

CHAPTER 12-26 WATER EFFICIENT LANDSCAPE AND IRRIGATION REQUIREMENTS

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12-26-101. Purpose.

The purpose of this section is to protect and enhance the City's environmental, economic, recreational, and aesthetic resources by promoting the efficient use of the City's limited water resources by reducing water waste and establishing rules for designing, installing and maintaining water efficient landscapes.

12-26-102. Definitions.

The following definitions shall apply to this Chapter:

- (a) Bubbler: An irrigation head that delivers water to the root zone by “flooding” the planted area, usually measured in gallons per minute. Bubblers exhibit a trickle, umbrella or short stream pattern.
- (b) Check Valve: A device used in sprinkler heads or pipe to prevent water from draining out of the pipe through gravity flow.
- (c) Controller: An electronic device used in irrigation systems to automatically control when and how long sprinklers or drip systems operate.
- (d) Drip Emitter: Drip irrigation fittings that deliver water slowly at the root zone of the plant, usually measured in gallons per hour.
- (e) Grading Plan: The Grading Plan shows all finish grades, spot elevations as necessary and existing and new contours with the developed landscaped area.
- (f) Ground Cover: Living low growing plant material installed in such a way that, at maturity, will form a continuous cover over the ground, and should not exceed twenty-four inches (24”) in height at maturity. Turf is not included within the definition of ground cover.
- (g) Hardscape: Patios, decks, paths and similar features included or identified within a Landscape Design Documentation Package. Generally, hardscape does not include plants, mulch, driveways or sidewalks.

(h) Irrigation Plan: The irrigation plan is a part of the landscape plan documentation package that shows all components of the irrigation system including water meter size, backflow prevention, precipitation rates, flow rate and operating pressure for each irrigation circuit, and identification of all irrigation equipment.

(i) Landscape Architect: A Landscape Architect (LA) who holds a professional license to practice landscape architecture in the State of Utah; see U.C.A. §§58-53-101, *et seq.*, as amended. All required landscape plans and documents must be prepared and stamped by a Landscape Architect.

(j) Landscape Designer: A person who may or may not hold professional certificates for landscape design/architecture and cannot legally create commercial landscape plans. With respect to developments covered by this Chapter, plans prepared by Landscape Designers shall not be accepted by the City.

(k) Landscape Plan Documentation Package: Graphic and written criteria, specifications, and details to arrange and modify the effects of natural features such as plantings, ground and water forms, circulation, walks and other features to comply with the provisions of this ordinance. The Landscape Plan Documentation Package shall include, at minimum, a project data sheet, a Planting Plan, an Irrigation Plan, and a Grading Plan.

(l) Landscape Zone: A portion of the landscaped area having plants with similar water needs, areas with similar microclimate (i.e., slope, exposure, wind, etc.) and soil conditions, and areas that will be similarly irrigated. A landscape zone can be served by one irrigation valve, or a set of valves with the same schedule.

(m) Landscaping: Any combination of landscape-related features including, without limitation: living plants, such as trees, shrubs, vines, ground covers, flowers, or grass; natural features such as rock, stone, or bark chips; hardscape; and structural features such as fountains, reflecting pools, outdoor artwork, screen walls, fences or benches.

(n) Mulch: Any material such as rock, bark, wood chips or other non-compacted materials and applied to cover the soil.

(o) Park Strip: A landscaped area located between the back-of-curb and a sidewalk.

(p) Planting Plan: A Planting Plan is a component of the landscape plan documentation package that clearly and accurately identifies and locates all material elements of the plan, including at minimum, new and existing trees, shrubs, ground covers, turf areas, driveways, sidewalks, hardscape features, and fences.

(q) Pop-up Spray Head: A sprinkler head that when not under pressure is ordinarily fixed at ground level, but when under pressure rises to spray water through a nozzle in a fixed pattern with no rotation.

(r) Precipitation Rate: The depth or measurement of water applied to a given area, usually measured in inches per hour.

(s) Pressure Regulating Valve: A valve installed in an irrigation mainline that reduces a higher supply pressure at the inlet down to a regulated lower pressure at the outlet.

(t) Pressure Compensating: A feature of an irrigation system that compensates for fluctuating water pressure by only allowing a fixed volume of water through drip or other emitters.

(u) Rotor Spray Head: A sprinkler head that distributes water through a nozzle by the rotation of a gear or mechanical rotor.

(v) Runoff: Irrigation water that is not absorbed by the soil or landscape area to which it is applied, and which flows onto other areas.

(w) Spray Sprinkler: An irrigation head that sprays water through a nozzle.

(x) Stream Sprinkler: An irrigation head that projects water through a gear rotor in single or multiple streams.

