Chapter 15.64
WATER-EFFICIENT LANDSCAPING

Sections:

15.64.010 Findings and purpose.

A. The City of San Carlos finds and declares that:

1. The limited supply of state waters are subject to ever-increasing demands;

2. Landscape, design, installation and maintenance can and should be water efficient; and

3. Government Code Sections 65591, 65591.5 and 65597 mandate the adoption of water-efficient landscape ordinance either locally or through the State Model Ordinance.

B. The establishment of water-efficient landscape guidelines is necessary to:

1. Promote the conversation and efficient use of water;

2. Promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;

3. Establish a structure for designing, installing and maintaining water-efficient landscapes;

4. Establish provisions for water management practices and water waste prevention for landscapes;

5. Promote the use and maintenance of California native plants;

6. Discourage the use of water-intensive plants; and

7. Encourage the preparation of educational materials by community organizations for distribution at permit inquiry and application stages of development regardless of applicability. (Ord. 1122 § 1 (part), 1993: Ord. 1115 § 1 (part), 1992)

15.64.020 Definitions.

For the purposes of this chapter, the following definitions shall apply:

"Anti-drain valve" or "check valve" means a valve located under a sprinkler head or within a lateral line to hold water in the system so it minimizes drainage from the lower elevation sprinkler heads.

"Emitter" means drip irrigation fittings that deliver water slowly from the system to the soil.

"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. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a nonirrigated hydrozone.

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

"Landscaped area" means the entire parcel less the building footprint, driveways, nonirrigated portions of parking lots and hardscapes, such as decks and patios, and other nonporous areas. Water features are included in the calculation of the landscaped area. Areas dedicated to edible plants, such as orchards or vegetable gardens, are not included.

"Overspray" means the water which is delivered beyond the landscaped area, wetting pavements, walks, structures or other nonlandscaped areas.

"Rain sensing override devices" means a system which automatically shuts off the irrigation system when it rains.

"Soil moisture sensing device" means a device that measures the amount of water in the soil.

"Sprinkler head" means a device which sprays water through a nozzle.

"Turf" refers to the surface layer of earth containing mowed grass with its roots. Annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, seashore paspalum, St. Augustinegrass, Zoysiagrass, and buffalo grass are warm-season grasses.

"Valve" means a device used to control the flow of water in the irrigation system. (Ord. 1122 § 1 (part), 1993: Ord. 1115 § 1 (part), 1992)

15.64.030 Applicability and review process.

A. This chapter establishes guidelines for all landscape plans submitted as required in Section 18.116.135 of this Code or as otherwise specified in the planning approval for a project.

B. The Planning Department shall provide a "landscape and irrigation design checklist" of information required for review of a landscape plan as noted in Section 15.64.030(A) of this chapter.

C. Any appeal of a landscape and irrigation plan determination shall be made in accordance with Chapter 18.132 of this Code. (Ord. 1122 § 1 (part), 1993: Ord. 1115 § 1 (part), 1992)

15.64.040 Landscape design guidelines.

The following guidelines, if reflected in the landscape plan required in Section 18.116.135 of this Code, may serve as a basis upon which to grant approval of a landscape plan's water efficiency:

A. Where feasible, plants should be drought resistant. Native plants are preferred. A list of recommended drought resistant and native plants is available at the City's Planning Department.

B. Plants having similar water use should be grouped together in distinct hydrozones.

C. Plants should be selected appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the site. Protection and preservation of native species and natural areas is encouraged. Removal of native species and natural areas is discouraged, unless necessary. The planting of trees is encouraged wherever it is consistent with the other provisions of this Code.

D. Turf may be used where it provides a playing surface or serves other recreational purposes such as at parks, playgrounds, sports fields or schoolyards. Low groundcovers or other organic materials should be used instead of turf where practical.

E. The combined size of turf areas should not be more than twenty-five percent of the total developed landscape area. Turf areas should not be used in strip plantings less than ten feet in width or on slopes exceeding twenty-five percent.

