

1. Agenda

Documents:

[040523.PCWM.NEIGHBOR.PDF](#)

2. Packet Materials

Documents:

[ITEM A2 - OPEN SPACE PRESERVATION PC REPORT 4-5-23.PDF](#)
[ITEM A3 - WATER CONSERVATION PC REPORT 4-5-23.PDF](#)



118 Lion Blvd ◦ PO Box 187 ◦ Springdale, UT 84767 ◦ (435) 772-3434

PLANNING COMMISSION NOTICE AND AGENDA

THE SPRINGDALE PLANNING COMMISSION WILL HOLD A WORK MEETING
ON WEDNESDAY, APRIL 5, 2023, AT 5:00 PM
AT THE CANYON COMMUNITY CENTER, 126 LION BLVD – SPRINGDALE, UT 84767
A live broadcast of this meeting will be available to the public for viewing/listening only.

****Please see electronic login information below****

Approval of the agenda General announcements

A. Discussion / Non-Action Items

1. Update on Transient Lodging Working Group and Housing Committee efforts
2. Continued discussion on open space planning strategies
3. Discussion on possible land use regulations and strategies to promote water conservation and more efficient use of water resources

B. Adjourn

This notice is provided as a courtesy to the community and is not the official notice for this meeting/hearing. This notice is not required by town ordinance or policy. Failure of the Town to provide this notice or failure of a property owner, resident, or other interested parties to receive this notice does not constitute a violation of the Town's noticing requirements or policies.

****To access the electronic webinar, please click the Zoom link below:**

<https://us02web.zoom.us/j/84816823703>

Meeting ID: 848 1682 3703

One tap mobile
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NOTICE: In compliance with the Americans with Disabilities Act, individuals needing special accommodations or assistance during this meeting should contact Town Clerk Darci Carlson at 435.772.3434 at least 48 hours before the meeting.

Packet materials for this meeting will be available at: <https://www.springdaletown.com/agendacenter>



Memorandum

To: Planning Commission
From: Thomas Dansie, Director of Community Development
Date: March 31, 2023
Re: Continued Discussion Regarding Open Space Preservation Planning

The Planning Commission has discussed open space preservation strategies in previous work meetings. Commissioners may wish to review the minutes of the [February 1](#) and [March 15](#) meetings for a summary of previous discussion. Based on those discussions, the Commission has developed the beginnings of an open space plan. This report presents a draft framework for such a plan. The Commission should discuss this framework and give staff direction on how to further develop and refine it.

Draft Open Space Plan

The Town should use the following principles to identify and protect potential open space properties.

Priority Areas

The following general areas should be considered for open space preservation, listed in order of decreasing priority:

1. Hillsides
2. Pastures, orchards, and agricultural use areas
3. Riparian areas
4. Wildlife habitat and corridor areas
5. Other ecologically sensitive areas
6. Park-like landscaped areas (on private or public property)

Priority Characteristics

In addition to the general property categories listed above, the following property characteristics should be considered when identifying potential open space:

1. The property should be visible from SR9.
2. The property should be large enough to provide meaningful open space benefit, based on the function of the open space. For example, preserved hillside areas should be large enough to preserve a complete slope, and not just isolated portions of the slope. A wildlife corridor should be large enough to provide meaningful unobstructed passage for wildlife through the area.
3. Open spaces contiguous to other open space or protected areas should be encouraged to provide open space connectivity and to maximize the open feel of the area. Small, isolated pieces of open space are not preservation priorities.

