

**Chapter 18.56**

**Water Efficient Landscaping**

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**Section 18.56.010 Purpose**

The State Legislature determined in the Water Conservation in Landscaping Act of 2006 (the "Act"), Government Code Sections 65591 et seq., that the state's water resources are in limited supply. The Legislature also recognized that while landscaping is essential to the quality of life in California, landscape design, installation, maintenance and management must be water efficient. The purpose of this chapter is to establish water use standards, which implement the requirements of the Act in order to:

- A. Promote the values and benefits of landscapes while recognizing the need to utilize water and other resources as efficiently as possible.
- B. Establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes.
- C. Encourage the use, when available, of tertiary treated recycled/reclaimed water.
- D. Use water efficiently and without waste by setting a Maximum Applied Water Allowance (MAWA) as an upper limit for water use and reduce water use for landscaping to the lowest practical amount.
- E. Encourage the modification of existing landscapes in order to reduce the amount of water used for irrigation purposes. (The City acknowledges that modification may require up-front financial investment by property owners. However, this investment is intended to be

recovered over time due to the reduction in water use that leads directly to a reduction in cost associated with that use.)

F. Promote coordination among local jurisdictions and agencies relating to the efficient use of water.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.020 Interests Served**

This chapter seeks to advance the following goals without permitting a violation of any other lawful ordinance or state law:

A. Advance the goals and policies of the General Plan and Development Code.

B. Ensure that required landscaped areas are well integrated into the design of development projects at the earliest possible developmental stage.

C. Promote sound design practices and ensure that landscaped areas within the city will be maintained in a healthy and thriving condition.

D. Promote landscaping which will facilitate best management practices (BMPs) for storm water management in connection with new and established landscape areas.

E. Preserve water resources by requiring water conservation methods to be implemented in the design, development, and maintenance of landscaped areas.

F. Provide the property owner, builder, or developer with as much latitude as possible when designing, installing, and maintaining the required landscaping while still adhering to applicable provisions of the Act.

G. Establish landscape design and development standards and suggest plant materials appropriate to develop consistent and high quality landscaping throughout the city.

H. Prevent the loss of topsoil via erosion and subsequent siltation of streams, channels, estuaries, or lagoons.

I. Require the use of drought tolerant plant materials and water efficient irrigation methods in new development and encourage their use when replacing existing landscaped areas.

J. Encourage the recognition and retention of existing landform, topography, and native vegetation in project design to the maximum extent possible.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.030 Findings**

Prior to the adoption of this ordinance, a report was prepared assessing the conservation effects of the ordinance. Based on that report, and the evidence contained therein, the City Council, in adopting this ordinance, has determined and found that the water conservation that would be achieved through the adoption of this ordinance was at least equivalent to the conservation that would be achieved through the adoption of the model ordinance developed by the Department of Water Resources.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.040 Definitions**

For the purposes of this chapter, certain terms, words, and phrases used in this chapter and in the landscape manual, shall be defined as follows:

**“Applied water”** means the portion of water supplied by the irrigation system to the landscape.

**“Automatic irrigation controller”** means an automatic timing device used to remotely control valves that operate an irrigation system. The controller(s) shall schedule irrigation events using either evapotranspiration (ET<sub>o</sub>) (weather-based) or moisture sensor data.

**“Backfill”** means soil which is replaced in a hole after excavation and placement of irrigation lines and/or plant materials.

**“Building permit”** means a permit to engage in a certain type of construction on a specific location.

**“Certificate of completion of landscape installation”** means a letter prepared by the project landscape architect certifying that he/she has observed the installation of the irrigation and planting and that it has been installed per the approved landscape construction plans.

**“Covered project”** means a project described in Section 18.56.050, excluding those projects listed in Section 18.56.060.

**“Conceptual landscape plans/documents”** mean rendered plans graphically identifying, by symbol or call-out, the quantity and location of plant species and hardscape areas proposed for a project site.

**“Cool season grasses”** mean turf that remains green in the winter months. Cool season grasses include, among others, annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue.

**“Director”** has the meaning set forth in Chapter 18.02 of the Vista Development Code.

**“Discretionary permit”** means any permit requiring a decision making body to exercise judgment prior to its approval, conditional approval or denial.

**“Ecological restoration project”** means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

**“Enhanced paving”** means brushed or stamped concrete, pavers, stone, and other decorative flat, solid surfaces intended for vehicular and/or pedestrian traffic.

**“Erosion”** has the meaning set forth in Section 17.56.040 of the Vista Development Code.

**“Erosion control plan”** has the meaning set forth in Section 17.56.040 of the Vista Development Code.

**“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.

**“Estimated total water use (ETWU)”** means the estimated total water use in gallons per year for a landscaped area.

**“ET adjustment factor (ETAF)”** means a factor of 0.7 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

**“Evapotranspiration or reference transpiration (ET<sub>o</sub>)”** means a standard measurement of environmental parameters that affect the water use of plants. ET<sub>o</sub> is given in inches per day, month, or year and is an estimate of the evapotranspiration of a large field of four

inches to seven inches tall, cool season turf that is well watered. Reference evapotranspiration is used as the basis of determining the MAWA so that regional difference in climate can be accommodated.

