

ORDINANCE NO. 17-10

AN ORDINANCE OF SOUTH OGDEN CITY, UTAH, REVISING AND AMENDING THE CITY CODE TITLE 10 CHAPTER 23 ADDING WATER EFFICIENT LANDSCAPE PROVISIONS INCLUDING ARTIFICIAL TURF; MAKING NECESSARY LANGUAGE CHANGES TO THE CITY CODE TO EFFECT THOSE CHANGES; AND ESTABLISHING AN EFFECTIVE DATE FOR THOSE CHANGES.

Section 1 - Recitals:

WHEREAS, SOUTH OGDEN City (“City”) is a municipal corporation duly organized and existing under the laws of Utah; and,

WHEREAS, the City Council finds that in conformance with Utah Code (“UC”) §10-3-717, and UC §10-3-701, the governing body of the city may exercise all administrative and legislative powers by resolution or ordinance; and,

WHEREAS, the City Council finds Whereas, there have been increasing requests to provide residents water efficient landscaping alternatives for the maintenance of their properties; and,

Whereas, the South Ogden City Council finds that such requests recognize that Utah is the second driest state in the union; and,

Whereas, the South Ogden City Council finds that these matters have been researched and deliberated by the Planning Commission and subjected to required public hearings and input; and,

WHEREAS, the City Council finds that certain changes should be made to existing city ordinances in order more effectively manage these landscaping issues; and,

WHEREAS, the City Council finds that South Ogden City Code, at Title 10, Chapter 23 and various sections should be amended by adding new language governing Water Efficient Landscape Provisions, including the use and regulation of artificial turf for the city; and,

WHEREAS, the City Council finds that the requirements should be effective upon passage of this Ordinance; and,

WHEREAS, the City Council finds that the public safety, health and welfare is at issue and requires action by the City as noted above;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF SOUTH OGDEN CITY, UTAH that the City Code be changed and amended as follows:

Amended Section:

Upon the adoption of this Ordinance, Title 10, Chapter 23 is readopted to read:

Chapter 23 **LANDSCAPE REGULATIONS**

1. Purpose

It is in the public interest conserve the public's water resources and to promote water efficient landscaping. The purpose of this ordinance is to protect and enhance the community's environmental, economic, recreational, and aesthetic resources by promoting efficient use of water in the community's landscapes, to reduce water waste, and to establish a structure for the designing, installing and maintaining of water efficient landscapes throughout the City.

2. Definitions

The following definitions shall apply to this ordinance:

Artificial Turf: A ground cover or surface consisting of synthetic fibers made to look like natural grass.

Backflow: An unwanted flow of water in the reverse direction.

Backflow Prevention Device (Backflow Preventer): Reduced pressure in the pipe may allow contaminated water from the soil, storage, or other sources to be drawn up into the system. A backflow prevention device (backflow preventer) is used to protect potable water supplies from contamination or pollution due to backflow.

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.

Drip Emitter: Drip irrigation fittings that deliver water slowly at the root zone of the plant, usually measured in gallons per hour.

Evapotranspiration: The quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time, expressed in inches per day, month or year.

Drought Tolerant Plant: A plant that can survive without irrigation throughout the year once established, although supplemental water may be desirable during drought periods for improved appearance and disease resistance.

Grading Plan: The Grading Plan shall be shown at the same scale as the Planting and Irrigation Plan. The Grading Plan shows all finish grades, spot elevations as necessary and existing and new contours with the developed landscaped area.

Ground Cover: Material planted in such a way as to form a continuous cover over the ground that can be maintained at a height not more than twelve (12) inches.

Hardscape: Patios, decks and paths (does not include driveways and sidewalks.)

Irrigated Landscaped Area: All portions of a development site to be improved with planting and irrigation. Natural open space areas shall not be included in the Irrigated Landscaped Area.

Irrigation Efficiency: The measurement of the water beneficially applied, divided by the total water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system hardware characteristics and management practices.

