

Ordinance No. 10.XXXX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CUPERTINO REPEALING THE EXISTING CHAPTER 14.15 OF THE CUPERTINO MUNICIPAL CODE, XERISCAPE LANDSCAPING, AND ADOPTING A NEW CHAPTER 14.15, LANDSCAPE ORDINANCE, IN ORDER TO ESTABLISH NEW LANDSCAPING REGULATIONS PURSUANT TO THE CALIFORNIA WATER CONSERVATION IN LANDSCAPING ACT.

THE CITY OF CUPERTINO ORDAINS AS FOLLOWS:

Section 1. *Statement of Purpose.* This ordinance establishes new water-efficient landscaping and irrigation requirements as mandated by the California Water Conservation in Landscaping Act.

Section 2. *Code Amendment.* The following new Chapter 14.15 entitled "Landscape Ordinance" replaces the current Chapter 14.15 entitled "Xeriscape Landscaping" of the Cupertino Municipal Code, to read as shown in Attachment A.

Section 3. *Severability.* Should any provision of this Ordinance, or its application to any person or circumstance, be determined by a court of competent jurisdiction to be unlawful, unenforceable or otherwise void, that determination shall have no effect on any other provision of this Ordinance or the application of this Ordinance to any other person or circumstance and, to that end, the provisions hereof are severable.

Section 4. *Effective Date.* This Ordinance shall take effect thirty days after adoption as provided by Government Code Section 36937.

Section 5. *Certification.* The City Clerk shall certify to the passage and adoption of this Ordinance and shall give notice of its adoption as required by law. Pursuant to Government Code Section 36933, a summary of this Ordinance may be published and posted in lieu of publication and posting of the entire text.

INTRODUCED at a regular meeting of the Cupertino City Council the ____ day of _____ 2010 and ENACTED at a regular meeting of the Cupertino City Council on this ____ of _____ 2010 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Chapter 14.15

LANDSCAPE ORDINANCE

Section

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14.15.010. Intent.

The intent of this chapter is to reduce water waste in landscaping by promoting the use of region-appropriate plants that require minimal supplemental irrigation, and by establishing standards for irrigation efficiency. This chapter implements the California Water Conservation in Landscaping Act of 2006.

14.15.020. Applicability.

- A. The provisions of this chapter shall apply to:
 - 1. Projects identified in Table 14.15.020.

Table 14.15.020

Type of Permit	Total Landscape Area	Requirement
Building Permits		
New home in R1, RHS or A1 zones	≤ 2,500 s.f.	Checklist (Appendix A) - Informational ONLY
	> 2,500 s.f.	Landscape Project Submittal - Sec. 14.15.040
Development Permit or Grading Permit		
New home in R1, RHS, A1 or R2 Zones	≤ 2,500 s.f.	Checklist (Appendix A) - Informational ONLY
	> 2,500 s.f.	Landscape Project Submittal - Sec. 14.15.040
Commercial, industrial, office, multi-family residential, public and institutional project	≤ 2,500 s.f.	Checklist - Appendix A - Applies
	> 2,500 s.f.	Landscape Project Submittal - Sec. 14.15.040
Any landscape installation or rehabilitation project	≤ 2,500 s.f.	Checklist - Appendix A
	> 2,500 s.f.	Landscape Project Submittal - Sec. 14.15.040
New and rehabilitated cemeteries	> 0 s.f.	Water Budget Calculations - Sec. 14.15.060 Landscape Installation Report - Sec. 14.15.080 Landscape and Irrigation Maintenance - Sec. 14.15.090
Existing and established landscapes, including cemeteries	> 1 acre	Water Budget Calculations - Sec. 14.15.060 Audit of Established Landscapes - Sec. 14.15.100

2. Any project, regardless of total landscape area, that is determined to have an impact due to a unique geographical or environmentally sensitive location, including but not limited to, projects proposed on slopes greater than 30%, in geo-hazard areas near riparian corridors, creeks and or/waterways, the city may require a landscape project submittal.

B. The provisions of this chapter shall not apply to:

1. Registered local, state or federal historical sites where landscaping establishes an historical landscape style, as determined by the City Council;
2. Surface mine reclamation projects that do not require a permanent irrigation system;
3. Ecological restoration projects that do not require a permanent irrigation system;
4. Community gardens or plant collections, as part of botanical gardens and arboretums open to the public; or
5. Any commercial cultivation of agricultural products; including, but not limited to products of farms, orchards, production nurseries and forests.