(y) Turf/turfgrass: the upper layer of ground that is made up of perennial grass, such as, for example, turf-type tall fescue, Kentucky bluegrass or perennial ryegrass.

(z) Water-Conserving Plant: A plant that can generally survive with available rainfall once established although supplemental irrigation may be needed or desirable during spring and summer months.

12-26-103. Zones and Uses – Applicability of Water Efficient Landscape Ordinance.

The provisions of this chapter shall apply to all new landscapes in the following uses and zones: commercial, light industrial, heavy industrial, airport, business park, mixed use, planned dwelling group, multi-family residential developments, public and quasi-public uses, buildings and developments and similar uses. Developments consisting exclusively of single family or two-family dwellings are excluded and subject to the provisions of Section 12-28-109 - Yard, Landscaping, Maintenance and Storage, as amended. Developers of single-family homes and two-family homes are encouraged to comply with the provisions of this chapter.

12-26-104. Landscape Design Standards.

(a) Plant Selection. Plants shall be well-suited to the climatic, microclimate and soil conditions at the project site. Both native and locally-adapted plants are acceptable. Plants with similar water needs shall be grouped together as much as possible.

(1) Areas with slopes greater than 30% shall be landscaped with deep-rooting, water-conserving plants for erosion control and soil stabilization.

(2) Park strips and other landscaped areas less than eight (8) feet wide shall be landscaped with water-conserving plants and mulch. Turf is prohibited.

(3) Mulch. After completion of all planting, all irrigated non-turf areas shall be covered with a minimum four (4) inch layer of mulch to retain water, inhibit weed growth, and moderate soil temperature. Non-porous material shall not be placed under the mulch.

(4) Soil Preparation. Soil preparation will be suitable to provide healthy growing conditions for the plants and to encourage water infiltration and penetration. Soil

preparation shall include scarifying the soil to a minimum depth of six (6) inches and amending the soil with organic material as per specific recommendations of the Landscape Architect based on the soil conditions.

(5) Tree Selection. Tree species shall be selected based on growth characteristics and site conditions, including available space, overhead clearance, soil conditions, exposure, and desired color and appearance. Trees shall be selected as follows:

(A) Broad canopy trees shall be selected where shade or screening of tall objects is desired;

(B) Low-growing trees shall be selected for spaces under utility wires;

(C) Generally, trees shall be selected from which lower branches can be trimmed in order to maintain a healthy growth habit where vision clearance and natural surveillance is a concern;

(D) Narrow or columnar trees shall be selected where awnings or other building features limit growth, or where greater visibility is desired between buildings and the street for natural surveillance; and

(E) Where required, street trees shall be planted within existing and proposed park strips, and in sidewalk tree wells on streets without park strips. Tree placement shall provide canopy cover (shade) and avoid conflicts with existing trees, retaining walls, utilities, lighting, and other obstacles.

12-26-105. Irrigation Design Standards.

(a) Pressure Regulation. A pressure regulating valve shall be installed and maintained by the developer and owner if the static service pressure exceeds 80 pounds per square inch (psi). The pressure-regulating valve shall be located between the meter and the first point of water use, or first point of division in the pipe, and shall be set at the manufacturer's recommended pressure for the sprinklers.

(b) Irrigation Controller. Landscaped areas shall utilize a "WaterSense" labeled or equivalent "smart" irrigation controller which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions. All controllers shall be equipped with automatic rain delay or rain shut-off capabilities.

(c) Each valve shall irrigate a Landscape Zone with similar site, slope and soil conditions and plant materials with similar watering needs. Turf and non-turf areas shall be irrigated on separate valves. Drip emitters and sprinklers shall be placed on separate valves.

(d) Drip emitters or a bubbler shall be provided for each tree. Bubblers shall not exceed 1.5 gallons per minute per device. Bubblers for trees shall be placed on a separate valve unless specifically exempted in writing by the City due to the limited number of trees on the project site.

(e) Drip irrigation or bubblers shall be used to irrigate plants in non-turf areas.

- (f) Pop-up spray heads shall elevate (“pop-up”) a minimum of four (4) inches in height to clear turf or other plant materials.
- (g) Sprinklers shall have matched precipitation rates with each control valve circuit.
- (h) Sprinkler heads shall be attached to rigid lateral lines with flexible material (swing joints) to reduce potential for breakage.
- (i) Check valves shall be required where elevation differences cause low-head drainage. Pressure compensating valves and sprinklers shall be required where a significant variation in water pressure occurs within the irrigation system due to elevation differences.
- (j) Filters and end flush valves shall be provided as necessary for drip irrigation lines.
- (k) Valves with spray or stream sprinklers shall be scheduled to operate at the following times to reduce water loss from wind and evaporation: commencing no sooner than 2 hours before sunset, and ending no later than 2 hours after sunrise.
- (l) Valves should be programmed for multiple repeat cycles where necessary to reduce runoff, particularly on slopes and soils with slow infiltration rates.