Preservation Strategies

The Town should use the following strategies to acquire the priority open spaces identified above:

1. Purchase of Development Rights: The Town should seek funding sources and partnerships to be able to purchase the development rights (conservation easements, or if possible fee simple acquisition) on priority open space properties. These funding sources include:
 - a. Open space preservation bond (voter approved General Obligation bond)
 - b. Federal and State grant programs (Land and Water Conservation Fund, LeRay McAllister Fund, etc.)
 - c. Partnerships with conservation organizations (The Nature Conservancy, The Trust for Public Lands, etc.)
2. Reduced Density in Foothill Areas: The Town should revise land use regulations by creating a new zone with reduced density (one unit per 10 acres?) in sensitive foothill locations.
3. Transfer of Development Rights: The Town should establish TDR program by identifying priority areas for open space preservation (based on the criteria above) and designate them 'sending' zones. Areas that can accommodate additional development should be strategically selected and identified as 'receiving' zones. The development potential from the sending zone properties can then be transferred to receiving zone properties. A conservation easement would then be recorded on the sending zone properties to prevent future development in these areas.

Planning Commission Direction

The Planning Commission should discuss this framework for an open space plan and policy and give staff feedback and direction. Based on this feedback staff will develop a more thorough and detailed open space plan.



Memorandum

To: Planning Commission
From: Thomas Dansie, Director of Community Development
Date: March 31, 2023
Re: Discussion Regarding Water Conservation Strategies

Water conservation is a pressing local and regional issue. The western United States is experiencing a 20 year long mega drought. This drought has diminished water supply in regional storage reservoirs and depleted aquifers upon which communities in the region rely. At the same time, the region has been one of the fastest growing areas in the country, increasing demand for water. Climate change is likely to add increased uncertainty to the region’s water supply. All these factors make water conservation an increasingly complex and important issue for the western US in general, specifically including all of Washington County, Utah.

Springdale is fortunate to have a water system designed to handle the anticipated needs and demands of its existing and projected future development. However, given the uncertainties associated with drought and climate change and the increasing regional demand for water the Town should make water conservation a priority. The Planning Commission has identified water conservation policy and strategies as a top priority.

The Town Council recently adopted a [Water Conservation and Management Plan](#), which establishes a goal to reduce the Town’s per capita water consumption by 14% by 2030. That Plan provides some suggested strategies the Town can adopt to promote water conservation. The purpose of the Planning Commission’s upcoming work on this topic will be to build on the recommendations in the Water Conservation and Management Plan by adopting specific water conserving strategies, particularly those related to land use and development of property.

This report provides a foundation for the Commission to begin working on this topic. This report does the following:

1. Provides an overview of the Town’s existing water system.
2. Summarizes direction from the General Plan regarding water conservation.
3. Highlights examples of water conservation measures adopted by other desert communities.

Based on this information the Commission should begin a discussion on strategies for water conservation.

Town’s Existing Water System

The Town operates two water systems: a culinary water system and a secondary (irrigation) water system. The culinary system provides treated drinking water to homes and businesses. The secondary

system delivers untreated, but pressurized, water for outdoor irrigation use. Both systems use water diverted from the Virgin River through a diversion structure in Zion National Park which is then delivered to the Town through a water line. Water for the culinary system is diverted to the Town's treatment plant, while water for the secondary system is delivered directly to customers without any treatment.

The "capacity" of a culinary water system is limited by a number of different constraints: the total amount of water rights, the treatment capacity of the system, the total amount of water storage in the system, and the ability of the system to deliver the water. In discussing water conservation, the total amount of water right is the most critical consideration.

The Town Engineer, Sunrise Engineering, performs an analysis each time the Town adopts a new culinary water master plan to determine if the Town's water rights are adequate to supply anticipated build-out demand. The most recent [culinary water master plan](#) was adopted in 2016 and contains such an analysis. Sunrise Engineering is currently working on an update to this plan. As part of this update Sunrise will reanalyze and reverify the Town's water system meets the current and anticipated future demand for water over a 20 year planning period. Sunrise will provide an initial summary of the updated analysis of water right capacity vis-a-vis anticipated build-out demand prior to the Planning Commission's meeting.

In addition to the water rights owned by the Town, the Springdale Consolidated Irrigation Company owns water rights. The water from rights owned by the Town and water from those owned by the Irrigation Company flow through the same water infrastructure and in many ways are operated as a single system. However, the water rights owned by the Irrigation Company can only be used for irrigation uses.

