in accordance with EMWD requirements for recycled water systems.
4. All irrigation systems shall be designed to prevent runoff, over-spray, low-head drainage and other similar conditions where water flows off site onto adjacent property, non-irrigated areas, walk, roadways, or structures. Irrigation systems shall be designed, constructed, managed, and maintained to achieve as high an overall efficiency as possible. The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
5. Landscaped areas shall be provided with a smart irrigation controller which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions, unless the use of the property would otherwise prohibit use of a timer.
6. Water systems for common open space areas shall use non-potable water, if approved facilities are made available by the water purveyor. Provisions for the conversion to a non-potable water system shall be provided within the landscape plan. Water systems designed to utilize non-potable water shall be designed to meet all applicable standards of the California Regional Water Quality Control Board, the Riverside County Health Department and EMWD.
7. Separate valves shall be provided for separate water use planting areas so that plants with similar water needs are irrigated by the same irrigation valve. All installations shall rely on highly efficient state of the art irrigation systems to eliminate runoff and maximize irrigation efficiency.
8. Static water pressure, dynamic or operating pressure and flow reading of the water supply shall be measured. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at the installation.
9. The capacity of the irrigation system shall not exceed:
  - a. The capacity required for peak water demand based on water budget calculations;
  - b. meter capacity; or
  - c. backflow preventer type and device capacity.

10. Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer.
11. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
12. Non-turf areas on slopes greater than 25% shall be irrigated with drip irrigation or other low volume irrigation technology.
13. Long, narrow, or irregularly shaped areas including turf less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or low-volume irrigation technology.
14. Overhead irrigation shall not be permitted within 24 inches of any nonpermeable surface. There are no restrictions on the irrigation system type if the landscape area is adjacent to permeable surfacing and no overspray and runoff occurs.
15. Overhead irrigation shall be limited to the hours of 8 p.m. to 9 a.m.
16. All irrigation systems shall be equipped with the following:
  - a. A smart irrigation controller as defined in Section 19.70.040.D.5 of this Ordinance;
  - b. A rain-sensing device to prevent irrigation during rainy weather;
  - c. Anti-drain check valves installed at strategic points to minimize or prevent low-head drainage;
  - d. A manual shut-off valve shall be required as close as possible to the point of connection of the water supply to minimize water loss in case of an emergency or routine repair;
  - e. A pressure regulator when the static water pressure is above or below the recommended operating pressure of the irrigation system;
  - f. Backflow prevention devices; and
  - g. Riser protection components for all risers in high traffic areas.
17. Dedicated landscape meters shall be required for all projects greater than 2,500 sq. ft.
18. Irrigation Plans shall identify and site the following:
  - a. Hydrozones
    - i) Each hydrozone shall be designated by number, letter or other designation
    - ii) A Hydrozone Information Table shall be prepared for each hydrozone
  - b. The areas irrigated by each valve;
  - c. Irrigation point of connection (POC) to the water system;
  - d. Static water pressure at POC;
  - e. Location and size of water meter(s), service laterals, and backflow preventers;
  - f. Location, size, and type of all components of the irrigation system, including automatic controllers, main and lateral lines, valves, sprinkler heads and nozzles, pressure regulator, drip and low volume irrigation equipment;
  - g. Total flow rate (gallons per minute), design operating pressure (psi) for each overhead spray and bubbler circuit, and total flow rate (gallons per hour) and design operating pressure (psi) for each drip and low volume irrigation circuit;
  - h. Precipitation rate (inches per hour) for each overhead spray circuit;
  - i. Irrigation legend with the manufacturer name, model number, and general description for all specified equipment, separate symbols for all irrigation equipment with different spray patterns, spray radius, and precipitation rate;
  - j. Irrigation system details for assembly and installation;
  - k. Recommended irrigation schedule for each month, including number of irrigation days per week, number of start times (cycles) per day, minutes of run time per

cycle, and estimated amount of applied irrigation water, expressed in gallons per month and gallons per year, for the established landscape; and