12-26-106. Option to Install Water-wise Landscape Improvements in New Single-family and Two-family Residential Developments.

- (a) Homebuilders and/or developers subdividing lots and/or constructing new single-family residential homes should offer a water-efficient landscaping option to prospective home buyers. The water-efficient landscaping option shall meet the Landscape Design Standards and Irrigation Design Standards of this chapter, under which the turf area shall not exceed 10% of the total landscaped area or 1,000 square feet, whichever is less.
- (b) Homebuilders and/or developers who construct multiple model homes for a designated subdivision should have at least one model home with water-efficient landscaping. The water-efficient landscaping option should meet the Landscape Design Standards and Irrigation Design Standards of this chapter, and the turf area shall not exceed 10% of the total landscaped area or 1,000 square feet, whichever is less.
- (c) Homebuilders and/or developers should provide potential purchasers an informational brochure on water-efficient landscaping.

12-26-107. Prohibition on Restrictive Covenants Requiring Turf – Limitation on Use of Turf.

- (a) The governing documents for owners’ use or operation of property within a development (owners’ association bylaws, operating rules, covenants conditions and restrictions, etc.) shall be void and unenforceable if said documents:
 - (1) Require the use of turf in landscape areas less than 8 feet wide or require turf in other areas that exceed 10% of the landscaped area; or

(2) Prohibit, or include conditions that have the effect of prohibiting, the use of water-conserving plants as a group; or

(3) Have the effect of prohibiting or restricting compliance with this chapter or other water conservation measures.

(b) Landscapes in Commercial, Light Industrial, Business Park, Mixed Use and Multi-family Residential Projects shall meet the standards of this section, and the turf area shall not exceed 50% of the total landscaped area exclusive of active recreation areas such as playfields and sport fields.

12-26-108. Landscape Plan Documentation Requirements.

(a) A copy of a Landscape Plan Documentation Package shall be submitted to and be approved by the City as part of the site plan and development approval process. The Landscape Plan Documentation shall be prepared by a Landscape Architect and shall consist of the following items:

(1) Project Data Sheet. The Project Data Sheet shall be drawn a scale that clearly identifies the following:

(A) Project name and address;

(B) Applicant or applicant agent's name, address, phone number, and email address; and

(C) Landscape architect's name, address, phone number, and email address.

(2) Planting Plan. A detailed planting plan shall be drawn at a scale that clearly identifies the following:

(A) Location of all plant materials, a legend with botanical and common names, and size of plant materials;

(B) Property lines and street names;

(C) Existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements;

(D) Existing trees and plant materials to be removed or retained;

(E) Scale: graphic and written;

(F) Date of submittal; and

(G) Details and specifications for tree staking, soil preparation, and other planting work.

(3) Irrigation Plan. A detailed irrigation plan shall be drawn at the same scale as the planting plan and shall contain the following information:

(A) Layout of the irrigation system including a legend and specifications summarizing the type and size of all components of the system, including controls and irrigation zones. The legend and specifications shall include manufacturer name and model numbers;

(B) Static water pressure in pounds per square inch (psi) at the point of connection to the public water supply;

(C) Flow rate in gallons per minute and design operating pressure in psi for each valve and precipitation rate in inches per hour for each valve with sprinklers; and

(D) Installation details for irrigation components.

(E) Scale: graphic and written; and

(F) Date of submittal.

(4) Written Specifications. Written specifications detailing installation materials and standards of implementation of the foregoing plans shall be provided according to typical standards (AIA, APWA, etc.).

12-26-109. Plan Review, Construction and Site Inspection Requirements.

(a) As part of the development approval process, a copy of the Landscape Plan Documentation shall be submitted to the City for review. Generally, the Landscape Plan shall be approved as part of the subdivision or site plan approval process. In any event, an approved Landscape Plan shall be required before a building permit is issued.

(b) All designers, contractors and installers shall meet state and local license, insurance, and bonding requirements, and upon request shall submit written proof of the same.

(c) Following construction and prior to issuing the approval for occupancy, an inspection shall be scheduled to verify compliance with the approved landscape plans.

(d) The City shall be entitled to enter any property to perform site inspections at any time before, during or after the irrigation system and landscape installation, and is empowered to require corrective measures if requirements of the plans or this Chapter are not satisfied