14.15.030. Definitions.

For the purposes of this chapter, the following definitions apply, unless it is apparent from the context that a different meaning is intended.

Applied water: The portion of water supplied by the irrigation system to the landscape.

Automatic irrigation controller: An automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

Backflow prevention device: A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

Certified irrigation designer: A person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

Certified landscape irrigation auditor: A person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

Certified professional: A certified irrigation designer, certified landscape irrigation auditor, licensed landscape architect, licensed landscape contractor, licensed professional engineer, or any other person authorized by the state to design a landscape, an irrigation system, or authorized to complete a water budget.

Conversion factor: The number (0.62) that converts acre-inches per acre per year to gallons per square foot per year.

Ecological restoration project: A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

Effective precipitation (Eppt) or usable rainfall: The portion of total precipitation which becomes available for plant growth.

Established landscape. The point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

Establishment period of plants: The first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.

Estimated Total Water Use (ETWU): The total water used for the landscape as described in Section 14.15.060.

Evapotranspiration adjustment factor (ETAF): A factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency. ETAF for a **special landscape area** shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.

Evapotranspiration rate: The quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

Hardscape: Any constructed feature in a landscape built of concrete, stone, wood, or other such non-pervious or pervious durable material, including, but not limited to, patios, walkways, and retaining walls.

Hydrozone: A portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

Invasive plant species: Species of plants, listed in the invasive plant inventory of the California Invasive Plant Council (IPC), that have been identified as invasive to areas within the IPC-delineated Central West (CW) region.

Irrigation audit: An in-depth evaluation of the performance of an irrigation system conducted by a certified landscape irrigation auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

Irrigation efficiency (IE): The measurement of the amount of water beneficially used divided by the amount of water applied. The minimum average irrigation efficiency for purposes of this Chapter is 70%.

Irrigation survey: An evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.

Landscape architect: A person who holds a license to practice landscape architecture in California as further defined by the California Business and Professions Code Section 5615.

Landscape area: All the planting areas, turf areas, and water features in a landscape installation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing wildland or native vegetation).

Landscape contractor: A person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

Landscape project: An undertaking of landscape design and installation on a particular area of land. A landscape project may be associated with an individual lot, a building project, or a

multi-phased development. It may also be a larger, comprehensive landscape scheme that is not coupled with an individual building project.

Lateral line: The water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

Low water use plant: A plant species whose demonstrated water needs are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established. Species classified as “very low water use” and “low water use” by “Water Use Classification of Landscape Species” (WUCOLS), having a regionally adjusted plant factor of 0.0 through 0.3, shall be considered low water use plants.

Low-volume irrigation: The application of irrigation water through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines and bubblers specifically designed to apply small volumes of water slowly at or near the root zone of plants. Certain rotary emitters designed to provide highly efficient water distribution may also be included in this definition, at the discretion of the Director of Community Development.

Maximum Applied Water Allowance (MAWA): The upper limit of annual applied water for the established landscaped area calculated using the formula specified in Section 14.15.090.

Mined-land reclamation projects: Any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

Mulch: Any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite, left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

Native plant: A plant indigenous to a specific area of consideration. For the purpose of this Chapter, the term refers to plants indigenous to the coastal ranges of central and northern California, and more specifically to such plants that are suited to the ecology of the present or historic natural community in the project’s vicinity.

Noxious weed: Any weed designated by the weed control regulations in the Weed Control Act and identified on a regional district noxious weed control list.

Operating pressure: The pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

Overhead sprinkler irrigation system: A system that delivers water through the air (e.g., spray heads and rotors).

Overspray: Irrigation water that is delivered beyond the target area.

Plant factor: A number, which, when multiplied by reference evapotranspiration (ET_o), estimates the amount of water needed by plants. The plant factor ranges from 0.0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants. Plant factors are based on the “Water Use Classification of Landscape Species” (WUCOLS) publication.

Rain sensor or rain sensing shutoff device: A component that automatically suspends an irrigation event when it rains.

Recycled water: Treated wastewater, including reclaimed water or treated sewage effluent water of a quality suitable for non-potable uses including landscape irrigation and water

features. **Reference evapotranspiration (ET_o):** A standard measurement of environmental parameters that affect the water use of plants.

Rehabilitated landscape: Any re-landscaping project that requires an architectural and site approval, design review, grading permit, use permit, or a discretionary permit of any sort, or requires a new or expanded water service application.

