ORDINANCE NO. 20__-_____

AN ORDINANCE ADOPTING AND IMPLEMENTING REGULATIONS FOR LANDSCAPING AND WATER CONSERVATION FOR DEVELOPING LAND IN _____ CITY, UTAH

RECITALS AND LEGISLATIVE FINDINGS

WHEREAS, Washington County is one of the most arid and fastest growing regions in Utah with all its major population centers dependent on a single water resource that is prone to drought, so it is essential that additional water conservation initiatives are enacted to protect the county's population, economy and quality of life;

WHEREAS, _____ City, in partnership with Washington County and the Washington County Water Conservancy District, want to establish uniform standards for water efficient new development, to address limited water supplies, drought conditions, and the sustainability of future water resources;

WHEREAS, _____ City, Washington County, and the Washington County Water Conservancy District want to ensure that the City and its residents continue to have a reliable, resilient, and sustainable water supply;

WHEREAS, establishing standards for all new construction including single family residential, multi-family residential, commercial, and manufacturing development will help sustain a reliable and resilient water supply to all residents;

WHEREAS, it is in the public interest to conserve the public's water resources and to promote water efficient construction and landscaping to protect and enhance the community's environmental, economic, recreational, and aesthetic resources by promoting efficient use of water in our community's buildings and landscapes, reduce water waste, and establish a structure for designing, installing, and maintaining water efficient buildings and landscapes throughout the City;

WHEREAS, establishing standards for the use of water for outdoor landscaping and irrigation will help sustain a reliable and resilient water supply to all residents;

WHEREAS, carefully managing the county's water resources is of great importance to our community for the protection of present and future citizens;

WHEREAS, this proposed ordinance is necessary and proper for the safety, peace and good order of the City and its citizens; and

WHEREAS, this proposed ordinance is necessary for the preservation and longevity of these lands.

NOW THEREFORE, be it ordained by the City Council of _____, Utah that the attached standards and regulations are adopted, and shall be incorporated into the ordinances of the City, as Title ___, Chapters ___ through ___. This Ordinance shall become effective on the date executed below and upon posting as required by law.

APPROVED AND ADOPTED this ___ day of _____, 20__.

_____ City

_____

ATTEST:

_____

Approved as to Form:

_____

_____ City Attorney

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TITLE ___

CHAPTER 1: GENERAL PROVISIONS

__-1-1: SHORT TITLE

__-1-2: CONFLICT

__-1-3: APPLICABILITY

The provisions of this title are applicable to all new construction, development and major landscape improvements in the city. The provisions of this ordinance are severable and if any provision, clause, sentence, word, or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of this ordinance or their applicability to other persons or circumstances.

CHAPTER 2: DEFINITIONS

__-2-1: DEFINITIONS

The following definitions shall apply to this ordinance:

Active Recreation Area: An area that is dedicated to active play where grass may be used as the playing surface. Examples of active recreation areas include sports fields, play areas, and other similar uses designated for physical activity.

Check Valve: A device used in sprinkler heads or pipe to prevent water from draining out of the pipe through gravity flow.

Controller: A device used in irrigation systems to automatically control when and how long sprinklers or drip irrigation systems operate.

Drip Irrigation: An irrigation system that delivers water by adding water at the plant's base and root zone, usually measured in gallons per hour. Drip irrigation exhibits a droplet, trickle, umbrella or short stream pattern, to reduce evaporation, overspray, and water use, and improving water conservation.

Drip Emitter: A drip irrigation fitting that delivers water slowly at the root zone of the plant, usually measured in gallons per hour.

Grading Plan: The grading plan shows all finish grades, spot elevations, drainage as necessary, and new and existing contours with the developed landscaped area.

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

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Ground Cover: Material planted in such a way as to form a continuous cover over ground that can be maintained at a height no more than twelve (12) inches.

Hardscape: Elements of landscape constructed from non-living materials such as concrete, boulders, brick, blacktop, and lumber. It includes patios, decks, and paths, but does not include driveways and sidewalks.

Hydrozone: Portion of landscape area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or non-irrigated.

Irrigation Plan: A plan that shows 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.

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

Landscape Architect: A person who holds a professional license to practice landscape architecture in the state of Utah. Per State Code, licensed landscape architects, licensed architects, licensed land surveyors, and licensed engineers can professionally stamp plans that fall under the practice of landscape architecture. This includes commercial landscape and irrigation plans.

Landscape Area: Area within a lot or parcel that is not the home footprint, driveway, sidewalk or patio.