In previous analyses, Sunrise has found the *total* amount of water right in Springdale is more than sufficient to supply the Town's anticipated build-out water demand. However, this analysis assumes the water rights currently owned by the Springdale Consolidated Irrigation Company will be converted to use in the culinary water system when they are no longer needed for irrigation. The overwhelming majority of water used in Springdale is used for irrigation purposes. Thus, strategies aimed at enhancing water conservation in irrigation will be particularly helpful as the Town seeks to achieve its water conservation goals.

The Commission should also be aware of potentially competing priorities of water conservation and preservation of irrigated pastures and orchards. The Commission has indicated pasture and orchard open space is important to preserve to enhance the Town's rural character. Many of these pastures and orchards are now ornamental, rather than functional for agricultural purposes. Keeping such pastures and orchards maintained requires significant irrigation. The Commission may wish to discuss this issue to see if there are strategies that can at once preserve important open space and assist in water conservation.

The Town has an [ordinance](#) which requires developers to either dedicate water (in the form of shares in the irrigation company) or to pay an in-lieu fee at the time new development is approved. The in-lieu fee

is then used to purchase shares in the irrigation company from willing sellers. This ordinance is intended to help facilitate the conversion of irrigation water rights to culinary water rights as irrigated lands are developed. In practice, most developers elect to pay the in-lieu fee rather than dedicate shares in the irrigation company, leaving the Town with the burden of finding willing sellers to purchase water shares from. The Commission may wish to discuss strategies to more effectively encourage the conversion of irrigation water to culinary water.

General Plan Direction on Water Conservation

The General Plan contains the following direction related to water conservation:

Municipal and Public Services

Goal A: Ensure that consistent, effective, and affordable water is available to all residents and businesses.

Sub Goal A-1: The Town Public Works Department will continue to provide culinary water of excellent quality and reliability to all residents and businesses. The Town will develop plans and strategies to ensure long term water supply, particularly accounting for the impacts of climate change and potential prolonged drought.

Sub Goal A-3: The Town will adopt and enforce water conservation policies to ensure adequate water minimum water supply for the Town, especially in times of drought. These policies could include prohibition of water intense landscape such as large areas of turf grass and water rate structure that encourages conservation.

- a. The Town Council will investigate incentives for property owners who remove water intensive landscape (such as large lawns), as well as policies that prohibit water intensive landscape in new development.

Sub Goal A-5: The Town Council will ensure the Town's land use planning is consistent with the Town's long term water supply. This effort will analyze not only the quantity of water available to the Town from its legal water rights, but also the amount of water actually physically available to the Town from its water sources after accounting for the impacts of long term drought and climate change. The Town Council will make adjustments to both land use planning and water conservation policy to ensure the Town does not overcommit water resources to new development which may not be available in time of drought.

Sub Goal E-3: The Town staff will provide educational outreach to residents to encourage water and energy conservation.

Natural and Cultural Resources

Sub Goal A-2: The Planning Commission will require water conservation measures for new and existing development.

Water Conservation Strategies from Other Communities

Because water conservation is a pressing regional issue, many communities in the area are also in the process of encouraging more water conservation. The Washington County Water Conservancy District encourages communities in the region to adopt water conservation strategies and has developed a model water conservation ordinance to assist communities in this effort (a copy is attached). The following is a summary of suggestions from the Washington County Water Conservancy District as well as strategies adopted in other southern Utah communities.