Irrigation Contractor: A person certified by the Irrigation Association (IA) to install irrigation systems.

Irrigation Designer: A person certified by the Irrigation Association to prepare irrigation system designs, and/or a Professionally Licensed Landscape Architect.

Irrigation Plan: The irrigation plan shall be shown at the same scale as the planting plan. The irrigation plan shall show the components of the irrigation system with water meter size, backflow prevention, precipitation rates, flow rate and operating pressure for each irrigation circuit, and identification of all irrigation equipment.

Landscape Irrigation Auditor (IA): A person certified by the Irrigation Association to conduct a landscape irrigation audit.

Landscape Plan Documentation Package: The preparation of a graphic and written criteria, specifications, and detailed plans to arrange and modify the effects of natural features such as plantings, ground and water forms, circulation, walks and other features to comply with this ordinance. The Landscape Plan Documentation Package shall include a project data sheet, a Planting Plan, an Irrigation Plan, a Grading Plan, a Soils Report, a Landscape Water Allowance, a Landscape Water Allowance Report, and an Irrigation Schedule.

Landscape Water Allowance: For design-purposes, the upper limit of annual applied water for the established landscaped area. It is based upon the local Reference Evapotranspiration Rate, the ETO adjustment factor and the size of the landscaped area.

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.

Mulch: Any material such as bark, wood chips or other materials left loose and applied to the soil for the purpose of preventing evapotranspiration.

Non-Drought Tolerant Plant: A plant that will require regular irrigation for adequate appearance, growth and disease resistance.

Planting Plan: A Planting Plan is a drawing that clearly and accurately identifies and locates elements related to a landscape such as new and existing trees, shrubs, ground covers, turf areas, driveways, sidewalks, hardscape features, and fences, etc.

Precipitation Rate: The depth of water applied to an area, usually measured in inches per hour. Professional Landscape Architect: A person who holds a license to practice landscape architecture in Utah.

Rain Shut-Off Device: A device wired to the automatic controller that shuts off the irrigation system when it rains.

Reference Evapotranspiration Rate or ETO: A standard measurement of environmental parameters which affect the water use of plants. ETO is expressed in inches per day, month or year and is an estimate of the evapotranspiration of a large field of four to seven-inch tall, cool season grass that is well watered. The average annual ETO for South Ogden City is 25.57* inches.

*ETO is based on the thirty year average from 1961 to 1990 for the Ogden Area, for the eight month growing season March through October. See *Sprinklers, Crop Water Use, and Irrigation Time - Weber County* by Robert W. Hill and James Barnhill, Utah State University Extension, April 2001, Table 3, Page 6.

Runoff: Water not absorbed by the soil or landscape area to which it is applied and which flows onto other areas.

Soils Report: A report by a laboratory indicating soil type(s), soil depth, uniformity, composition, bulk density, infiltration rates, and pH for the top soil and subsoil for a site. The soils report also includes recommendations for soil amendments.

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

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

Turf: A surface layer of earth containing grass with its roots.

Water-Conserving Plant: A plant that uses less water than standard plants.

Water Audit: An on-site survey and measurement of irrigation equipment and management efficiency, and the generation of recommendations to improve efficiency.

3. Applicability of Water Efficient Landscape Ordinance

This ordinance shall apply to all new and rehabilitated landscapes for public projects, private development projects, developer-installed landscaping in multi-family residential projects, and developer-installed landscaping in single-family projects.

This section does not apply to home-owner provided landscaping at single family projects, although water efficient landscapes are encouraged [for such sites as well](#).

In addition, sports fields, turf play areas within public parks, school grounds,

golf courses and cemeteries are exempt from the Landscape Water Allowance limitations of this ordinance. . All other portions of this ordinance shall apply.

4. Documentation

Landscape Plan Documentation Package.

A copy of a Landscape Plan Documentation Package shall be submitted to and approved by the City prior to issuance of any permit. The Landscape Plan Documentation Package shall be prepared by a Professional Landscape Architect.