Runoff: Water that is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.

Soil moisture sensor: A device that measures the amount of water in the soil. The device may also initiate or suspend irrigation.

Special landscape area (SLA): An area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

Sprinkler head: A device that delivers water through a nozzle.

Station: An area served by one valve or by a set of valves that operate simultaneously.

Turf: A ground cover surface consisting of non-native grass species that is customarily mowed. Annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue are examples of cool-season turf grasses. Bermuda grass, Kikuyu grass, seashore paspalum, St. Augustine grass, zoysia grass, and buffalo grass are warm-season turf grasses.

Valve: A device used to control the flow of water in the irrigation system.

Water feature: A landscape design element where open water performs an aesthetic or recreational function. Water features include ponds, fountains, lakes, waterfalls, artificial streams and any design elements where water is supplied artificially. Spas and swimming pools that are ancillary to single-family, two-family and multi-family residential uses also are considered water features.

Wet surface area: The surface area of that portion of a water feature that functions to contain water, such as the water surface of a swimming pool, spa, or garden pond. For a fountain or other feature with flowing water, wet surface area shall be measured as a two dimensional plane bounded by the perimeter of the area where water has been designed to flow.

Wildland urban interface: A geographic area identified by Chapter 16.74 of this Code to be at a significant risk from wildfires.

WUCOLS: The publication "Water Use Classification of Landscape Species" published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

14.15.040. Landscape Project Submittal

Unless otherwise specified, the following items shall be submitted to the Director of Community Development when a landscape project is subject to the requirements of this chapter.

- A. Water-Efficient Design Checklist (Appendix A) completed by a property owner or certified landscape professional.
- B. Landscape and Irrigation Design Plans (Appendix B) completed by a certified professional.
- C. Water Budget Calculations (Section 14.15.090), if necessary.
- D. Soil Analysis Report (Section 14.15.100), if necessary.

- E. Landscape and Irrigation Maintenance Schedule (Section 14.15.120).
- F. Landscape Installation Report (Section 14.15.110), following installation of landscaping materials and irrigation hardware.

14.15.050. Water-Efficient Design Elements

Projects set forth in Section 14.15.020 requiring a landscape project submittal shall comply with all applicable criteria of this section.

A. Plant Material:

All plant material shall be chosen and arranged per requirements in Table 14.15.050(A).

Table 14.15.050(A)

1 Options to demonstrate water efficiency		
a. i. Total turf area shall not exceed 25% of the landscape area, or 1,250 square feet, whichever is lesser in area and ii. At least 80% of the plants within non-turf areas shall be native or low water-use	OR	b. Prepare a water budget calculation, per the provisions of Section 14.15.060.

AND

2 Turf Restrictions	
a.	Turf shall not be planted on slopes greater than 25%.
b.	Turf areas shall not be less than eight feet wide.
3 Non-turf Restrictions	
a.	Plants shall be arranged appropriately based upon the site’s climate, slopes, sun exposure, soil characteristics, wildfire susceptibility and other site conditions appropriate for the selected plants.
b.	The horticultural attributes of plant species (e.g., mature plant size, invasive roots, and structural attributes) shall be considered, in order to minimize the potential for damage to property or infrastructure (e.g., buildings, septic systems, sidewalks, power lines).
c.	Fire-prone plant materials and highly flammable mulches are strongly discouraged. In areas designated wildland urban interface by Chapter 16.74 of this Code, plants shall be selected, arranged and maintained to provide defensible space for wildfire protection, in conformance with Public Resources Code Section 4291.
d.	Invasive plant species/noxious weeds:
i.	Installation shall be prohibited.
ii.	Existing within or adjacent to the proposed landscape area shall be removed prior to installation of new landscaping.
4	The architectural guidelines, conditions, covenants or restrictions of a common interest development shall not supersede this chapter by either prohibiting low water use plants, or including conditions that have the effect of restricting the use of low water use plants.

B. Hydrozones:

- 1. Plant materials of similar water use shall be grouped in hydrozones.
- 2. Mixed plant materials & hydrozoning: If plant materials of differing water uses are mixed, for purposes of preparing a water budget use Table 14.15.050(B).

Table 14.15.050 (B)

Mixed plant materials	Requirements
Low and moderate water use plants	Allowed. All plants classified as moderate water use for MAWA calculations.
High water use plants with low and moderate water use plants	Not allowed in any hydrozone.