1. Irrigation Plans shall contain the following statement, "I agree to comply with the criteria of the Ordinance and to apply them for the efficient use of water in the Irrigation Design Plan."
19. For each valve, two irrigation schedules shall be prepared identifying the specific water needs of the plants and turf throughout the calendar year: one for the initial establishment period of six months, and one for the established landscape.
20. Irrigation Plans and Planting Plans (19.70.040.C and D) shall be drawn at the same size and scale.
21. Whenever possible, irrigation scheduling shall incorporate evapotranspiration (ET<sub>o</sub>) data from the California Irrigation Management Information System (CIMIS) weather stations to determine the appropriate levels of water application for this climate. A local weather station is located at UC Riverside. ([www.cimis.water.ca.gov/](http://www.cimis.water.ca.gov/))
22. Irrigation system for areas to be accepted for maintenance by the City shall have a centralized control system or controllers that can be programmed and that measure soil moisture and evapotranspiration rates associated with centrally controlled systems.

#### ***E. Soil Management Plan Requirements***

1. After mass grading, the project applicant or his/her designee shall:
  - a. Perform a preliminary site inspection;
  - b. Determine the appropriate level of soil sampling and sampling method needed to obtain representative soil sample(s);
  - c. Conduct a soil probe test to determine if the soil in the landscape area has sufficient depth to support the intended plants; and
  - d. Obtain appropriate soil sample(s).
2. The project applicant or his/her designee shall submit soil sample(s) to laboratory for analysis and recommendation. The soil analysis may include:
  - a. Soil texture;
  - b. Infiltration rate determined by laboratory test or soil texture infiltration rate tables;
  - c. pH;
  - d. Total soluble salts;
  - e. Sodium; and
  - f. Recommendations.
3. The project applicant or his/her designee shall prepare documentation describing the following:
  - a. Soil type;
  - b. Identification of limiting soil characteristics;
  - c. Identification of planned soil management actions to remediate limiting soil characteristics; and
4. The soil analysis report and documentation verifying implementation of soil analysis report recommendations shall be submitted to the City of Perris pursuant to the requirements of 19.70.040.H.3, Certificate of Completion.

#### ***F. Grading Design Plan Requirements, as applicable***

1. The Landscape Plans shall include rough/precise grade elevations prepared for the project by a licensed civil engineer.
2. Rough grading plans shall include Water Quality Management Plan (WQMP) BMPs such as basins, swales, and permeable surfaces other than green landscape.

#### ***G. Landscape Irrigation and Maintenance***

This section applies to all landscape projects subject to this Ordinance. The "Riverside County Guide to California Friendly Landscaping" (Guide) is hereby incorporated by reference to promote water use efficiency.

1. Two irrigation schedules shall be prepared: one for the initial establishment period of six months, and one for the established landscape, which incorporates the specific water needs of the plants and turf throughout the calendar year. The irrigation schedule shall take into account the particular characteristics of the soil; shall be continuously available on site to those responsible for the landscape maintenance; and shall contain specifics as to optimum run time and frequency of watering, and irrigation hours per day. The schedule currently in effect shall be posted at the controller.
2. A regular maintenance schedule shall be submitted to the Development Services Director, property owner, and water purveyor, with the Certificate of Completion (19.70.040.H.3). A regular maintenance schedule shall include, but not be limited to, routine inspection, adjustments, and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning, weeding in all landscape areas and removing any obstruction to irrigation devices.
3. Repair of all irrigation equipment shall be done with the originally installed components or equivalent.
4. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this Ordinance.
5. Information shall be provided to owners of new, single-family residential homes regarding the design, installation, management, and maintenance of water efficient landscapes.