The Irrigation Plan shall be prepared by an Irrigation Designer certified by the Irrigation Association and/or a Professional Landscape Architect.

The Landscape Plan Documentation Package shall consist of the following items:

A. Project Data Sheet. The Project Data Sheet shall contain:

1. Project name and address;
2. Applicant or applicant agent's name, address, phone and fax number;
3. Landscape Designer/Landscape Architect's name, address, phone and fax number; and
4. Landscape contractor's name, address, phone and fax number, if available.

B. Planting Plan. A detailed Planting Plan shall be drawn at an appropriate scale suitable for identifying:

1. Location of all plant materials;
2. A legend with botanical and common names and size of plant materials;
3. Property lines and street names;
4. Existing and proposed buildings, walls, fences, utilities, paved areas and other site features;
5. Existing trees and plant materials to be removed or retained;
6. Designation of Landscape Zones, and
7. Details and specifications for tree staking, soil preparation, Blue Stakes, and other planting work.

C. Irrigation Plan. A detailed Irrigation Plan shall be drawn at the same scale as the planting plan and shall contain:

1. Layout of the irrigation system;
2. A legend summarizing the type and size of all components of the system, including manufacturer name and model numbers;
3. Static water pressure in pounds per square inch (psi) at the point of connection to the public water supply;
4. 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
5. Installation details for irrigation components.

D. Grading Plan. A Grading Plan shall be drawn at the same scale as the Planting Plan and shall contain:

1. Property lines and street names, existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements, and;
2. Existing and finished contour lines and spot elevations for the proposed site improvements.

E. Soils Report. A Soils Report will be provided and shall describe the depth, composition, and bulk density of the top soil and subsoil at the site, and shall include recommendations for soil amendments. The Planting Plan shall incorporate the recommendations of the Soils Report into the planting specifications.

F. Landscape Water Allowance. The annual Landscape Water Allowance shall be calculated using the following equation:

Landscape Water Allowance = ETO x 1.0 x 0.62 x A, where Landscape Water Allowance is in gallons per year ETO = Reference Evapotranspiration in inches per year 1.0 = ETO adjustment factor, 100% of turf grass ETO (water year adjustment factor) 0.62 = conversion factor (to gallons per square feet) A = total Irrigated Landscape Area in square feet

G. Irrigation schedule. A monthly Irrigation Schedule shall be provided that covers the initial 120-day plant establishment period adjusted for seasonal variations. This schedule shall consist of a table with the following information for each valve:

1. Plant type (turf, trees, low water use plants);
2. Irrigation type (sprinklers, drip, bubblers);
3. Flow rate in gallons per minute;
4. Precipitation rate in inches per hour (sprinklers only);
5. Run times in minutes per day;
6. Number of water days per week; and
7. Cycle time to avoid runoff.

H. Irrigation schedule. A monthly Irrigation Schedule shall be provided that covers the initial 120-day plant establishment period adjusted for seasonal variations. This schedule shall consist of a table with the following information for each valve:

5. Landscape Design Standards

A. Plant Selection

Plants selected for landscape areas shall be well-suited to the microclimate and soil conditions at the project site.

Plants with similar water needs shall be grouped together as much as possible. For projects at the interface between urban areas and natural non-irrigated open space (), Drought Tolerant Plants shall be selected that will blend with the native vegetation and that are fire resistant or fire retardant. Plants with low fuel

volume or high moisture content shall be emphasized. Areas with slopes greater than 30% shall be landscaped with deep-rooting, water-conserving plants for erosion control and soil stabilization.

For Parking strips and other landscaped areas less than eight (8) feet wide, please refer to Title 7, Chapter 2 of this Code.

The *Salt Lake City Plant List and Hydrozone Schedule 2013* (http://www.slcdocs.com/utilities/PDF%20Files/2013_SLCPlantList_ver2-1.pdf) prepared by Salt Lake City Public Utilities shall be a primary reference document for the selection, design and installation of water-conserving plants and landscapes as modified from time to time by South Ogden City's certified arborist or the Planning Commission.