C. Irrigation System:

The irrigation system proposed for any project shall meet the requirements outlined in Table 14.15.050 (C)

Table 14.15.050 (C)

Category	Requirements
Irrigation System	Shall meet all requirements per manufacturer's specifications and this table.
Design	Irrigation system and its related components shall be planned and designed to allow for proper installation, management and maintenance.
Dedicated Landscape Water Meter	Required for landscapes > 5,000 s.f., except single-family residential.
Automatic Irrigation Controllers	Required for irrigation scheduling, utilizing evapotranspiration or soil moisture sensor data.
Sensors	Integral or auxiliary, required to suspend or alter irrigation operation during unfavorable weather conditions.
Separate Valve	Required for each hydrozone. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers and turf.
Water Waste	Irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.
Type of Irrigation hardware	Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
Low-volume Irrigation	Required in mulched areas
	Required in areas with slope > 25%
	Required within 24 inches of a non-permeable surface
	Required in any narrow or irregularly shaped areas that are less than eight (8) feet in width in any direction.
Average Irrigation Efficiency	Systems shall be designed, maintained and managed to meet or exceed average landscape Irrigation efficiency of 70%.
Irrigation Times	Limited to between 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or renders irrigation unnecessary.
	Irrigation outside the normal designated window is allowed for auditing and system maintenance only.

D. Soil, conditioning, and mulching:

Soil, conditioning, and mulching requirements for all landscape projects are outlined in Table 14.15.050(D).

Table 14.15.050(D)

Type of soil amendment	Requirements
Topsoil	Minimum eight (8) inches, non-compacted topsoil shall be available for water absorption and root growth in planted areas.
	Minimum may be waived where a landscaped professional determines that practical limitations (e.g., slope and other geotechnical factors), necessitate a lesser soil depth that is viable for the chosen plant materials
Other amendments	Compost, fertilizer or other materials, shall be added according to the soil conditions at the project site and based on what is appropriate for the chosen plant materials.
Mulch	Minimum two (2) inch layer of mulch shall be applied on all exposed soil surfaces of planting areas.
	Not needed in areas of direct seeding application (e.g. hydro-seed)
Stabilizing mulching products	Required for use on slopes.

E. Water Features:

1. Recirculating water systems shall be used for all water features.
2. Water features are limited to 10% of the landscaped area unless a water budget is prepared.
3. All pools and spas shall have covers.
4. If water budget is prepared or required, use Table 14.15.050(E) for MAWA calculations.

Table 14.15.050(E): Water Features

% of landscape area	Water usage for MAWA calculation
Water features (including pools and spas) ≤ 10%	Medium
Water features (including pools and spas) > 10%	High

14.15.060. Water Budget Calculation

Project applicant may elect to submit a water budget calculation for the landscape project. A water budget must be completed by a certified professional who is authorized by the State of California to complete a water budget. Water budget calculations shall adhere to the following requirements:

- A. All special landscape areas shall be identified and their water use included in the water budget calculations.
- B. All other factors are as defined in Sections 14.15.030 and 14.15.060.
- C. Maximum applied water allowance shall be calculated for each project using the formulae outlined in Table 14.15.060: MAWA Calculation

Table 14.15.060: MAWA Calculation

1. For existing landscapes > 1 acre that have dedicated irrigation meters	$MAWA = (ET_o) (0.62) (LA) (0.8)$
2. For all new and rehabilitated landscapes	$MAWA = (ET_o) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$

Where:

MAWA = Maximum Applied Water Allowance (gallons per year)
ET_o = Reference Evapotranspiration (inches per year)
0.62 = Conversion Factor (acre-inches to gallons)
LA = Landscape Area (square feet)
0.7/0.8 = Reference Evapotranspiration Adjustment Factor (ETAF)
0.3 = Additional Water Allowance for SLA
SLA = Special Landscape Area (square feet)
All other factors as defined in Section 14.15.030 above.

- D. Estimated total water use (ETWU) shall be calculated for each hydrozone using the equation below. The sum of the ETWU calculated for all hydrozones shall not exceed the MAWA calculated using the formula above.

$$ETWU = (ET_o)(0.62) \left(\frac{PF * HA}{IE} + SLA \right)$$

Where:

ETWU = Estimated Total Water Use per year (gallons)
ET_o = Reference Evapotranspiration (inches)
0.62 = Conversion Factor
PF = Plant Factor from WUCOLS
HA = Hydrozone Area (square feet)
IE = Irrigation Efficiency (minimum 0.70)
SLA = Special Landscape Area (square feet)

14.15.070. Soil Analysis.

The Director of Community Development or his/her designee shall have discretion to require soil analysis as a condition of approval for any development permits, grading permit, or any type of discretionary permit, where a landscape project submittal is required.