#### ***H. Landscape Plan Check Process***

1. As part of the land development process and prior to construction, the City shall:
  - a. Provide the project applicant with the Ordinance and procedures for permits, plan checks, or design reviews;
  - b. Review the Landscape Plans submitted by the project applicant;
  - c. Approve or reject the Landscape Plans; and
  - d. Issue a permit or approve the plan check or design review for the project applicant.
2. For all landscape projects subject to this Ordinance, the project applicant shall submit complete Landscape Plans prior to construction for review and approval by the Director of Development Services. Planting Plans, Irrigation Plans, Soils Management Plans and Grading Plans shall be reviewed to ensure that all components adhere to the requirements of this Ordinance. A licensed landscape architect shall sign to verify the

Plans comply with this Ordinance. Any Plans submitted without the appropriate signature shall not be accepted for review.

3. A Certificate of Completion shall be completed and signed by a licensed landscape architect prior to issuance of a Certificate of Occupancy or final inspection for a project subject to this Ordinance. The Certificate of Completion and a regular maintenance schedule shall be submitted to the Development Services Director certifying that the landscaping has been completed in accordance with the approved Landscape plans (Planting, Irrigation, Soil Management, and Grading Design) for the project. The Certificate of Completion shall contain the following information:
  - a. Date
  - b. Project information
  - c. Project name
  - d. Project applicant name, telephone, mailing address
  - e. Project address and location
  - d. Property owner name and mailing address
  - e. Prior to backfilling, evidence that the party responsible for irrigation installation conducted a preliminary field inspection of the irrigation system (evidence of field inspection shall be attached).
  - f. The landscaping has been installed in conformance with the approved Planting and Irrigation plans;
  - g. Irrigation audit report performed by a certified irrigation auditor after project installation (audit report shall be attached);
  - h. The smart irrigation controller has been set according to the irrigation schedule;
  - i. The irrigation system has been adjusted to maximize irrigation efficiency and eliminate overspray and runoff; and
  - j. Verification that a copy of the approved complete Landscape plans, irrigation schedule, and maintenance schedule has been provided to the property owner and the local water purveyor (either EMWD or City).
  - k. Verification that the maintenance schedule has been provided to the Development Services Director.
4. At minimum, all landscape irrigation audits shall comply with the "Irrigation Association Certified Landscape Irrigation Auditor Training Manual" (2004 or most current) and shall be conducted by a certified landscape irrigation auditor.
5. The Development Services Director or his/her designee shall have the right to enter upon the project site at any time before, during and after installation of the landscaping, to conduct inspections for the purpose of enforcing this Ordinance.

#### 19.70.50 LANDSCAPE WATER USE EFFICIENCY MEASURES

**A. Restrictions.** The following water conservation measures are intended to avoid water waste, are effective at all times, and are permanent.

1. **Limits on Watering Hours:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 9:00 a.m. and 5:00 p.m. on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very

short periods of time for the express purpose of adjusting or repairing an irrigation system. Overhead irrigation shall be limited to the hours of 8 pm to 9 am.

2. **No Excessive Water Flow or Runoff:** Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.
3. **No Washing Down Hard or Paved Surfaces:** Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high pressure water broom.
4. **Obligation to Fix Leaks, Breaks or Malfunctions:** Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven (7) days, is prohibited.

#### **B. *Landscape Meter Requirements***

1. A separate dedicated meter is required for new landscape areas greater than or equal to 2,500 square feet.
2. The efficient use of water shall be considered in the design of any new landscape area. The MAWA will be calculated for customers that request a new account using the formula in 19.70.040.C of this Ordinance.
3. Prior to the issuance of a meter, the new customer shall calculate the EAWU for each landscape area using the formula provided in 19.70.040.C. For the new meter to be issued, the EAWU shall be reviewed by the local water purveyor to insure the water budget for the landscape area does exceed the MAWA calculated under this Ordinance.
4. New accounts that must comply with equivalent or more stringent water use efficiency measures imposed by another jurisdiction (State of California, public utility companies, etc.), do not need to comply with the requirements of this section of the Ordinance, but may need to provide information about the landscape area to the local water purveyor.