**“Final approval of landscape installation”** means an acknowledgment or certification of the City Planner that he or she has received a certificate of completion of landscape installation and has determined that the landscaping has been installed and properly maintained for a period of one year as required by Section 18.56.170.

**“Final inspection submittal”** means information and documentation which must be provided to the City Planner prior to a final inspection of project landscaping. Specific items to be included as part of the submittal are identified in Section 18.56.080.

**“Grading”** has the meaning set forth in Section 17.56.040 of the Vista Development Code.

**“Hardscape”** means any durable surface material, pervious or impervious.

**“High water usage”** means a plant species identified as having a high plant factor.

**“Homowner provided landscaping”** means landscaping installed by or on behalf of the owner of a single-family residence.

**“Hydrozone”** means a portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated.

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

**“Invasive species”** means species of plants not historically found in California that spread outside cultivated areas and have the potential to damage environmental and/or economic resources.

**“Irrigation efficiency (IE)”** means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this ordinance is 0.71.

**“Irrigation system”** means a centrally controlled, permanent automatic system designed to provide the proper amount of water to planted areas.

**“Landscape architect”** means a person who holds a license to practice landscape architecture in the state of California, pursuant to Business and Professions Code, Division 3, Chapter 3.5, Section 5615.

**“Landscape area”** means an area with outdoor plants, turf, and other vegetation that uses water provided by the Vista Irrigation District or other local water purveyor. A landscape area includes water features either in an area with vegetation or that stands alone. A landscape area does not include the footprint of buildings, structures, decks, patios, sidewalks, driveways, gravel or stone walkways void of plant materials, paved portions of parking lots or other hard landscape. A landscape area does not include an area without irrigation designated for non-development, such as designated open space or area with existing natural vegetation or a transition zone.

**“Landscape construction plans/documents”** mean a set of precise drawings and details, used with specifications, for the construction of a landscape project. If a conceptual landscape plan was required, these landscape construction plans shall be consistent with them.

**“Landscape documentation package”** means a package of drawings and other documents consisting of three submittals (Conceptual Landscape submittal, Landscape

Construction submittal, and Final Inspection submittal) demonstrating that the landscape design and installation complies with the requirements of this ordinance.

**“Landscape Manual”** means the City of Vista Landscape Manual (hereinafter referred to as the “Manual”), as may be amended from time to time.

**“Low head drainage”** means a sprinkler head or other irrigation device that continues to emit water to the zone in which it is located after it has shut off.

**“Low volume irrigation”** means any equipment that uniformly delivers a low volume of water to the landscape.

**“Low water usage”** means a plant species identified as having a low plant factor.

**“Maximum applied water allowance (MAWA)”** means the maximum allowed water use for a specific landscape area based on the square footage of the area, the ETAF, and the reference ETo.

**“Medium water usage”** means a plant species identified as having a medium plant factor.

**“Mulch”** means an organic material, such as leaves bark, straw or inorganic mineral materials, such as rocks, gravel or decomposed granite left loose as applied to the soil surface to reduce evaporation, suppress weeds, moderate soil temperature or prevent erosion.

**“Native vegetation”** means plant species and varieties which are indigenous to the Southern California area.

**“Open space”** means areas set aside for active or passive recreational use. Many of these areas are natural, many are parks, and other recreational facilities and set apart from other development by property lines or other distinct elements.

**“Operating pressure”** means the pressure at which a system of sprinklers is designed to operate, usually indicated at the base of a sprinkler.

**“Outdoor ‘WaterSmart’ package”** means a document/documents, for example, leaflets and a checklist of recommendations, describing landscape water conservation principles and techniques appropriate to small landscape design and installation.

**“Overspray”** means the water from irrigation or that is delivered outside an area targeted for the irrigation and makes contact with a surface not intended to be irrigated.

**“Parkway”** means the area of a public or private road right-of-way that is between the curb and sidewalk or between the sidewalk and the property line of the adjacent public or private property, which is used for landscaping and/or pedestrian access.

**“Pervious”** means any surfaces or material that allows the passage of water through the material and into underlying soil.

**“Plant factor”** means a factor that, when multiplied by ETo, estimates the amount of water used by plants. For purposes of this ordinance, the following plant factors shall apply: very low water use plants - 0.1; low water use plants - 0.3; average water use plants - 0.5; high water use plants - 0.8.

**“Point of connection”** means the source of water for a specific irrigation system.

**“Precipitation rate”** means the rate of application of water measured in inches per hour.

**“Public water purveyor”** means a public utility, municipal water district, municipal irrigation district, or municipality that delivers water to consumers.

**“Record drawing or as-built plans”** means a set of drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

**“Recreation area”** means an area dedicated to active play, such as parks, sports fields, and golf courses.

**“Recycled/reclaimed water”** means water obtained from the treatment of domestic water waste which is suitable for direct beneficial use or a controlled use that otherwise would not occur, and also meets the highest level in conformance with the California Code of Regulations, Title 22, Division 4, Chapter 3 (use of recycled water for irrigation and for impoundments), currently sections 60304 and 60305.