A soil analysis report shall document the various characteristics of the soil (e.g. texture, infiltration rate, pH, soluble salt content, percent organic matter, etc), and provide recommendations for amendments as appropriate to optimize the productivity and water-efficiency of the soil.

The soil analysis report shall be made available to the professionals preparing the landscape and irrigation design plans in a timely manner either before or during the design process. A copy of the soils analysis report shall be submitted to the Director of Community Development as part of the landscape documentation package.

14.15.080. Landscape Installation Report

Landscape installation audit for new or rehabilitated landscapes shall be conducted by a certified landscape professional after the landscaping and irrigation system have been installed. The findings of the assessment shall be consolidated into a landscape installation report.

- A. The landscape installation report shall include, but is not limited to: inspection to confirm that the landscaping and irrigation system are installed as specified in the landscape and

irrigation design plan, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule.

- B. The landscape installation report shall include the following statement: "The landscape and irrigation system have been installed as specified in the landscape and irrigation design plan and complies with the criteria of the ordinance and the permit."
- C. Landscape Maintenance Agreement:
 - 1. Prior to final inspections and final occupancy, the owner(s) of the property shall enter into a formal written landscape maintenance agreement with the City. The City shall record this agreement, against the property or properties involved, with the County of Santa Clara Recorder's Office and it shall be binding on all subsequent owners of land served by the proposed landscape.
 - 2. The landscape maintenance agreement shall require that the installed landscape not be modified and that maintenance activities not alter the level of water efficiency of the landscape from its original design, unless approved by the City prior to the commencement of the proposed modification or maintenance activity.

14.15.090. Landscape and Irrigation Maintenance

Landscapes shall be maintained to ensure successful establishment following installation, and to ensure water use efficiency consistent with this chapter. A maintenance schedule shall be established and submitted to the Director of Community Development or his/her designee, either with the landscape application package, with the landscape installation report, or any time before the landscape installation report is submitted.

- A. Schedules should take into account water requirements for the plant establishment period and water requirements for established landscapes.
- B. Maintenance shall include, but not be limited to the following: routine inspection; pressure testing, adjustment and repair of the irrigation system; aerating and de-thatching turf areas; replenishing mulch; fertilizing; pruning; replanting of failed plants; weeding; pest control; and removing obstructions to emission devices.
- C. Failed plants shall be replaced with the same or functionally equivalent plants that may be size-adjusted as appropriate for the stage of growth of the overall installation. Failing plants shall either be replaced, or be revived through appropriate adjustments in water, nutrients, pest control or other factors as recommended by a landscaping professional.

14.15.100. Audit of Existing Landscapes Larger Than One Acre

The Director of Public Works may require audits to evaluate water use on existing landscapes larger than one acre (installed prior to January 1, 2010). The City shall adopt reasonable rules and regulations on the process for determining what constitutes existing landscaping larger than one acre. Such audits may also be initiated as a coordinated effort between the City and, the Santa Clara Valley Water District or the City's water purveyors. This audit must be completed by a certified landscape irrigation auditor.

Following the findings and recommendations of the certified landscape irrigation auditor, the Director of Public Works may require adjustments to irrigation usage, irrigation hardware, and/or landscape materials to reduce irrigation water use.

Landscape renovation or rehabilitation resulting from an audit shall be considered a landscape project, and shall be subject to applicable Section 14.15.040 and Table 14.15.060(C)(1).

14.15.110. Public Education

- A. The City may provide information, with assistance from the Santa Clara Valley Water District and its water purveyors, to all applicants regarding the design, installation, management and maintenance of water-efficient landscapes and irrigation systems.
- B. All model homes that are landscaped shall have signs installed that provide information on the principles of water-efficient landscaping.

14.15.120. Penalties

Non-compliance with any applicable provision of this chapter shall be subject to enforcement action, as provided in Chapter 1.10 and/or Chapter 1.12 of this Code



CUPERTINO

LANDSCAPE WATER-EFFICIENCY CHECKLIST

Community Development Department
10300 Torre Avenue
Cupertino, CA 95014

408.777.3308/Fax 408.777.3333
planning@cupertino.org
http://cupertino.org/planning

Applicant Name: _____

Email: _____

Project Site Address: _____

Phone: _____

Total Landscape Area (square feet):

Turf Area:

Non-Turf Plant Area:

Special Landscape Area:

Water Feature Wet Surface Area:
If > 10% of landscaped area, water budget calculation required with landscape project submittal.