Landscape Designer: A person who may or may not hold professional certificates for landscape design/architecture, and who generally focuses on residential design and horticultural needs of home landscapes. Landscape designers cannot legally create commercial landscape plans.

Landscape Documentation Package: The documentation of graphic and written criteria, specifications, and detailed plans to arrange and modify the effects of natural features to comply with the provisions of this ordinance. The Landscape Documentation Package shall include a project data sheet, a site plan, a planting plan, an irrigation plan, construction details, and a grading plan.

Landscape or Landscaping: Any combination of berms; living plants, such as trees, shrubs, vines, ground covers, annuals, perennials, ornamental grass, or seeding; natural features such as rock, stone, or bark chips; and structural features, including but not limited to outdoor artwork, screen walls, fences or benches that create an attractive and pleasing environment.

Landscape or Landscaping Maintenance: Maintaining or keeping any landscaping, or any area required to be landscaped:

A. In a live and thriving condition, with consideration for normal growth and water needs; and

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B. Fertilized, mowed, trimmed, edged, mulched and free from weeds, dead plants, litter, refuse, or debris in compliance with regionally accepted horticultural practice and city ordinances.

Landscape Plan: A plan that clearly and accurately identifies the location and species of new and existing trees, shrubs, ground covers, and other plants on a site, and any other landscape element, and includes an irrigation plan.

Mulch: Any organic material such as leaves, bark, wood chips, straw; inorganic material such as crushed stone or gravel; other materials left loose and applied to the soil surface for the beneficial purpose of controlling weeds and conserving soil moisture.

Park Strip: A typically narrow landscaped area located between the back-of-curb and sidewalk.

Plant List: A list of locally adaptable and environmentally sustainable plants for compliant Planting Plans as provided by the Washington County Water Conservancy District.

Planting Plan: A Planting Plan that clearly and accurately identifies the type, size, and locations for new and existing trees, shrubs, planting beds, ground covers, grass areas, driveways, sidewalks, hardscape features, and fences.

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

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.

Pressure Compensating: A drip irrigation system that compensates for fluctuating water pressure by only allowing a fixed volume of water through drip emitters.

Rehabilitated Landscaping: Landscape area in which over 50% percent of existing landscaping is removed and replaced. Includes all landscaping funded in part, or completely, by Washington County Water Conservancy District's landscape conversion program.

Secondary Irrigation Water: Non-potable water that is untreated and used for irrigation of outdoor landscaping.

Slope: A vertical rise in feet measured over a horizontal distance, expressed as a percentage, measured generally at right angles to contour lines.

Water-Conserving Plant: A plant that can generally survive with available rainfall once established, with possible supplemental irrigation needed or desirable during spring and summer months or during drought periods.

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CHAPTER 3: SINGLE FAMILY AND MULTIPLE FAMILY RESIDENTIAL WATER EFFICIENCY STANDARDS

These provisions are applicable to all new construction, and new development in any residential zone, or for any single family or multiple family residential development in any zone.

__-3-1: Construction Standards

A. New single family or multiple family residential dwellings 1,000 square feet or greater shall install hot water recirculation systems, unless hot water delivery can be demonstrated to occur without first displacing more than 0.6 gallons of system water.

B. New single family or multiple family residential dwellings shall install WaterSense labeled fixtures, including, but not limited to faucets, showerheads, toilets, and urinals.

C. New single family or multiple family residential dwellings shall install Energy Star qualified appliances.

D. All multiple family units with ground floor square footage or individually platted, shall be separately metered, submetered, or equipped with alternative technology capable of tracking the water use of the individual unit, and the information shall be made available to the resident of each unit. Individually platted condominium units are excepted if a property owners association owns and maintains the water lines and meters. All multiple family projects require separate water meters for all outdoor water usage, including landscaping.

__-3-2: Landscape Standards

A. For all new residential construction or development, the landscaping shall meet the following requirements:

1. Single Family Dwellings, and Multiple Family Dwelling Projects with Ten Units or Less:

a. The total grass area shall not exceed the following:

Lot size	Maximum grass
Up to 6,000 sf	750 sf
Up to 12,000 sf	1,000 sf
Up to 18,000 sf	1,250 sf
Up to 24,000 sf	1,500 sf
More than 24,000 sf	2,000 sf

b. In addition, grass is prohibited in park strips, all landscape areas less than eight feet wide, and on any slope that exceeds 15%; and

c. Each single dwelling shall have a minimum of two water-efficient shade trees with a minimum one-and-one-half-inch (1½") caliper trunk. Each multiple family development with ten units or less shall follow city approved landscape plans for number of shade trees.