**“Reference evapotranspiration”** or **“ET<sub>o</sub>”** means a standard measurement of environmental parameters that affect the water use of plants. ET<sub>o</sub> is given in inches per day, month, or year and is an estimate of the evapotranspiration of a large field of four inches to seven inches tall, cool season turf that is well watered. Reference evapotranspiration is used as the basis of determining the MAWA so that regional difference in climate can be accommodated.

**“Rehabilitated landscape”** means any re-landscaping project that requires a permit.

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

**“Slope”** means an expanse of rising or falling land.

**“Soil”** means the growing medium available for plant growth.

**“Soil moisture sensing device”** or **“soil moisture sensor”** means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

**“Special landscaped area (SLA)”** means an area of landscape that falls into one of the following categories:

- A. Is used for growing edible plants including community gardens.
- B. Is irrigated with recycled/reclaimed water.
- C. Is used for active play, or recreation, such as a park sports field or turf on a golf course that provides a playing surface or a culturally significant community space, as determined by the City Planner.

**“Sprinkler head”** means a device which delivers water through a nozzle.

**“Static water pressure”** means the pipeline or municipal water supply pressure when water is not flowing.

**“Station”** means an area served by one valve or by a set of valves that operate simultaneously.

**“Street trees”** mean trees planted along streets within public or private road rights-of-way.

**“Tentative approval of landscape installation”** means an approval of the City Planner that the landscaping has been installed in accordance with the landscape documentation package and that such landscaping, if properly maintained for a period of one year, will be eligible to receive a final approval of landscape installation.”

**“Transitional area”** means a portion of a landscaped area that is adjacent to a natural or undisturbed area and is designed to ensure that the natural area remains unaffected by plantings and irrigation installed on the property.

**“Turf”** means a groundcover surface of mowed grass.

**“Valve”** means a device used to control the flow of water in the irrigation system.

**“Vegetated area”** means an area with vegetation that is irrigated.

**“Very low water usage”** means a plant species identified as having a low plant factor.

“**Warm season grasses**” mean turf that grows during warm weather but becomes dormant during cold weather. Warm season grasses include, among others, Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass.

“**Water conservation concept statement**” means a one-page checklist and a narrative summary of the project.

“**Water conservation plan**” means a report consisting of water management procedures, including design and maintenance procedures that result in the saving of water.

“**Water feature**” means a design element where open water provides an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or storm water best management practices that are not irrigated and used solely for water treatment or storm water retention are not water features and, therefore, are not subject to the water budget calculation.

“**WUCOLS**” means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources, and the Bureau of Reclamation, as may be amended from time to time.

(Prior Code Appendix A 2002; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

#### **Section 18.56.050 Applicability**

A. Unless otherwise exempted by Section 18.56.060, the submittal of a landscape documentation package, as required by Section 18.56.080, shall be required for the following projects:

1. Commercial, industrial, institutional, mixed-use, and multi-family residential projects and/or developments for which a building and/or grading permit is required.
2. All developments which have been approved through a Site Development Plan, Plot Plan Review, Special or Minor Use Permit, Planned Residential Development, Condominium Housing Permit, Specific Plan, or any other discretionary permit.
3. All public projects containing a landscaped area greater than 2,500 square feet.
4. Any residential subdivision containing five or more lots or dwelling units.
5. Any residential subdivision containing fewer than five lots or dwelling units where common area landscaping is required as a condition of Map approval.
6. Model homes in a residential subdivision.
7. New single-family residences with homeowner-installed landscaped area greater than 5,000 square feet.
8. New single-family residences with developer-installed landscaped area greater than 2,500 square feet.
9. All graded hillsides with a slope exceeding 3:1.
10. New or rehabilitated landscaped areas on lots containing existing single-family residences where the landscaped area is equal to or greater than 5,000 square feet.
11. Cemeteries.

B. The water efficiency standards contained in this chapter shall be met for all projects regardless of the requirement to submit a landscape documentation package.  
(Prior Code Appendix A 2003; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.060 Exemptions**

- A. This ordinance does not apply to the following:
1. Registered local, state, or federal historical sites, provided that the historical designation extends to the landscaped areas to be exempted.
  2. Ecological restoration projects that do not require a permanent irrigation system.
  3. Plant collections, as part of botanical gardens and arboretums open to the public.
    1. Residential subdivision containing fewer than five dwelling units where no common-area landscaping has been required as a condition of map approval.
    2. Any single-family structure being rebuilt as a result of its destruction by natural causes.
    3. Second Units and guesthouses with landscaped areas of less than 5,000 square feet.
    7. Discretionary projects which propose an allowance of a particular use on a property that has already received discretionary approval, and where no construction, grading, etc., is proposed.