- *Time of day regulations for outdoor watering:* Prohibit outdoor irrigation between 10 a.m. and 8 p.m. in the summer season.
- *Appliance requirements for new development:* Require hot water recirculation systems as well as WaterSense labeled fixtures and Energy Star appliances for all new development.
- *Water metering:* Require individual meters at multi-family housing and multi-unit commercial properties with the capability to track unit specific use.
- *Turf grass and landscape regulations:* Prohibit non-functional grass in new commercial, institutional and industrial developments. Limit grass in new residential developments (8% of the lot size with a cap for large lots). Prohibit grass on park strips, in areas less than 8 feet wide, and on slopes greater than 15%.
- *Car wash regulations:* Limit car wash facilities to 35 gallons or less per washed vehicle.
- *Swimming pool and water feature regulations:* Require all pools to be equipped with pool covers which close automatically when the pool is not in use. Limit/prohibit decorative water features (e.g. max of 50 gallons can be used in the water feature). Reduce the amount of turf grass allowed in a development if a pool and/or water feature is on the property.
- *Mister regulations:* Limit commercial misting systems for use only from May – August when temperatures exceed 90 degrees.

Suggested Commission Action

The Commission should review this background material to become familiar with the water system in the Town of Springdale. The Commission should also become familiar in general with water conservation strategies used in other communities. The Commission should then begin a discussion on which conservation strategies are most appropriate for the Town of Springdale.

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

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

41 _____ City

42

43

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45 ATTEST:

46 _____

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48 Approved as to Form:

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50 _____

51 _____ City Attorney

52

DRAFT

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.

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

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

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

98 Irrigation Plan: A plan that shows the components of the irrigation system with water meter
99 size, backflow prevention, precipitation rates, flow rate, and operating pressure for each
100 irrigation circuit, and identification of all irrigation equipment.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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160 **CHAPTER 3: SINGLE FAMILY AND MULTIPLE FAMILY RESIDENTIAL WATER**
161 **EFFICIENCY STANDARDS**

162
163 These provisions are applicable to all new construction, and new development in any residential
164 zone, or for any single family or multiple family residential development in any zone.

165
166 **__-3-1: Construction Standards**

- 167
168 A. New single family or multiple family residential dwellings 1,000 square feet or greater
169 shall install hot water recirculation systems, unless hot water delivery can be
170 demonstrated to occur without first displacing more than 0.6 gallons of system water.
171
172 B. New single family or multiple family residential dwellings shall install WaterSense
173 labeled fixtures, including, but not limited to faucets, showerheads, toilets, and urinals.
174
175 C. New single family or multiple family residential dwellings shall install Energy Star
176 qualified appliances.
177
178 D. All multiple family units with ground floor square footage or individually platted, shall
179 be separately metered, submetered, or equipped with alternative technology capable of
180 tracking the water use of the individual unit, and the information shall be made available
181 to the resident of each unit. Individually platted condominium units are excepted if a
182 property owners association owns and maintains the water lines and meters. All multiple
183 family projects require separate water meters for all outdoor water usage, including
184 landscaping.

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186 **__-3-2: Landscape Standards**

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188 A. For all new residential construction or development, the landscaping shall meet the
189 following requirements:
190
191 1. Single Family Dwellings, and Multiple Family Dwelling Projects with Ten Units
192 or Less:
193
194 a. The total grass area shall not exceed the following:
195 Lot size Maximum grass
196 Up to 6,000 sf 750 sf
197 Up to 12,000 sf 1,000 sf
198 Up to 18,000 sf 1,250 sf
199 Up to 24,000 sf 1,500 sf
200 More than 24,000 sf 2,000 sf
201
202 b. In addition, grass is prohibited in park strips, all landscape areas less than eight
203 feet wide, and on any slope that exceeds 15%; and
204

- 205 c. Each single dwelling shall have a minimum of two water-efficient shade trees
206 with a minimum one-and-one-half-inch (1½") caliper trunk. Each multiple
207 family development with ten units or less shall follow city approved landscape
208 plans for number of shade trees.
209
210 e. The area of any uncovered pool will be counted towards the allowed amount of
211 grass.
212

- 213 2. Multiple Family Dwelling Projects with More than Ten Units: Comply with the
214 Landscape Standards in __-4-2, below.
215