2. Multiple Family Dwelling Projects with More than Ten Units: Comply with the Landscape Standards in __-4-2, below.

__-3-3: Restrictive Covenants in Conflict with Water Efficiency Standards

Any homeowners or property owners association governing documents, such as bylaws, operating rules, covenants, conditions, and restrictions that govern the operation of a common interest development, recorded after passage of this ordinance, are void and unenforceable if they conflict with the water efficiency standards in this ordinance, or if they have the effect of prohibiting or restricting compliance with this ordinance.

CHAPTER 4: NONRESIDENTIAL ZONES AND DEVELOPMENT WATER EFFICIENCY STANDARDS

These provisions are applicable to all new construction and new development in all nonresidential zones, and nonresidential development in any zone.

__-4-1: Construction Standards

A. Hot water recirculation systems shall be installed, unless hot water delivery can be demonstrated to occur without first displacing more than 0.6 gallons of system water.

B. WaterSense labeled fixtures shall be installed, including, but not limited to faucets, showerheads toilets, and urinals.

C. Energy Star qualified appliances shall be installed.

D. All shell units with ground floor square footage, or individually platted, shall be separately metered, submetered, or equipped with alternative technology capable of tracking the water use of the individual unit, and the information shall be made available to the individual unit. Individually platted condominium units are excepted if a property owners association owns and maintains the water lines and meters. All nonresidential projects require separate water meters for all outdoor water usage, including landscaping.

E. All carwash projects shall recirculate and limit the maximum amount of water to 35 gallons per vehicle washed.

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F. Exterior, decorative water features are prohibited, except up to five decorative water features with 50 gallon or less capacity and maintained recirculating pumps.

G. All golf courses using water district or municipal water supplies shall irrigate with secondary irrigation water and shall have separate water meters for the golf course. Irrigation with potable water is prohibited. Each golf course development shall submit and follow a water budget with the Landscape Documentation Packet and identify water conservation measures for city approval.

H. Outside misting systems shall only operate during the May through August time period where the daily high temperature is 90 degrees Fahrenheit or greater.

__-4-2: Landscape Standards

A. All new construction and new development in all nonresidential zones, and nonresidential development in any zone, shall meet the Landscape Design Standards and Irrigation Design Standards of this ordinance.

1. Grass is not permitted outside of an active recreation area. In addition, grass is prohibited in park strips, all landscape areas less than eight feet wide, and on any slope that exceeds 15%.

2. Landscape and irrigation installers shall follow the plans that have been signed and approved by the city.

3. Each project shall propose and follow an approved Planting Plan that has a minimum of 40% vegetative cover of a landscaped area with water-efficient shade trees and bushes adequate in number and configuration to visually enhance the project, prevent heat islands, and prevent soil erosion. The configuration of the vegetation in the Planting Plan is in the sole discretion of the city.

4. If secondary irrigation water is available, each project shall connect to the system for all outdoor water use. A city may make minor exceptions, allowing use of treated water for outdoor plantings in small beautification areas, in its sole discretion.

B. Required Documentation

1. Landscape Documentation Package: A copy of a Landscape Documentation Package shall be submitted to and approved by the city prior to the issue of any building permit. A copy of the approved Landscape Documentation Package shall be provided to the property owner or site manager. The Landscape Documentation Package shall be prepared by a professional landscape architect (PLA) and shall consist of the following items:

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a. Project Data Sheet containing the following:

   i. Project name and address;

   ii. Applicant or applicant agent's name, address, phone number, and email address;

   iii. Landscape architect's name, address, phone number, and email address; and

   iv. Landscape contractor's name, address, phone number and email address, if available at this time.

b. Planting Plan. A detailed Planting Plan shall be drawn at a scale that clearly identifies the following:

   i. Location of all plant materials, a legend with common and botanical names, and size of plant materials;

   ii. Property lines and street names;

   iii. Existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements;

   iv. Existing trees and plant materials to be removed or retained;

   v. Scale: graphic and written;

   vi. Date of design;

   vii. Designation of hydrozones, and

   viii. Details and specifications for tree staking, soil preparation, and other planting work.

c. Irrigation Plan. A detailed irrigation plan shall be drawn at the same scale as the Planting Plan and contain the following information:

   i. Layout of the irrigation system and a legend summarizing the type and size of all components of the system, including manufacturer name and model numbers;

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

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iii. 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 irrigation equipment (i.e., sprinklers, drip emitters, bubblers, etc.); and

iv. 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 the following information:

i. Property lines and street names, existing and proposed buildings, walls, fences, utilities, paved areas and other site improvements; and

ii. Existing and finished contour lines and spot elevations as necessary for the proposed site improvements, as well as drainage.