B. The water efficiency standards contained this chapter shall be met for all projects regardless of the requirement to submit a landscape documentation package.  
(Prior Code Appendix A 2001; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.070 Landscape Manual**

The Director of Community Development is authorized to prepare rules to assist in the implementation of the provisions of this chapter, provided that no implementing rules shall be in conflict with the provisions of this chapter or the Act. The rules shall be set forth in a Landscape Manual (hereinafter referred to as the "Manual"). The Manual shall include rules for reviewing the design of landscaping and irrigation improvements, maintaining landscaping, and assessing compliance with this chapter. It shall be revised from time to time as deemed necessary by the Director in order to ensure continued compliance with the Act or any revisions thereof, and to improve the appearance of landscaped areas. All persons and property owners subject to this chapter shall comply with the rules set forth in the Manual.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.080 Landscape Documentation Package; Processing and Approval Requirements**

A. All work on a covered project undertaken by an applicant and/or a landowner must be processed, completed, and maintained in accordance with this chapter. No covered

project may be initiated until a conceptual landscape submittal and a landscape construction submittal have been provided to and approved by the City Planner in accordance with this section. As required by this section, an applicant and/or landowner must prepare a final inspection submittal for all work undertaken on a covered project and obtain approval of that submittal. Following the City's approval of a final inspection submittal, the applicant and/or landowner shall obtain a tentative approval of landscape installation and a final approval of landscape installation in accordance with Section 18.56.170.

B. All parts of the Landscape Documentation Package (hereinafter referred to as the "Package") must be prepared by a licensed landscape architect, licensed civil engineer, licensed architect, or other landscape professional licensed by the state to do this work, unless otherwise noted. The content, preparation, and procedure for submitting the Package shall comply with the terms of this chapter and the Manual.

C. Plans and documents must be stamped and signed by the licensed professional who is responsible for their preparation. Only one wet-signed copy of the plans and documents will typically be required, however, staff reserves the right to request additional wet-signed copies should they be deemed necessary.

D. The Package consists of the following three submittals; each submittal must be approved by the City Planner as satisfying the requirements of this chapter.

1. Conceptual Landscape Submittal, consisting of:

- a. Title Sheet
- b. Grading Plan
- c. Planting Plan
- d. Water Conservation Plan
- e. Estimated Total Water Use (ETWU) worksheet (included as an appendix in the Manual)
- f. Any additional documentation and/or information deemed necessary by the City Planner in order to accurately and fairly review the proposed project.

2. Landscape Construction Submittal, consisting of:

- a. Title Sheet
- b. Soil Management Report
- c. Planting Plan (including details and specifications. Any changes to the planting plan approved in the Conceptual Landscape Phase shall be clearly identified on this plan.)

- d. Irrigation Plan (including details and specifications)
- e. Grading Plan
- f. Water Conservation Plan
- g. Estimated Total Water Use (ETWU) worksheet (included as an appendix in the Manual)
- h. Landscape and Irrigation Maintenance Schedule
- i. Any additional documentation and/or information deemed necessary by the City Planner in order to accurately and fairly review the proposed project

3. Final Inspection Submittal, consisting of:

- a. Certificate of completion of landscape installation
- b. Any additional documentation and/or information deemed necessary by the City Planner in order to accurately and fairly review the proposed project

E. The components of the Package shall be submitted as follows:

1. The Conceptual Landscape Submittal shall be submitted concurrently with an application for a discretionary permit, or at a time to be determined by the City Planner if a discretionary permit is not required.

2. The Landscape Construction Submittal shall be an independent document to be submitted concurrently with precise grading plans, or at a time to be determined by the City Planner if a precise grading plan is not required.

a. No grading or building permits shall be issued until plans and documents required as part of this phase have been approved by the City Planner or his or her designee.

3. The Final Inspection Submittal shall be submitted prior to a request for a final inspection of a project by the City Planner or his or her designee.

F. The following information and formatting shall be provided:

1. All plans shall be submitted on 24" x 36" size sheets.

2. Accompanying studies, reports, etc. may either be submitted as bound 8 1/2" x 11" documents or be printed on plan sheets.

3. The project address (if one has been assigned), Assessor's Parcel Number(s), and landscape architect of record shall be identified on every sheet.

4. A north arrow and scale, property lines, and easements are required on all plans.

a. No specific scale is required so long as the details shown on the plans are legible.

b. If necessary in order to provide legibility, plans may be shown on more than one page. If this is done, a full site plan shall be provided which identifies the page(s) on which each area of the site is shown in full detail.

5. Additional information and formatting instructions can be found below or in the Manual.

G. Information necessary for each item identified in 18.56.080.D shall be as follows:

1. Title Sheet

a. In addition to the information contained in this section, the title sheet shall contain items as described in the Manual.

b. The following statement shall be provided on the plan, and shall be signed by both the applicant and the landscape architect responsible for the preparation of the plan(s):

"I am familiar with and agree to comply with the requirements for landscape improvements as described in Chapter 18.56 of the Vista Development Code. This plan has been prepared in compliance with those regulations. I certify that the plan implements the regulations to provide efficient landscape water use."

c. The percentage and acreage (if greater than 0.5 acres) or square footage (if 0.5 acres or less) of a project site to be landscaped shall be identified.

d. It shall identify whether the submittal is for the conceptual phase or construction phase.