**C. *Enforcement.*** Water waste resulting from inefficient landscape irrigation shall be prohibited. The City of Perris employs random irrigation audits and/or irrigation surveys to insure the landscape area meets the applicable MAWA to ensure water is being used efficiently in its water service areas. Within the EMWD water service area, existing landscaped properties are subject to EMWD's tiered rate water budget and water conservation enforcement procedures.

1. Existing landscapes including green belts, common areas, multi-family housing, schools, businesses, parks, cemeteries, and publicly owned landscapes are subject to review of water usage. For landscapes installed before January 1, 2010, the applicable MAWA (in gallons) =  $(ET_o)(0.62)(0.8)(LA)$ .
  - a. If water bills indicate that the facility is using less than or equal to the maximum applied water allowance for that project site, no action is necessary.

- b. If water bills indicate that the facility is using more water than the maximum applied water allowance, the irrigation system shall be reviewed and fine tuned to the greatest extent feasible to increase efficiency of the system.
- 2. Within both the City of Perris and EMWD water service areas warnings, correction notices (Notice of Violation), citations and/or penalties (including fees) may be issued for any violation of this Ordinance.

19.70.060 LANDSCAPE DESIGN GUIDELINES

This Section shall serve as a guideline only, and additional requirements may be appropriate for special or unique projects, or as determined by the Director of Development Services. Reference is made to Chapter 19.71, Urban Forestry, and the Technical Manual for Landscape Design for supplementary details on conforming to requirements of this Ordinance.

- A. *Street Tree Requirements.*** Street trees shall be incorporated along all street right-of-way and shall be provided to the following specifications:
  - 1. General:
    - a. Type of street trees should be consistent with existing street trees.
    - b. Trees with fruit, nuts, pepper, or other maintenance intensive characteristics are not encouraged for use as street trees.
  - 2. Commercial, Industrial, Multi-Family Residential, Parks and Public Facilities..
    - a. A minimum of one tree per 30 feet of lineal frontage. In order to enhance design, trees may be placed in groupings; however the number of trees provided shall be derived as stated above.
    - b. The minimum size for the street trees shall be 24 inch box.
    - c. Lineal root barriers shall be installed for any street tree which is planted within 5 feet of public right-of-way or sidewalk.
  - 3. Single-Family Residential.
    - a. Standard lots shall have a minimum of one (1) tree per 30 lineal street frontage, however, each lot shall have a minimum of one street tree per lot (cul-de-sac lots).
    - b. Corner lots shall have three (3) street trees, minimum or one (1) street tree for every 30 lineal feet of street frontage.
    - c. Corner lot side yard planting areas between fences/walls and side walks shall be planted with 5 gallon shrubs at spacing no greater than 5'-0" o.c. to achieve a 80 % shrub cover in 5 years and one (1) gallon groundcover at not more than 24" o.c. One (1) gallon vines shall be placed at 20'-0"o.c.
    - d. The minimum size for the street trees shall be 24 inch box.
    - e. Lineal root barriers shall be installed for any street trees planted within 5'-0" or closer to hardscape or walks.

**B. *Median & Parkway Requirements***

- 1. In accordance with the Circulation Element of the General Plan, medians shall be installed along Expressways, Primary Arterials, Secondary Arterials, and other roadways of significant importance as stated below:

Perris Boulevard  
Ethanac Road  
Nuevo Road (east of Interstate 215 only)  
Ramona Expressway  
Placentia Avenue  
Goetz Road  
Murrieta Road (where cross section is 118 feet)  
Harley Knox Boulevard  
Ellis Avenue  
Evans Road  
Redlands Avenue  
Indian Avenue