2. Plan Review, Construction Inspection, and Post-Construction Monitoring.

a. As part of the building permit approval process, a copy of the Landscape Documentation Package shall be submitted with a city provided pre-submittal checklist completed to initiate a review and approval process before construction begins.

b. All installers and designers shall meet state and local license, insurance, and bonding requirements, and be able to show proof of such.

c. During construction, site inspection of the landscaping may be performed by the city Building Inspection Department or other entity tasked with approvals.

d. Following construction, and prior to issuing an occupancy permit, an inspection shall be scheduled with the Building Inspection Department or other appointed entity to verify compliance with the approved landscape plans. The Certificate of Substantial Completion shall be completed by the property owner, developer, contractor or landscape architect and submitted to the city.

e. The city or other appointed entity 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.

CHAPTER 5: LANDSCAPE AND IRRIGATION DESIGN STANDARDS FOR ALL NEW DEVELOPMENT IN ANY ZONE

10-5-1: Plant Selection

Plants shall be well-suited to the microclimate and soil conditions at the project site. Native, locally adaptable and environmentally sustainable plants are acceptable. See the Washington County Water Conservancy District's recommended plant list on wcwcd.org. Plants with similar water needs shall be grouped together as much as possible into hydrozones for efficient irrigation. Invasive plant species as identified by the city shall not be planted.

A. Areas with slopes greater than 15% shall be landscaped with deep-rooting, water-conserving plants that do not include grass.

B. Park strips and other landscaped areas less than eight (8) feet wide shall be landscaped with water-conserving plants and/or mulch that do not include grass.

10-5-2: 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 suited for water-efficient landscapes. Trees shall be selected and planted in accordance with the following city guidance:

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. Select trees from which lower branches will be trimmed to maintain a healthy growth habit where visual clearance and natural surveillance is a concern;

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

E. Tree placement shall provide canopy cover (shade) and avoid conflicts with existing trees, retaining walls, above and below ground utilities, lighting, and other obstructions; and

Trees shall be irrigated on a separate hydrozone as needed for efficient irrigation and allow for watering under water-shortage conditions when other plant material may not be watered due to drought conditions.

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__-5-3: Irrigation Design Standards

A. Pressure Regulation. A pressure regulating valve shall be installed by the builder or developer, and maintained by the owner, if the static service pressure exceeds 90 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. It is required that landscaped areas use a WaterSense labeled 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 and have memory retention capability to retain pre-programmed irrigation schedules. Sites are not exempt from water waste prohibitions.

C. Each valve shall irrigate a landscape with a similar site, slope and soil conditions, and plant materials with similar watering needs. Grass, trees and non-grass areas shall be irrigated on separate valves. Drip emitters and sprinklers shall be placed on separate valves.

D. Low-volume irrigation equipment (i.e., drip emitters, bubblers) shall be provided for each tree.

E. Drip irrigation shall be used to irrigate plants in non-grass areas. Spray head to drip conversion for rehabilitated landscape sites may be acceptable with city approval of Irrigation Plans.

F. High conservation efficiency spray nozzles are required for sprinkler applications.

G. Sprinkler heads 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 are required. Pressure compensating valves and sprinklers are 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 for drip irrigation lines.

K. Landscape watering with potable (treated) water is prohibited from 10 a.m. to 8 p.m., from June 1 to September 1, to maximize irrigation efficiency.

L. Water waste is prohibited. Waste includes overwatering, irrigating during a precipitation event, water that sprays or flows off your property, failure to comply with drought restrictions and/or a failure to repair irrigation system leaks and/or malfunctions in a timely manner.

Overwatering can be avoided by following the water district's recommended irrigation schedule and practices as noted on wcwcd.org. The generally recommended schedule is:

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- Winter (Nov – Feb) – sprinkler and drip irrigation up to 1 day a week. Irrigation is typically not needed in December and January
- Spring (Mar – April) – sprinkler irrigation up to 3 days a week and drip irrigation up to 2 days a week
- Summer (May – Aug) – sprinkler irrigation up to 4 days a week and drip irrigation up to 3 days a week
- Fall (Sept – Oct) – sprinkler irrigation up to 3 days a week and drip irrigation up to 2 days a week

M. Program valves for multiple repeat cycles are required to reduce runoff on slopes and for soils with slow infiltration rates.

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