2. Planting Plan

a. The planting plan shall be prepared by a licensed landscape architect, civil engineer, architect, or other landscape professional licensed by the State of California to do this work, and shall, at a minimum:

i. Include a site plan showing the location, type, quantity, size, etc., of existing and proposed landscape species to be maintained and removed, and proposed water features and hardscape areas. A detailed description shall be provided for all proposed water features.

ii. Identify the MAWA and ETWU for the project, including calculations used to determine them. The calculations shall be based on the formulas found in Section 18.56.090.

iii. Provide a table identifying, by botanical and common name, all proposed vegetation, and all existing vegetation that will be maintained on-site. For proposed vegetation, include the quantities, container size, installation size for trees (installed height and width), location, and associated hydrozone for each species.

iv. Identify areas permanently dedicated to the growth of edible plants.

v. Provide plants in transitional areas (between areas of vegetation to be kept in a natural state and areas of proposed landscaping) that consist of a combination of site-adaptive and compatible native or non-native species. Irrigation in transitional areas shall be designed so that no overspray or runoff is applied to areas left in a natural state.

vi. Identify passive and active recreational areas.

vii. The planting design shall group plants in hydrozones based on the moisture requirements of those plants. A hydrozone may mix plants of low and moderate water usage or plants of moderate and high water usage, but shall not mix plants of low water usage with those of high water usage. Plant factors are available from WUCOLS.

viii. Identify any rain harvesting or catchment technologies (e.g. rain gardens, cisterns, etc.).

b. The following additional information is also required for the landscape construction submittal:

i. Planting details and specifications.

ii. A landscape maintenance plan which details the process through which landscaping will be maintained in a healthy and thriving condition.

c. Further information regarding the layout and design of landscaped areas can be found in the Manual.

3. Irrigation Plan

a. Irrigation plans shall be prepared by a licensed landscape architect, civil engineer, architect, or other landscape professional licensed by the State of California to do this work and shall include, at minimum, the following information:

i. The location, type and size of all components of the irrigation system that will provide water to the landscape area, including, but not limited to, controllers, water lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators and backflow devices.

(1) Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface.

(2) Slopes greater than 25 percent shall utilize irrigation components that apply precipitation at a rate of 0.75 inches per hour or less to prevent runoff and soil erosion. An applicant may employ an alternative design if the plan demonstrates that no runoff or erosion will occur and is approved as part of the erosion and sediment control plan required by Section 17.56.070 of the Vista Development Code.

ii. The irrigation water source and type (potable or recycled/reclaimed), point of connection, the static water pressure at the point of connection, the application rate in inches per hour and the design operating pressure in pounds per square inch for each station. A pressure loss calculation shall be provided for the worst case valve.

iii. Irrigation schedule which includes the following information:

(1) A description of the automatic irrigation system that will be used for the project.

(2) The ETo data relied upon to develop the irrigation schedule, including the source of the data.

(3) The time period when overhead irrigation will be scheduled and confirm that no overhead irrigation shall be used between the hours of 10:00 a.m. and 8:00 p.m.

(4) The parameters used for setting the irrigation system controller for watering times for:

(a) Plant establishment period

(b) Established landscaping

(c) Temporarily irrigated areas

(d) Different seasons during the year

(5) The consideration used for each station for:

(a) Days between irrigation

irrigation event, designed to avoid runoff

(b) Station run-time in minutes for each

irrigation event, designed to avoid runoff

(c) Number of cycle starts required for each

basis

(d) Amount of water to be applied on a monthly

(e) Root depth setting

(f) Plant type setting

(g) Soil type

(h) Slope factor

(i) Shade factor

(j) Other relevant information from the Soil

Management Report

iv. A copy of the ETWU worksheet described later in this section.

v. The plan shall demonstrate compliance with stormwater best management practices (BMPs) identified in Chapter 13.18 of the Vista Municipal Code.

vi. The irrigation system shall be designed to meet the guidelines contained in the Manual.

vii. In close proximity on the sheet, the MAWA and the ETWU for each Point of Connection shall be identified, thereby demonstrating that the ETWU does not exceed the MAWA. (ETWU shall be equal to or less than MAWA.)

4. Soil Management Report

a. The Soil Management Report shall be prepared by a licensed landscape architect, civil engineer, architect, or other landscape professional licensed by the State of California to do this work. It shall be based on site conditions after grading operations have been completed and may be submitted as one of the sheets in the planting plan or as a separate document. It shall contain the following information:

i. An analysis of the soil for the proposed landscape area of the project covering information about soil texture, soil infiltration rate, pH, total soluble salts, plant sodium, percent organic matter and horticultural suitability.

ii. Recommendations for soil amendments and mulch that may be necessary to allow healthy plant survival and growth in the landscape area using efficient irrigation techniques. Recommendations shall include the following information:

(1) The type and amount of mulch needed for each area where it is used. At a minimum, a three-inch layer of mulch shall be applied to all exposed surfaces except in turf areas, herbaceous ground covers, or direct seeding applications where mulch is contraindicated. Highly flammable mulch is prohibited.

iii. For any project which involves mass grading, a revised soil management report shall be provided as part of the final inspection submittal of the Package if site conditions require said revision.

5. Grading Plan

a. Grading plans shall include site grading information including, but not limited to, elevations, slope heights, drainage patterns, pad elevations, storm water management, and finish grade.

b. Grading shall conform with Vista Development Code Chapter 17.56 (Erosion Control and Grading).

c. The grading plan shall include the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan" and shall bear the signature of a licensed professional as authorized by law.

d. A conceptual grading plan shall be provided with the conceptual landscape submittal.

e. A precise grading plan shall be provided with the landscape construction submittal.

f. As-built grading plans shall be provided during the final inspection submittal if deemed necessary by the City Planner.