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

217 Any homeowners or property owners association governing documents, such as bylaws, operating
218 rules, covenants, conditions, and restrictions that govern the operation of a common interest
219 development, recorded after passage of this ordinance, are void and unenforceable if they conflict
220 with the water efficiency standards in this ordinance, or if they have the effect of prohibiting or
221 restricting compliance with this ordinance.
222

223
224 **CHAPTER 4: NONRESIDENTIAL ZONES AND DEVELOPMENT WATER**
225 **EFFICIENCY STANDARDS**
226

227 These provisions are applicable to all new construction and new development in all nonresidential
228 zones, and nonresidential development in any zone.
229

230 **__-4-1: Construction Standards**
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- 232 A. Hot water recirculation systems shall be installed, unless hot water delivery can be
233 demonstrated to occur without first displacing more than 0.6 gallons of system water.
234
235 B. WaterSense labeled fixtures shall be installed, including, but not limited to faucets,
236 showerheads toilets, and urinals.
237
238 C. Energy Star qualified appliances shall be installed.
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240 D. All shell units with ground floor square footage, or individually platted, shall be
241 separately metered, submetered, or equipped with alternative technology capable of
242 tracking the water use of the individual unit, and the information shall be made available
243 to the individual unit. Individually platted condominium units are excepted if a property
244 owners association owns and maintains the water lines and meters. All nonresidential
245 projects require separate water meters for all outdoor water usage, including landscaping.
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247 E. All carwash projects shall recirculate and limit the maximum amount of water to 35
248 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

292 Documentation Package shall be prepared by a professional landscape architect
293 (PLA) and shall consist of the following items:

- 294
- 295 a. Project Data Sheet containing the following:
- 296
- 297 i. Project name and address;
- 298
- 299 ii. Applicant or applicant agent's name, address, phone number, and email
300 address;
- 301
- 302 iii. Landscape architect's name, address, phone number, and email address;
303 and
- 304
- 305 iv. Landscape contractor's name, address, phone number and email address,
306 if available at this time.
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- 308 b. Planting Plan. A detailed Planting Plan shall be drawn at a scale that clearly
309 identifies the following:
- 310
- 311 i. Location of all plant materials, a legend with common and botanical
312 names, and size of plant materials;
- 313
- 314 ii. Property lines and street names;
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- 316 iii. Existing and proposed buildings, walls, fences, utilities, paved areas and
317 other site improvements;
- 318
- 319 iv. Existing trees and plant materials to be removed or retained;
- 320
- 321 v. Scale: graphic and written;
- 322
- 323 vi. Date of design;
- 324
- 325 vii. Designation of hydrozones, and
- 326
- 327 viii. Details and specifications for tree staking, soil preparation, and other
328 planting work.
- 329
- 330 c. Irrigation Plan. A detailed irrigation plan shall be drawn at the same scale as
331 the Planting Plan and contain the following information:
- 332
- 333 i. Layout of the irrigation system and a legend summarizing the type and
334 size of all components of the system, including manufacturer name and
335 model numbers;
- 336

- 337 ii. Static water pressure in pounds per square inch (psi) at the point of
338 connection to the public water supply;
339
340 iii. Flow rate in gallons per minute and design operating pressure in psi for
341 each valve and precipitation rate in inches per hour for each valve with
342 irrigation equipment (i.e., sprinklers, drip emitters, bubblers, etc.); and
343
344 iv. Installation details for irrigation components.
345
346 d. Grading Plan. A grading plan shall be drawn at the same scale as the Planting
347 Plan and shall contain the following information:
348
349 i. Property lines and street names, existing and proposed buildings, walls,
350 fences, utilities, paved areas and other site improvements; and
351
352 ii. Existing and finished contour lines and spot elevations as necessary for
353 the proposed site improvements, as well as drainage.
354
355 2. Plan Review, Construction Inspection, and Post-Construction Monitoring.
356
357 a. As part of the building permit approval process, a copy of the Landscape
358 Documentation Package shall be submitted with a city provided pre-
359 submittal checklist completed to initiate a review and approval process
360 before construction begins.
361
362 b. All installers and designers shall meet state and local license, insurance, and
363 bonding requirements, and be able to show proof of such.
364
365 c. During construction, site inspection of the landscaping may be performed by
366 the city Building Inspection Department or other entity tasked with
367 approvals.
368
369 d. Following construction, and prior to issuing an occupancy permit, an
370 inspection shall be scheduled with the Building Inspection Department or
371 other appointed entity to verify compliance with the approved landscape
372 plans. The Certificate of Substantial Completion shall be completed by the
373 property owner, developer, contractor or landscape architect and submitted
374 to the city.
375
376 e. The city or other appointed entity reserves the right to perform site
377 inspections at any time before, during or after the irrigation system and
378 landscape installation, and to require corrective measures if requirements of
379 this ordinance are not satisfied.
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DRAFT