2. The above named streets shall not be construed to nullify requirements for medians along other roads, or to nullify any median treatment required within any specific plan. Medians along other streets may be required in accordance with traffic control needs, and if required shall be landscaped according to these guidelines.
3. The design of the median shall be consistent for each street and comply with the following guidelines:
  - a. Turf treatment shall be minimized.
  - b. Water runoff into the street shall not occur,
  - c. Trees, shrubs, and groundcover shall be incorporated.
  - d. Shrub placement shall be designed to form natural groupings that will not require excessive pruning or hedging, with varying heights, to create a multi-tiered effect. Shrubs shall be spaced to provide 80% coverage of planting area within five (5) years of installation.
  - e. Shrubs within medians shall not exceed 36 inches in height. Within 50 feet of the end of the median, plant materials shall not exceed 24 inches in height.
4. Parkway slopes shall be designed to match the parkway planting theme and plant materials. Slopes shall be a maximum of 3:1. Slopes greater than 3:1 shall use a split/tiered system with a 4'-0" wide, minimum, planter area between the block wall and retaining wall.
5. Natural clustering of tree species is encouraged.
6. Street trees shall be placed to avoid conflicting with utilities and visibility site lines. Street tree placement shall comply with Landscaping Detail L-20 of the Technical Manual for Landscape Design. Street trees in medians shall comply with Landscaping Detail L-21 of the Technical Manual for Landscape Design for distance from the ends of medians. All trees within medians shall have lineal root barriers.
7. Street trees placed within 5'-0" of hardscape elements or walls shall have lineal root barriers.
8. Street trees placed in turf shall have a minimum 4'-0" diameter clear ring around the tree trunk with 3 inches of wood mulch within the ring.
9. A 3-inch thick uniform layer of wood mulch shall be placed in planting areas.
10. Medians shall be designed to have a 2'-0" wide hardscape surface on one edge. Up to 30% of the total landscaped area may be a combination of hardscape and inert or natural groundcovers.

11. Hardscape concepts that are integrated into the overall design and do not dominate the landscape design are acceptable, as determined by the Development Services Director.
12. Landscape designs should be easily maintained.
13. Evergreen trees shall be included in the landscape design, and the inclusion of deciduous varieties is optional.
14. Above grade irrigation equipment, such as controllers, sensors, and backflow devices shall be placed in shrub planting areas for screening purposes.
15. Utility vaults or boxes, irrigation equipment and other above grade utility elements shall not be placed at intersections.
16. Irrigation equipment shall comply with requirements of Section 19.70.040.D. Use of sprayheads is discouraged, and shall not occur within medians with width of 14 feet or less.
17. The landscape design shall not create any sign distance or visibility problems.

**C. Residential Subdivision Requirements**

1. Parkways along side yards on corner lots and other public areas such as bus stops and cluster-box mailbox areas shall be irrigated and metered separately, and clearly identified by a concrete mow strip, wall or element easily distinguished from private adjacent landscaping. These areas shall be accepted for maintenance by the City.
2. Street trees shall be provided per 19.70.060. A, Street Tree Requirements.
3. A minimum of two (2) 15 gallon front yard trees shall be provided (in addition to street tree requirements).
4. Shrub placement shall achieve 50% cover of the planting area within 5 years of installation. 50% of the shrub quantity shall be 5 gallon or larger. 5-gallon vines shall be placed on fences and walls at a minimum of 20'-0" oc.
5. The front yard turf area shall not exceed 70% of the total planting area.
6. For trees placed in turf, provide a 4'-0" wide minimum clear ring.
7. Concrete stepping pads shall be placed to provide access from side yard gates to driveway and/or walk.
8. Irrigation systems shall be fully automatic. The irrigation controller shall be placed in the garage. Irrigation control wires shall be routed in a 2" diameter Schedule 40 PVC conduit with a minimum of 12" cover.
9. Irrigation valves shall be placed in a location away from the residential entry where they shall be screened with plant materials.
10. All irrigation lines shall be Schedule 40 PVC.
11. The use of low volume irrigation is encouraged in shrub planting areas. Turf shall be irrigated with 6" pop-up heads, when shrubs are irrigated with 6" pop-up heads, when shrubs are irrigated with spray heads 12" pop-up heads shall be used.
12. Automatic rain shutoff devices shall be provided.