6. Water Conservation Plan

a. The following elements are to be included in the Water Conservation Plan:

i. The plan will graphically depict, in a general way, how the proposed project will conform to the requirements of this chapter and the Manual.

ii. The plan will demonstrate how the proposed development will use all practical means to conserve water used in landscape irrigation.

iii. The plan shall indicate graphically, and in writing, the various hydrozones on the site (including the square footage of each hydrozone), indicating multiple methods of irrigation and plant material with similar sun, water, topography and soil conditions.

iv. Provide justification for appropriateness of plant material selection; for example: are high water consuming plants in shade areas where they will use less water and/or will the soil be suitably amended to retain relatively greater moisture.

v. Give percentages of various types of hydrozone areas and specifically the percentage of turf based on the total landscaped area.

vi. Describe accommodations for reclaimed water (existing or future) and identify proposed areas to use reclaimed water.

vii. Written description of water conservation features including, but not limited to, special irrigation equipment, i.e., drip irrigation, moisture sensing devices, etc., plant material, soil amendment, management, proper placement, design, etc.

ix. Agreement that landscaping shall be serviced by a separate meter if approved by VID.

7. Estimated Total Water Use (ETWU) Worksheet

a. An ETWU Worksheet has been included as an appendix in the Manual. The use of this worksheet is mandatory and worksheets prepared by an applicant's landscape architect do not relieve the applicant from completing and providing this worksheet. The worksheet shall be provided on a separate 8 ½" x 11" page and shall also be copied onto the plan set(s). It includes the following information:

i. A hydrozone information table that contains a list of each hydrozone in the landscaped area of the project and complies with the following requirements:

(1) For each hydrozone listed, the table shall identify the plant types and water features in the hydrozone, the irrigation methods used, the square footage and the percentage of the total landscaped area of the project that the hydrozone represents.

(2) The plant types shall be categorized as turf, high water use, moderate water use, low water use, or very low water use.

ii. Water budget calculations, which shall meet the following requirements:

(1) The plant factor used shall be from WUCOLS III. The plant factor shall be 0.1 for very low water use plants, 0.3 for low water use plants, 0.5 for moderate water use plants, and 0.8 for high water use plants and turf. A plan that mixes plants in a hydrozone that require a different amount of water shall use the plant factor for the highest water using plant in the hydrozone.

(2) Temporarily irrigated areas shall be included in the low water use hydrozone. Temporarily irrigated as used in this chapter means the period of time when plantings only receive water until they become established.

(3) The surface area of a water feature, including swimming pools, shall be included in a high water use hydrozone.

(4) The ETWU shall not exceed the MAWA. Formulas used to calculate these values can be found in Section 18.56.090.

(5) Each special landscaped area shall be identified on the worksheet.

b. Upon approval of the Package, the City will provide a copy of the ETWU worksheet to the local water purveyor.

8. Record Drawings or As-Built Plans

a. Any changes made in the field during the project construction, and shown on the Record Drawings, shall have received approval by the City Planner prior to their installation. Changes not authorized by the City Planner must be remedied prior to final approval of the project if those changes fail to meet the intent of this ordinance.

b. These drawings shall incorporate any revisions made to the following items:

- i. Title Sheet
- ii. Planting Plan
- iii. Irrigation Plan
- iv. Grading Plan
- v. Water Conservation Plan
- vi. ETWU worksheet

9. Landscape and Irrigation Maintenance Schedule

a. The schedule shall provide for the following:  
i. Routine inspection to guard against runoff and erosion and to detect plant or irrigation system failure.

ii. Replacement of dead, dying, and diseased vegetation.  
iii. Eradication of invasive species.  
iv. Repairing the irrigation system and its components.  
v. Replenishing mulch.  
vi. Addition of soil amendments when necessary to support and maintain healthy plant growth.

vii. Fertilizing, pruning and weeding and maintaining turf areas.

viii. Maintenance to avoid obstruction of motorists' view.  
ix. Identification of the entity who will be responsible for maintenance.

10. Certificate of Completion of Landscape Installation

a. The landscape architect of record shall provide a certificate to the City Planner, stating that landscaping installed as part of the project substantially conforms with the approved Landscape Construction drawings or Record Drawings.

b. It shall include an updated irrigation schedule, irrigation and maintenance schedule, and soil management report identifying any changes made to the those approved as part of the construction drawing submittal.

c. It shall signify that the landscape architect has obtained an irrigation audit report, prepared by a certified landscape irrigation auditor, and is satisfied that the irrigation system has been functionally tested for the following: distribution uniformity, over spray and runoff control, and that water use does not exceed the MAWA once landscaping has been established. A copy of the irrigation audit shall accompany the certificate.

d. The certificate of completion shall constitute a request from the landscape architect for a final inspection of project landscaping by the City Planner or his or her designee.

H. The City Planner reserves the right to modify the information required as part of the Package as deemed necessary. In no case shall any modification be permitted that would cause a project to fail to meet the water conservation requirements contained in this chapter. (Prior Code Appendix A 2005; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.090 Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU)**

A. The MAWA shall be calculated using the following formula:

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

In which the following abbreviations apply:

MAWA = Maximum Applied Water Allowance in gallons/year

ETo = Evapotranspiration in inches per year.