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

386

387 **10-5-1: Plant Selection**

388

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

394

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

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

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401 **10-5-2: Tree Selection**

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403 Tree species shall be selected based on growth characteristics and site conditions, including available
404 space, overhead clearance, soil conditions, exposure, and desired color and appearance. Trees shall
405 be suited for water-efficient landscapes. Trees shall be selected and planted in accordance with the
406 following city guidance:

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

408

409 B. Low-growing trees shall be selected for spaces under utility wires;

410

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

413

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

417

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

420

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

424

425 **__-5-3: Irrigation Design Standards**

- 426 A. Pressure Regulation. A pressure regulating valve shall be installed by the builder or
427 developer, and maintained by the owner, if the static service pressure exceeds 90 pounds per
428 square inch (psi). The pressure-regulating valve shall be located between the meter and the
429 first point of water use, or first point of division in the pipe, and shall be set at the
430 manufacturer's recommended pressure for the sprinklers.
431
- 432 B. Irrigation Controller. It is required that landscaped areas use a WaterSense labeled smart
433 irrigation controller, which automatically adjusts the frequency and/or duration of irrigation
434 events in response to changing weather conditions. All controllers shall be equipped with
435 automatic rain delay or rain shut-off capabilities and have memory retention capability to
436 retain pre-programmed irrigation schedules. Sites are not exempt from water waste
437 prohibitions.
438
- 439 C. Each valve shall irrigate a landscape with a similar site, slope and soil conditions, and plant
440 materials with similar watering needs. Grass, trees and non-grass areas shall be irrigated on
441 separate valves. Drip emitters and sprinklers shall be placed on separate valves.
442
- 443 D. Low-volume irrigation equipment (i.e., drip emitters, bubblers) shall be provided for each
444 tree.
445
- 446 E. Drip irrigation shall be used to irrigate plants in non-grass areas. Spray head to drip
447 conversion for rehabilitated landscape sites may be acceptable with city approval of Irrigation
448 Plans.
449
- 450 F. High conservation efficiency spray nozzles are required for sprinkler applications.
451
- 452 G. Sprinkler heads shall have matched precipitation rates with each control valve circuit.
453
- 454 H. Sprinkler heads shall be attached to rigid lateral lines with flexible material (swing joints) to
455 reduce potential for breakage.
456
- 457 I. Check valves are required. Pressure compensating valves and sprinklers are required where a
458 significant variation in water pressure occurs within the irrigation system due to elevation
459 differences.
460
- 461 J. Filters and end-flush valves shall be provided for drip irrigation lines.
462
- 463 K. Landscape watering with potable (treated) water is prohibited from 10 a.m. to 8 p.m., from
464 June 1 to September 1, to maximize irrigation efficiency.
465
- 466 L. Water waste is prohibited. Waste includes overwatering, irrigating during a precipitation
467 event, water that sprays or flows off your property, failure to comply with drought
468 restrictions and/or a failure to repair irrigation system leaks and/or malfunctions in a timely
469 manner.
470

471 Overwatering can be avoided by following the water district's recommended irrigation
472 schedule and practices as noted on wcwd.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

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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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