**D. Multi-Family Residential Development**

1. Street trees shall be provided as stated in Subsection A, Street Tree Requirements.
2. Turf area should be confined to use areas such as play areas, and shall otherwise be minimized.

3. Trees, shrubs, groundcovers, and annual color plant material shall be provided, and the plans shall integrate into the design of the multi-family project.
4. Enhanced landscaping shall be provided at entries along with automatic security gates. Such enhanced landscaping shall not adversely affect sight lines for vehicles entering or leaving the project.
5. In parking areas, one 24" box tree shall be provided for every 6 parking stalls. At each end of parking stalls, an 8" wide minimum island shall be provided. Two 24" box trees shall be installed in each parking island. Palm trees may be used in parking islands: when palm trees are used they shall have a 12' high minimum brown trunk. Trees in island planters shall be installed with lineal root barriers. Thirty percent (30%) of the trees in project shall be 36" box size or larger.
6. Between parking islands trees shall be placed in 4' minimum square diamond planters. Parking lot trees in diamond planters shall be installed with root barriers.
7. The use of turf grass shall conform to the MAWA and the EAWU for the project.
8. Parking areas shall be screened by a 36" high shrub border. The shrub border shall be created by installing a double row of 5 gallon shrubs at 3'-6"oc.
9. Trash enclosures, shall be screened with a 6' high shrub hedge. To achieve this hedge, 5-gallon shrubs shall be installed at no greater than 4'oc.
10. Shrubs shall be placed within the planting areas at 1 shrub per every 30 square feet, except where screen requirements may require a denser planting of shrub material. Eighty percent of the required shrub quantity shall be 5 gallon or larger.
11. Where pedestrian plazas, outdoor courtyards, or dining areas, occur shade trees shall be placed to provide a 50% summer time shade cover.
12. Outdoor dining areas shall be enclosed by a 30" high masonry wall and/or shrub hedge. Place 5 gallon or larger vines on structures with one vine per 400 s.f. of structure (two vines minimum).
13. Overhead arbor shade structures may be used to provide shade cover to pedestrian areas. Overhead structures shall be planted with vines.
14. Five-gallon sized vines shall be placed on walls and fences at 20' oc.
15. Planting areas may incorporate the use of inert groundcovers. Up to 25% of the planting area can be covered by an inert groundcover. Shrub planting areas shall have 80% cover after three years of installation.
16. Eighty percent of the shrubs installed shall be 5 gallon or larger.
17. Planting within the site shall incorporate plant materials that complement the streetscape.
18. Site amenities for the project shall include some of the following: clubhouse, pool and spa, basketball court, children's play area, picnic shelters and tables, outdoor patios, lawn bowling, walking trails, dog play area, tennis courts or other court games. The City shall determine which recreation elements will be required.
19. Front yards of duplexes or triplexes shall comply with the standards for typical front yards.
20. Rear and side yards shall be fenced to comply with the standards for single-family housing.

### **E. *Slope Stabilization & Planting***

1. Slopes that are 3:1 or steeper and 4 feet or higher, shall plant one approved tree for every 400 square feet, with 70 % of trees 15 gallons sized, and 30% being 5 gallon sized. Trees shall be placed in informal groupings, and be a mix of deciduous and evergreen.
2. Shrubs are to be placed with like species grouped in informal patterns according to hydrozones. Shrubs shall be provided at the rate of one 5-gallon ornamental shrubs for every 75 square feet, and 1 gallon perennial flower/ornamental shrub for every 60 square feet.
3. In addition to shrub materials, an approved groundcover shall be installed using rooted cuttings or 1-gallon plants.
4. Water-wise plants materials shall be used for slope plantings.
5. For slopes 5'-0" in height or greater, an approved erosion control fabric shall be installed. Plant materials shall be installed after erosion control fabric has been installed.
6. Slopes that interface with the street landscape shall incorporate the planting scheme and materials of the street landscape.