0.62 = Conversion factor to gallons per square foot.

0.7 = ET adjustment for plant factors and irrigation efficiency (ETAF).

LA = Landscape Area including SLA.

SLA = Portion of the landscape area identified as Special Landscape areas (measured in square feet)

0.3 = The additional ET adjustment factor for special landscape areas (1.0 – 0.7 = 0.3).

B. The ETWU shall be calculated using the following formula:

$$\text{ETWU} = (\text{ETo})(0.62) ((\text{PF} \times \text{HA} / \text{IE}) + \text{SLA})$$

In which the following abbreviations apply:

ETWU = Estimated Total Water Use in gallons per year.

ETo = Evapotranspiration in inches per year.

0.62 = Conversion factor to gallons per square foot.

PF = Plant factor from WUCOLS.

HA = Hydrozone Area in square feet. Each HA shall be classified according to its water use; high, medium, low, or very low according to the legends on the planting plans.

IE = Irrigation Efficiency (Minimum average 0.71).

SLA = Special Landscape area in square feet.

C. Effective precipitation (usable rainfall) varies widely from year to year and therefore is not to be included in the above calculation, and shall not be factored into the ETWU.

D. Estimated monthly water use shall be identified in a table in close proximity to the ETWU calculation.

E. Portions of landscaped areas in public and private projects such as parks, playgrounds, sports fields, golf courses, or school yards where turf provides a playing surface or serves other recreational purposes are considered recreational areas and may require water in addition to the Maximum Applied Water Allowance. A statement shall be included with the landscape design plan, designating recreational areas to be used for such purposes and specifying any needed amount of additional water above the Maximum Applied Water Allowance.

(Prior Code Appendix A 2004; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.100 Limitations on the Use of Water Features**

Information regarding the use of water features can be found in the Manual.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.110 Turf Regulations**

A. The following regulations shall apply to all projects that are required to submit a Package:

1. Turf shall not be used on slopes greater than 4:1 (25 percent).

2. Only low volume irrigation shall be used for turf in a landscape area where any dimension of the landscape area is less than eight feet.

3. On commercial, industrial or multi-family landscape no turf shall be installed in a median, parking lot island or parkway unless, if determined by the City Planner, limited use of turf is necessary to provide safe access for pedestrians leaving a parked vehicle to reach the sidewalk.

4. On commercial, industrial or multi-family properties, no turf shall be installed on any portion of the site, with the exception of bio-swales required as storm water best management practices (see Chapter 13.18 of the Vista Municipal Code), that is inaccessible or unusable to a person who uses the site.

5. An athletic field, park, golf course, cemetery, or other similar use shall be designed to limit the use of turf to only those areas where it is deemed essential by the City Planner for the operation of the facility. Areas where turf is not essential to the operation of the facility shall be landscaped with plants with lower water use requirements than turf.

6. No turf shall be allowed in a landscape area that cannot be efficiently irrigated (for example where overspray and runoff cannot be avoided).

(Prior Code Appendix A 2005; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.120 Public Education and Model Homes**

A. Single-family residential developments that contain a model home or homes shall provide an Outdoor WaterSmart Package to all persons visiting the home(s). In lieu of providing a hard copy of the brochure, the visitors may be sent an electronic version of it. At a minimum, the brochure shall include:

- landscaping
1. Information describing the water efficient features of the model(s)'s landscaping
  2. Resources for additional information regarding water efficiency in landscaping
  3. Contact information for the local water purveyor
  4. Contact information for the City of Vista's Planning Division
  5. A reference to the requirements of this chapter and the website where the code can be found electronically.

B. An educational sign shall be placed in the front yard of each model home, visible and readable from the adjacent roadway. It shall be a white sign with black capital lettering at least two inches in height, and shall read as follows:

“THIS MODEL HOME USES WATER EFFICIENT LANDSCAPING AND IRRIGATION”

(Prior Code Appendix A 2005; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.130 Recycled/Reclaimed Water**

A. The use of recycled/reclaimed water for irrigation purposes does not excuse a person from complying with all state and local laws and regulations related to recycled/reclaimed water use.

B. Any person who obtains a permit required pursuant to this chapter shall use recycled/reclaimed water for irrigation purposes when it is available from the local water purveyor.

C. Any person who uses recycled/reclaimed water shall install a dual distribution system for water received from a public water purveyor.

D. Pipes which carry recycled/reclaimed water shall be purple.

E. To the extent practicable, stormwater shall be captured and retained on-site and used for irrigation purposes.

(Prior Code Appendix A 2005; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.140 Wastewater Prevention**

No new irrigation system (since the approval of this ordinance) shall allow irrigation water to flow onto adjacent property, non-irrigated areas, structure, walkways, roadways or other paved areas whether the cause is runoff, low head drainage or other similar condition.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.150 City's Right to Inspect**

The City has the right, but not the obligation, to inspect any landscape installation for which it has an approved package.

(Prior Code Appendix A 2000; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.160 Field Observations**

A. Any revisions of the landscape plan must be approved by the landscape architect of work and the City Planner before any plant materials are installed inconsistent with the original plan.

B. After installation, but prior to backfill, an observation of the irrigation system shall be made by the landscape architect of work and the City Planner of all points of connection, backflow protection devices, mainlines, electrical connections, automatic controllers, and control valves.