B. Mulch

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

C. 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 recommendations of the Landscape Designer/Landscape Architect based on the Soils Report.

6. Irrigation Design Standards

A. Irrigation design standards for this ordinance are outlined in the latest version of the "Minimum Standards for Efficient Landscape Irrigation System Design and Installation" prepared by the Utah Irrigation Association. In addition, the remainder of this section shall also apply.

B. Backflow Prevention Device: A backflow prevention device shall be installed according to State and County standards on all culinary irrigation systems. The backflow device must be tested on an annual basis and annual certification submitted to the City.

C. Pressure Regulation. A pressure regulating valve shall be installed and maintained by the consumer 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.

D. Landscape Water Meter. A water meter shall be installed for landscape irrigation systems, and shall be separate from the water meter installed for culinary uses. The size of the meter shall be determined based on irrigation demand.

E. Automatic Controller. All irrigation systems shall include an electric automatic controller with multiple program and multiple repeat cycle capabilities and a flexible calendar program. All controllers shall be equipped with an automatic

rain shut-off device, and the ability to adjust run times based on a percentage of maximum ETO.

- F. On slopes exceeding 33 percent, the irrigation system shall consist of Drip Emitters, Bubblers or sprinklers with a maximum Precipitation Rate of 0.85 inches per hour and adjusted sprinkler cycle times to eliminate Runoff.
- G. Each valve shall irrigate a landscape 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.
- H. 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 by the City due to the limited number of trees on the project site.
- I. Sprinklers shall have matched Precipitation Rates with each control valve circuit.
- J. Check valves shall be required where elevation differences will cause low-head drainage. Pressure compensating valves and sprinklers shall be required where a significant variation in water pressure will occur within the irrigation system due to elevation differences.
- K. Drip irrigation lines shall be undergrounded, except for Emitters and where approved as a temporary installation. Filters and end flush valves shall be provided as necessary.
- L. Valves with spray or stream sprinklers shall be scheduled to operate between 6 p.m. and 10 a.m. to reduce water loss from wind and evaporation.
- M. Valves shall be programmed for multiple repeat cycles where necessary to reduce runoff, particularly on slopes and soils with slow infiltration rates.

7. Use of Artificial Turf as a Ground Cover

A. Artificial turf shall consist of green, lifelike individual blades of grass that:

- 1. Emulate natural turf in look and color;
- 2. Have a minimum pile height of 1.5 inches, except in areas where shorter pile height may be installed as a sport or recreational surfaces; and
- 3. Have a minimum tufted weight of fifty-six (56) ounces per square yard.

B. In no case shall artificial turf be installed within permanent drainage features (e.g., ponds, swales, and retention and detention basins).

- ~~2. within any public right of way; and~~
- ~~3. to occupy in excess of 60% of the front and side yard areas;~~

C. Artificial turf may be installed in park strips located within the public right-of-way fronting properties.

1. In order to maintain an acceptable appearance, special maintenance and care of artificial turf park strips is assumed. Acceptance of this responsibility shall be borne by the property owner when installing artificial turf.
 2. South Ogden City will not be responsible for costs to maintain artificial turf in the street right-of-way.
 3. South Ogden City shall not be responsible for any costs to repair artificial turf damaged as part of utility and street repair and maintenance within the street right-of way.
- D. Artificial turf shall have a minimum eight (8) year manufacturer's warranty protecting against color fading and decrease in pile height;
 - E. The use of indoor or outdoor plastic or nylon carpeting as a substitute or replacement for artificial turf or natural turf is prohibited;
 - F. It shall be properly anchored to ensure that the artificial turf will withstand the effects of wind;
 - G. All seams shall be nailed and glued, not sewn, and edges shall be trimmed to fit against all regular and irregular edges to resemble a natural look;
 - H. Proper grading, compaction and drainage shall be provided for all artificial turf installations to prevent excess runoff or pooling of water and artificial turf installations shall have a minimum permeability of thirty inches (30") per hour per square yard;
 - I. It shall be visually level, with the grain pointing in a single direction;
 - J. An appropriate solid barrier device (e.g., concrete mow strip, bender board) is required to separate the artificial turf from planters and live vegetation;
 - K. A minimum four-foot (4') separation between artificial turf and tree trunks and two-foot (2') separation between artificial turf and shrubs shall be maintained to ensure roots are not damaged with the installation of artificial turf and that the overall health of the living plant material is not compromised;
 - L. It shall be cleaned regularly and maintained in an appropriate and neat manner; and
 - M. It shall be replaced if it is worn, uneven, discolored, or damaged.