### **F. *Commercial Landscaping Requirements***

#### **1. Parking Areas**

- a. Tree size: Minimum of 15 gallon, 30 percent of trees shall be 36 inch box or larger.
- b. A minimum of one 24-inch box tree per 6 parking stalls
- c. Shade trees shall be provided in accordance with Chapter 19.71.
- d. Trees with fruit, nuts, pepper, or other maintenance intensive characteristics are not encouraged for use as street or parking area trees.
- e. Between parking islands trees shall be placed in 4'-0", minimum, square planters.
- f. At each end of parking stalls, an 8'-0" wide, minimum, island planter shall be provided with two 24" box trees.
- g. Island planter trees shall be installed with lineal root barriers.
- h. Parking areas and drive-through lanes shall be screened by a 36-inch high shrub border using a double row of 5-gallon shrubs at 3 ½ feet o.c.
- i. A minimum of 10 percent of the site shall be landscaped.
- j. Loading areas shall be screened.
- k. Expanses of building and walls shall be broken up with landscaping.
- l. Trash enclosures, loading/unloading areas, and truck parking areas shall be screened/broken up with 6'-0" high shrub hedge. Hedges shall be 5 gallon shrubs spaced at 4'-0" o.c., maximum.
- m. Where loading/unloading areas abut residential areas, parks or a street a 25'-0" planting buffer area shall be provided in addition to any setback of right of ways. A mixture of vertical form deciduous and evergreen trees shall be placed within the planting buffer at 25'-0" o.c. maximum. 15-gallon shrubs shall be provided at 6'-0" maximum to provide a six-foot high screen adjacent to residential areas or parks. Where the loading/unloading area is adjacent to a street, a 6'-0" high shrub screen shall be placed adjacent to the loading/unloading area. In addition to the shrub screen of loading and service areas, trees shall be placed at 15'-0" to 20'-0" o.c.

50% of the trees used for screening shall be 36-inch box size, and 50% shall be 24-inch box size.

- n. Shrubs shall be placed within the planting areas at 1 shrub per each 30 square feet, except where screen requirements may require a denser planting. 80% of the required planting shall be 5 gallon or larger.
- o. Planting within the site shall incorporate plant materials that complement the streetscape.
- p. Enhanced landscaping shall be provided at all points of entry to the site.
- q. Street trees as stipulated in street tree portion of this Ordinance shall be provided.

### ***G. Industrial Landscaping Requirements***

- 1. Same as Section F.

### ***H. Model Home Complex Landscape Requirements***

- 1. Landscaping plans as described in Section 19.70.040 shall be required.
  - a. Model homes complexes shall use signs and provide written information to demonstrate the principles of water efficient landscapes as described in this ordinance.
  - b. Signs shall identify the model exemplifying water efficient landscape elements such as hydrozones, irrigation equipment, and other features that contribute to the overall water efficient theme.
  - c. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.
- 2. A minimum of 25 percent of the model homes shall be landscaped with xeriscape designs.
- 3. All shade structures, arbors, gazebos, pergolas, decks or other structures used in the model complex shall be designed and constructed to meet City building codes.
- 4. All trap fencing shall be located outside of the public right-of-way. Trap fencing must be secured to be stable throughout the sales period of the model homes.
- 5. Temporary landscaping shall be provided within a planter area surrounding the sales parking area, as follows:
  - a. Twenty-four inch box trees shall be planted near parking spaces at a rate of one tree per every two spaces. Additional trees shall be installed so that the total quantity of trees equals or exceeds the rate of one tree per 30 linear feet. Additional trees shall be sized 24" box or larger. Planting schemes must incorporate the approved City street trees in the model front yards.
  - b. Planting concepts used shall employ waterwise garden design principles. This shall include plant selection, reduction of the amount of turf to comply with the typical front yard standards, and use of mulch materials, inert groundcovers and hardscape.
  - c. A shrub border shall be installed at the perimeter of the parking lot and maintained at a height of 36". Minimum five-gallon sized shrubs within the screening border shall be installed at 30" o.c. maximum.
- 6. Model home front yard designs must use concrete mow strip between any turf and plantings.