C. Prior to the acceptance of all landscape projects, an observation of the completed landscape installation shall be requested by the landscape architect of work. The submission by the landscape architect of work of a certificate of completion of landscape installation shall serve as a formal request for final observation.

D. Final observation will be conducted by the City Planner or his or her designee. The inspection shall include, but not be limited to:

1. An irrigation coverage test
2. Conformance with approved landscape plans
3. Condition of plant materials (including street trees and slope plantings)
4. A review of any special conditions or approval attached to the project by

the City Council and/or Planning Commission.

(Prior Code Appendix A 2008; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.170 Approval of Landscape Installation**

A. Approval of landscape installation after construction is completed is based on the condition of the project at the time of final observation.

B. Upon submittal by the Landscape Architect of Work of a certificate of completion of landscape installation, the City Planner or his or her designee shall conduct a field observation in accordance with Section 18.56.160.

C. Tentative approval of landscape installation shall be granted when the City Planner is satisfied that the landscaping and irrigation system has been installed correctly and per plan.

1. Should the condition of the landscaping and/or irrigation system not be satisfactory or should unapproved revisions to the landscaping be found, the City Planner may withhold tentative approval.

2. Written acknowledgement of tentative approval shall be provided by the City Planner.

D. Final approval of landscape installation shall require an additional field observation of the landscaping and irrigation system no sooner than one year from the date of tentative approval.

1. Observation shall be requested in writing by the landscape architect of work. A copy of the City Planner's written acknowledgement of tentative approval shall accompany the landscape architect of work's request.

2. Final approval shall be granted if the condition of the landscaping is found to be satisfactory by the City Planner.

3. Should the condition of the landscaping and/or irrigation system not be found satisfactory by the City Planner, he or she may withhold final approval.  
(Prior Code Appendix A 2004; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

**Section 18.56.180 Performance and Payment Guarantee**

A. No building or grading permit for a covered project shall be issued unless the applicant has posted a bond or other guarantee with the City of Vista, approved by the Director, pledging the performance of landscape installation and maintenance. The bond or other guarantee shall state that such funds are trust funds for the purpose of satisfying the cost of correcting any deficiency of the work and, if required by Section 3247 of the California Civil Code, a payment bond sufficient to satisfy that requirement.

1. The total bond or other guarantee shall be in a form approved by the City Attorney.

2. The total amount of the bond or other guarantee shall be equal to 150 percent of the estimated cost of all landscaping work shown on the plans, including but not limited to plants, installation, irrigation equipment, maintenance throughout the one-year maintenance period, etc.

3. The estimated cost of the landscaping shall be as determined by the City Planner after reviewing estimates submitted by a licensed landscape architect, licensed civil engineer, licensed architect, or other landscape professional licensed by the state to prepare this estimate.

B. Every bond or other guarantee shall include a landscaping and irrigation agreement which shall require that the applicant:

1. Comply with all provisions of this code, and applicable local, state, and federal laws and ordinances.

2. Comply with all terms and conditions of the building and/or grading permit(s), whichever may be applicable, to the satisfaction of the Building Official or City Engineer respectively.

3. Complete all landscaping work indicated on the site development plan, building plan, or grading plan, whichever may be applicable.

C. The landscaping and irrigation agreement identified above shall be in a form approved by the City Attorney and may be approved and executed by the Director on behalf of the City.

D. In the event that the applicant fails to complete project landscaping, including the establishment of the plantings throughout the maintenance period, the City Planner may order such work to be completed to his or her satisfaction.

1. The person(s) responsible for the bond or other guarantee shall continue to be firmly bound under a continuing obligation for the payment of all necessary costs and expenses incurred by the City in order to complete any and all such work to be done.

2. In the case of certificate of deposit or a cash deposit, any unused portion thereof shall be refunded to the applicant.

E. Each bond or other guarantee shall remain in effect until final approval of landscaping is granted by the City Planner, and in accordance with the requirements of applicable laws.

1. The City Planner may, at his or her discretion, allow a landscape maintenance bond or other guarantee to be posted in-lieu of the original bond or guarantee once landscaping has been tentatively accepted.

a. The amount of this bond shall be determined by the City Planner based on anticipated maintenance costs throughout the one-year maintenance period.

b. The original bond or other guarantee shall not be released until the maintenance bond or other guarantee has been posted.

c. The maintenance bond or other guarantee shall not be released until final approval of landscaping by the City.

F. If suit is brought upon the bond or other guarantee by the City and judgment is recovered, the person(s) responsible for the bond or other guarantee shall pay all cost incurred by the City in such suit, including a reasonable attorney's fee to be fixed by the court.

(Prior Code Appendix A 2009/2010, 0; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2000-2, Amended 6/13/2000; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)

### **Section 18.56.190 Fees**

The fee for all landscape plans submitted pursuant to this chapter shall be established by resolution of the City Council and may be amended from time to time to ensure recovery of the necessary cost for processing such plans and conducting inspections of the installed landscaping.

(Prior Code Appendix A 2011; Ord. No. 97-8, Amended, 04/08/1997; Ord. No. 2011-2, Repealed and Replaced, 2/22/2011)