F. Fire prevention needs should be addressed in areas that exhibit a high fire danger or risk. For projects located at the interface between urban areas and natural open space, water-conserving plants should be selected that will blend in with the native vegetation and are fire resistant or fire retardant. Plants with low fuel volume or high moisture content are encouraged. Plants that tend to accumulate an excessive amount of deadwood or debris should be avoided. Further information about fire-prone areas and appropriate landscaping for fire safety is available from the South County Fire Authority or the California Department of Forestry.

G. Recirculating water should be used in decorative water features.

H. Pool and spa covers are encouraged to reduce water loss through evaporation.

I. Plants selected for slope areas should be water-conserving plants suitable for erosion control.

J. Commercial and industrial areas should utilize vegetation which will minimize heat gain and allow winter solar access to the walls of a structure. Where feasible, deciduous trees, tall shrubs or vines should be provided on the east and west exposures of structures in a ratio of one tree, or equivalent, per each twenty-five feet of horizontal exposure. Plantings which shade any solar energy system are discouraged.

K. Where feasible, parking lots should provide a minimum ten-gallon tree for every four parking spaces. Sufficient unpaved area should remain around each tree to allow for water infiltration, gas exchange and to avoid conflicts between trees and cars or irrigation devices. Curbing should not be utilized where it would impede the flow of surface water to any groundwater recharge area. (Ord. 1122 § 1 (part), 1993: Ord. 1115 § 1 (part), 1992)

15.64.050 Irrigation guidelines.

A. Design.

1. Soil types and infiltration rate should be considered when designing irrigation systems. All irrigation systems should be designed to avoid runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways or structures. Proper irrigation equipment and schedules, including features such as repeat cycles, should be used to closely match application rates to infiltration rates therefore minimizing runoff.

2. Special attention should be given to avoid runoff on slopes and to avoid overspray in planting areas with a width less than ten feet, and in median strips.

3. No overhead sprinkler irrigation systems should be installed in median strips less than ten feet wide.

4. Exposed soil surfaces of nonturf areas within the developed landscape area should be mulched with a minimum two inch deep layer of organic material. Nonporous material should not be placed under the mulch.

5. Drip-irrigation systems should be used where appropriate and feasible.

B. Equipment.

1. Separate landscape water meters are encouraged for all projects except for single-family homes or any project with a landscaped area of less than five thousand square feet.

2. Automatic control systems should be incorporated into all irrigation systems.

3. Plants which require different amounts of water should be irrigated by separate valves. If one valve is used for a given area, only plants with similar water use should be used in that area. Anti-drain (check) valves should be installed in strategic points to minimize or prevent low-head drainage.

4. Heads and emitters should have consistent application rates within each control valve circuit. Sprinkler heads should be selected for proper area coverage, application rate, operating pressure, adjustment capability, and ease of maintenance.

5. The use of rain sensing override devices are encouraged for all irrigation systems.

6. It is recommended that soil moisture sensing devices be considered where appropriate.

7. Irrigation systems should be designed to be consistent with hydrozones.

8. The installation of recycled water irrigation systems (dual distribution systems) shall be encouraged to allow for the current and future use of recycled water in accordance with applicable Health Code regulations and the Graywater Use Guidelines developed by the California Department of Water Resources Ad Hoc Gray-water Committee to be incorporated into the Uniform Plumbing Code.

C. Schedules.

1. Whenever possible, landscape irrigation shall be scheduled between two a.m. and ten a.m. to avoid irrigating during times of high wind or high temperature.

2. Landscape irrigation systems should be maintained on a continual basis to ensure water efficiency and prevent leakage.

3. Whenever possible, repair of irrigation equipment shall be done with the originally specified materials or their equivalents. (Ord. 1122 § 1 (part), 1993: Ord. 1115 § 1 (part), 1992)

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