Landscape area: All the planting areas, turf areas, and water features in a landscape installation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing wildland vegetation).

Turf: A ground cover surface consisting of non-native grass species that is customarily mowed. Annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue are examples of cool-season turf grasses. Bermuda grass, kikuyu grass, seashore paspalum, St. Augustine grass, zoysia grass, and buffalo grass are warm-season turf grasses.

See reverse side for other definitions.

NOTE: If landscape area exceeds 2,500 sq. ft., a landscape project submittal shall be required. If no landscaping is proposed, enter "0" above and proceed directly to the signature block at the bottom of this form.

Landscape Parameter	Requirements	Project Compliance
Turf	Total turf area shall not exceed 25% of the landscape area, or 1,250 square feet, whichever is lesser in area.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Water budget calculation required with landscape project submittal]
	All portions of turf areas shall be wider than eight (8) feet.	<input type="checkbox"/> Yes
	Turf (if utilized) is limited to slopes not exceeding 15%.	<input type="checkbox"/> Yes
Non-Turf	At least 80% of non-turf area shall consist of native or low water use plants.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Water budget calculation required with landscape project submittal]
Hydrozones	Plants with similar water needs shall be grouped within hydrozones. Each hydrozone shall be controlled by a separate valve.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Provide explanation on back]
Irrigation System	Systems shall be designed and maintained to minimize water waste (e.g., runoff, low head drainage, overspray). Low-volume irrigation shall be utilized in non-turf areas. Irrigation shall only occur between the hours of 8:00 pm and 10:00 am.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Provide explanation on back]
Soil	A minimum of eight (8) inches of non-compacted topsoil shall be available in planted areas.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Provide explanation on back]
	Soil amendments, such as compost or fertilizer, shall be appropriately added according to the soil conditions at the project site and based on what is appropriate for the selected plants.	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Provide explanation on back]
Mulch	A minimum two (2)-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas, except in areas of direct seeding application (e.g. hydro-seed).	<input type="checkbox"/> Yes <input type="checkbox"/> No [If no, Provide explanation on back]

I am aware of available informational resources regarding native and low water use plants, irrigation efficiency, and other aspects of water-efficient landscaping. I certify that the information provided on this checklist is correct, and the installed landscape complies with the requirements of Chapter 14.15. I also understand that any changes to the project will necessitate a new checklist.

Signature of property owner or authorized representative

Date

This checklist implements the requirements of Chapter 14.15, Landscape Ordinance, of the Cupertino Municipal Code. The responses provided will be evaluated to determine whether the proposed landscape is generally consistent with the ordinance's water-efficiency goals.

Applicant Comments

Use additional paper if necessary

<p>Staff Evaluation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Not Approved</p>	<p>Staff Comments</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Signature Date</p>
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Select Definitions

Hydrozone: A portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

Low-volume irrigation: The application of irrigation water through a system of tubing or lateral lines and low-volume emitters such as drip and bubblers. Certain rotary emitters designed for highly efficient water distribution, and situated to irrigate low water use plants, may also be included in this definition at the discretion of the Planning Office.

Low water use plant: A plant species whose demonstrated water needs are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established. Any species classified as "very low water use" and "low water use" by WUCOLS, having a regionally adjusted plant factor of 0.0 through 0.3, shall be categorically deemed a low water use plant.

Native plant: A plant indigenous to a specific area of consideration. For the purpose of this division, the term will refer to plants indigenous to the coastal ranges of Central and Northern California, and more specifically to such plants that are suited to the ecology of the present or historic natural community of the project's vicinity.

Special landscape area: An area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

Turf: A ground cover surface consisting of non-native grass species that is customarily mowed. Annual bluegrass, Kentucky bluegrass, perennial ryegrass, red fescue, and tall fescue are examples of cool-season turf grasses. Bermuda grass, kikuyu grass, seashore paspalum, St. Augustine grass, zoysia grass, and buffalo grass are warm-season turf grasses.

Water feature: A landscape design element where open water performs an aesthetic or recreational function. Water features include ponds, fountains, waterfalls and artificial streams. Also includes spas and swimming pools that are ancillary to single-family, two-family and multi-family residential uses.