78 Plan Review, Construction Inspection and Post-Construction Monitoring

- A. As part of the Building Permit approval process, a copy of the Landscape Plan Documentation Package shall be submitted to the City for review and approval before a permit shall be issued and construction begins. With the Landscape Plan Documentation Package, a copy of the Landscape Water Allowance Worksheet shall be completed by a landscape designer and submitted to the City. Once approved, the Landscape Water Allowance Worksheet will be transmitted to the local water purveyor.

- B. All Landscape Plan Documentation Packages submitted must be stamped by a Professionally Licensed Landscape Architect (PLA). The Irrigation Plan must be prepared by an IA certified Irrigation Designer, or a PLA.
- C. All landscape irrigation systems shall be installed by an IA certified Irrigation Contractor. The certified person representing the contracting firm shall be directly involved with the project and complete and document at least weekly site visits.
- D. All installers, designers and auditors shall meet state and local license, insurance, and bonding requirements able to show proof of such.
- E. During construction, site inspection may be performed by the City Building Inspection Department.
- F. Prior to issuance of Substantial Completion Status, an inspection shall be scheduled with the Building Inspection Department to verify compliance with the approved landscape plans. The Certificate of Substantial Completion shall be completed by the property owner, contractor or Landscape Designer/Landscape Architect and submitted to the City.
- G. Prior to issuance of Substantial Completion Status, a Water Audit will be conducted by an IA certified Landscape Irrigation Auditor. The auditor shall be independent of the contractor, design firm, and owner/developer of the project. The water performance audit will verify that the irrigation system complies with the minimum standards required by this ordinance. The minimum efficiency required for the irrigation system is 60% for the distribution efficiency for all fixed spray systems and 70% distribution efficiency for all rotor systems. The auditor shall furnish a certificate to the City, designer, installer, and owner/developer certifying compliance with the minimum distribution requirements, and shall also submit an irrigation schedule.
- H. The City reserves the right to perform site inspections at any time before, during or after the irrigation system and landscape installation, and to require corrective measures if requirements of this ordinance are not satisfied.

Section 2 - Repealer of Conflicting Enactments:

All orders, ordinances and resolutions regarding the changes enacted and adopted which have been adopted by the City, or parts, which conflict with this Ordinance, are, for such conflict, repealed, except this repeal shall not be construed to revive any act, order or resolution, or part, repealed.

Section 3 - Prior Ordinances and Resolutions:

The body and substance of any and all prior Ordinances and Resolutions, with their specific provisions, where not otherwise in conflict with this Ordinance, are reaffirmed and readopted.

Section 4 - Savings Clause:

If any provision of this Ordinance shall be held or deemed or shall be invalid, inoperative or unenforceable such reason shall not have the effect of rendering any other provision or provisions invalid, inoperative or unenforceable to any extent whatever, this Ordinance being deemed the separate independent and severable act of the City Council of South Ogden City.

Section 5 - Date of Effect

This Ordinance shall be effective on the 21st day of March, 2017, and after publication or posting as required by law.

DATED this 21st day of March, 2017

SOUTH OGDEN, a municipal corporation

by: _____
Mayor James F. Minster

Attested and recorded

Leesa Kapetanov, CMC
City Recorder