7. A minimum of 15% of front yard shrubs used shall be 15-gallon material. Not more than 30% of the shrubs shall be one-gallon material. All remaining shrubs shall be five-gallon sized.
8. Turf used in the landscape design shall not exceed the MAWA and EAWU for the model home complex (the project).
9. Groundcover shall be installed in all non-turf planter beds, including up to the stems of shrubs and the trunks of trees.

#### ***I. Landscape for Screening***

When landscaping is provided for screening purposes, the following criteria shall be met:

1. Plant material shall be sized and spaced appropriately to ensure 100 percent screening within three years of installation.
2. The plant material shall be of variety that will retain screening qualities at all times of the year.
3. The landscape shall be maintained in a viable and healthy growth condition.
4. The landscape screen shall be served by a permanent automatic irrigation system..

### 19.70.070 INSPECTIONS AND CERTIFICATION

#### ***A. Inspections for Privately Maintained Landscaping***

Upon approval of the Landscape Plans, the Development Services Department shall provide the applicant with one set of the approved plans to be kept on the project site for inspection purposes. For privately maintained areas, a minimum of three (3) landscape inspections shall be conducted by the City, as follows:

1. Upon the installation of the irrigation equipment, when trenches are open and the system can be pressurized to 150 pounds-per-square-inch for four hours;
2. After soil preparation, at the time the plant materials are positioned and ready to plant;
3. And at the time plant materials are fully installed and the irrigation system is functional.

#### ***B. Inspections for Publicly Maintained Landscaping***

Upon approval of the Landscape Plans, the Development Services Department will provide the applicant one set of the approved plans to be kept on the project site for inspection purposes.. For areas to be accepted for maintenance by the City, a minimum of four (4) landscape inspections shall be conducted by the City, as follows:

1. Upon the installation of the irrigation equipment, when trenches are open and the system can be pressurized to 150 pounds-per-square-inch for four hours;
2. After soil preparation, at the time the plant materials are positioned and ready to plant;
3. At the time plant materials are fully installed and the irrigation system is functional. Any equipment, devices, lighting, pumps and appurtenances must be fully functional at the time of the third inspection. When the third inspection is approved and finalized by the City's Landscape Architect, a one-year period of maintenance will be required prior to the fourth inspection.

4. The fourth inspection will take place a minimum of one year after obtaining approval of the third inspection. This time period will be extended if the improvements are not maintained at a high standard as required during the year. When the fourth and final inspection is approved and finalized by the City's Landscape Architect, the City will accept the improvements for maintenance. . The following shall be provided before the fourth inspection can be approved and finalized by the City's Landscape Architect and the Public Works Department:
  - a. A set of City approved "as-builts" on mylar.
  - b. A Landscape and Irrigation Maintenance Schedule shall include the checking, routine inspection, adjustment and repair of the irrigation system and its components; resetting and adjusting the automatic controllers; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning and weeding in all landscaped areas.
  - c. A Maintenance Schedule for non-landscaped areas shall include the checking, routine inspection, adjustment, painting, replacement and repair of lighting; playground equipment; monument areas and signage; and other appurtenances.
  - d. The Landscape Plan Check Application and Water Budget Agreement entered into with Eastern Municipal Water District or the City of Perris, along with a copy the most recent Monthly Water Budget Statement for Landscape Meters as provided by EMWD or the City of Perris.
  - e. Meter and account information for all utilities.
  - f. Equipment, warranties, keys, manuals and software.