Wet surface area: The surface area of that portion of a water feature that functions to contain water, such as the water surface of a swimming pool, spa, or garden pond. For a fountain or other feature with flowing water, wet surface area shall be measured as a two dimensional plane bounded by the perimeter of the area where water has been designed to flow.

APPENDIX B – LANDSCAPE AND IRRIGATION PLANS

The landscape and irrigation design plan shall be prepared as follows:

- A. The landscape and irrigation design plans shall incorporate all applicable elements of Section 14.15.050 of Chapter 14.15 of the Cupertino Municipal Code.
- B. The landscape design portion shall be prepared by, and bear the signature of, a licensed landscape architect, licensed landscape contractor, or any other person authorized by the State of California to design a landscape.
- C. The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized by the State of California to design an irrigation system.
- D. The landscape design portion of the landscape and irrigation design plan, at a minimum, shall:
 1. Provide basic project information, such as applicant name, site address, total landscape area and turf area (square feet), irrigation water source (e.g. municipal, well, recycled), retail water purveyor (if applicable), and project contacts.
 2. Identify, in tabular form, all plants to be installed as part of the project. The table shall include the following:
 - i. Symbol (representing the plant on the plan).
 - ii. Common name.
 - iii. Botanical name.
 - iv. Container size.
 - v. Quantity.
 - vi. Type (e.g. grass, forb, succulent, vine, shrub, tree).
 - vii. Water-efficient species identification. All “native” and “low water use” plant species (defined in Section 14.15.030) shall be so labeled.
 - viii. Unique physical specifications of plants (e.g., bare-root, field-potted, multi-trunk), if applicable.
 3. Include the following:
 - i. General notes, planting notes, plant layout based on size at maturity, species, and symbol legend.
 - ii. Spacing of proposed plantings.
 - iii. Topography
 - iv. Trunk diameter of all existing trees whose trunk circumference is greater than 18.5 inches, measured 54 inches above grade.
 - v. Existing features to remain, such as trees, fencing, hardscape, etc.
 - vi. Existing features to be removed.
 - vii. Identification of pertinent site factors such as sun exposure, microclimate, property lines, buildings, underground/above-ground utilities, existing drainage features, etc.
 - viii. Proposed grading. See Section 16.08 of the Cupertino Municipal Code for the requirements of when a grading permit is required.
 - ix. Seed mix, if applicable.
 4. Delineate and label each hydrozone;

5. Identify each hydrozone as low water, moderate water, high water, or mixed (low/moderate) water use, as defined by WUCOLS;
 6. Identify special landscape areas;
 7. Identify type of mulch and application depth;
 8. Identify type and wet surface area of water features;
 9. Identify hardscapes (pervious and non-pervious); and
 10. Contain the following statement: "I have complied with the criteria of the Water Conservation in Landscaping Ordinance and applied them for the efficient use of water in the landscape design plan."
- E. The irrigation design portion of the landscape and irrigation design plan, at a minimum, shall contain:
1. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;
 2. Static water pressure at the point of connection to the public water supply;
 3. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
 4. Irrigation schedule;
 5. Location and size of separate water meters for landscape (if applicable); and,
 6. The following statement: "I have complied with the criteria of the Water Conservation in Landscaping Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."
- F. **Grading.** If the landscape project area will be graded, then, at a minimum, grading contours and quantities shall be shown on the landscape design plan. Grading shall meet all applicable requirements of Chapter 16.08 of the Cupertino Municipal Code, including permitting requirements for grading in excess of established permit thresholds.
- A geotechnical engineer should be consulted prior to the installation of landscaping materials and irrigation hardware on slopes greater than 30%, or in any areas where slope stability may be compromised.
- G. **Wildfire Management.** Plant list shall exclude plant types that increase wildfire susceptibility. In areas designated wildland urban interface, by Chapter 16.74 of the Cupertino Municipal Code, the plan shall demonstrate that plants have been selected and arranged to provide defensible space for wildfire protection, in conformance with Public Resources Code Section 4291.
- H. **Storm Water Management.** Storm water best management practices shall be incorporated as appropriate into the landscape installation, the details of which shall be shown on the landscape design plan. Installation shall be subject to the San Francisco Bay Region's National Pollutant Discharge Elimination System (NPDES) storm water discharge permit requirements and Chapter 9.18 of the Cupertino Municipal Code.