DRAFT Ordinance No. 16.XXXX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CUPERTINO MODIFYING THE EXISTING CHAPTER 14.15 OF THE CUPERTINO MUNICIPAL CODE, LANDSCAPING 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" modifies the current Chapter 14.15 entitled "Landscape Ordinance" 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.

Section 6. *CEQA*. This ordinance is categorically exempt from CEQA pursuant to Section 15308 (actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment); and Section 15061 (b)(3) (CEQA applies only to projects which have the potential of causing a significant effect on the environment, and that where, as here, it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA).

INTRODUCED at a regular meeting of the Cupertino City Council the ____ day of _____ 2016 and **ENACTED** at a regular meeting of the Cupertino City Council on this ____ of _____ 2016 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Chapter 14.15

LANDSCAPE ORDINANCE

Section

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 construction in R1, RHS or A1 zones	≤500 s.f.	Prescriptive Compliance Application (Appendix A) - Informational ONLY

	> 500 s.f. and< 2,500 s.f.	Prescriptive Compliance Application (Appendix A) or Landscape Documentation Package
	≥ 2,500 s.f.	Landscape Documentation Package- Sec. 0
Development Permit or Grading Permit		
New construction in R1, RHS, A1 or R2 Zones	≤ 500 s.f.	Prescriptive Compliance Application (Appendix A) - Informational ONLY
	> 500 s.f. and < 2,500 s.f.	Prescriptive Compliance Application (Appendix A) or Landscape Documentation Package
	≥ 2,500 s.f.	Landscape Documentation Package - Sec. 0
New Construction within commercial, industrial, office, multi-family residential, public and institutional project	≤ 500 s.f.	Prescriptive Compliance Application - Appendix A - Required
	> 500 s.f.	Landscape Documentation Package - Sec. 14.15.040
Any landscape installation or rehabilitation project	≤ 2,500 s.f.	Prescriptive Compliance Application - Appendix A - Required
	> 2,500 s.f.	Landscape Documentation Package - Sec. 14.15.040
New and rehabilitated cemeteries	> 0 s.f.	Water Budget Calculations - Sec. E 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. E 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 Landscape Documentation Package.

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

1. New or rehabilitated landscapes that do not require a building or planning permit;
2. Rehabilitated landscapes with areas less than or equal to 2,500 square feet;
3. New landscapes with areas less than five hundred square feet;
4. Registered local, state or federal historical sites where landscaping establishes an historical landscape style, as determined by the City Council;
5. Surface mine reclamation projects that do not require a permanent irrigation system;
6. Ecological restoration projects that do not require a permanent irrigation system;
7. Community gardens or plant collections, as part of botanical gardens and arboretums open to the public; or
8. 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: A timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self-adjust and 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.

Certificate of Completion: The document required under CA Govt. Code Section 492.9

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.

C**ertified 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.

Compost: The safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

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

Distribution uniformity: The measure of the uniformity of irrigation water a defined area.

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. Native habitat mitigation areas and trees may need three to five years for establishment.

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 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency. The ETAF for new and existing (non-rehabilitated) **Special Landscape Areas** shall not exceed 1.0. The 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.

Flow sensor: An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valces. This combination flow sensor/controller may also function as a landscape water meter or submter.

Friable: A soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

Fuel Modification Plan Guideline: The guidelines from a local fire authority to assist residents and businesses that are developeing land or building structures in a fire hazard severity zone.

Graywater: A untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes,and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. Graywater includes, but is not limited to, wasterwater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Refer to Health and Safety Code Section 17922.12.

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.

High water use plant: A plant species whose demonstrated water needs are incompatible with local climate and soil conditions such that regular supplemental irrigation is required. Species classified "high water use" by "Water Use Classification of Landscape Species" (WUCOLS), having a regionally adjusted plant factor of 0.7 through 1.0, shall be considered high water use plants. High water use plants are prohibited in street medians.

Hydrozone: A portion of the landscaped area having plants with similar water needs and rooting depth. 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) and the USDA invasive and noxious weeds database, 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. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "Watersense" labeled auditing program.

Irrigation efficiency (IE): The measurement of the amount of water beneficially used divided by the amount of water applied. The irrigation efficiency for purposes of this Chapter is 75% for overhead spray devices and 81% for drip systems.

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.

Landscape Documentation Package: The documents required under Section CA Gov't Code 492.3

Landscape water meter: An inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use. A landscape water meter may either be a customer service meter dedicated to landscape use provided by the local water purveyor or a privately owned meter or submeter.

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.

Master shut-off valve: An automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.

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, or 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.

New construction: A new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building, for the purpose of this ordinance.

Non-residential landscape: Landscapes in commercial, institutional, industrial or public settings that may have areas designated for recreation or public safety assembly. It also includes portions of common areas of common interest developments with designated recreational areas.

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

Overhead sprinkler irrigation system or overhead spray 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 (ETo), estimates the amount of water needed by plants. The plant factor ranges from 0.0 to 0.1 for very low water use plants, 0.1 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. Plant factors may also be obtained from horticultural researchers from academic insitutions or professional associations as approved by the California Department of Water Resources (DWR).

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** (ETo): 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, recreation areas, areas irrigated with recycled water, or water features using recycled water.

Sprinkler head or spray 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.

Submeter: A metering device to measure water applied to the landscape that is installed after the primary utility water meter.

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, and the Department of Water Resources 2014.

14.15.040. Prescriptive Compliance Option (Appendix A)

14.15.050. Landscape Documentation Package

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, prior to final permit issuance.

A. Water-Efficient Landscape Worksheet (Appendix B) completed by a certified landscape professional.
B. Landscape, Irrigation, and Grading Design Plans (Appendix C) completed by a certified professional.
C. Soil Management Report (Section 14.15.070), if necessary.

The following items shall be submitted to the Director of Community Development when a landscape project is subject to the requirements of this chapter, prior to final inspection

A. Certificate of Completion (Appendix __)
B. Certificate of Installation, (Section 14.15.080), following installation of landscaping materials and irrigation hardware. (Appendix __)
C. Irrigation Schedule
D. Landscape and Irrigation Maintenance Schedule (Section 14.15.090).

E. Irrigation Audit Report

14.15.060. Water-Efficient Design Elements

Projects set forth in Section 14.15.020 requiring a Landscape Documentation Package 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 E.
AND					
2	**Turf Restrictions**				
	a.	Total turf area shall not exceed 25% of the landscape area, or 1,250 square feet, whichever is lesser in area.			
	b.	Turf shall not be planted on slopes greater than 25%.			
	c.	Turf areas shall not be less than ten (10) feet wide.			
3	**Non-turf Restrictions**				
	a.	At least 80% of the plants within non-turf areas shall be native or low water-use.			
	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	Not allowed in any hydrozone.

use plants	

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: a) All non-residential irrigated landscapes of 1,000 s.f. – 5,000 s.f. All residential irrigated landscapes equal ≥ 5,000 s.f.
Automatic Irrigation Controllers	Required for irrigation scheduling, utilizing evapotranspiration or soil moisture sensor data utilizing non-volatile memory
Pressure regulator	A pressure regulating device is required if the water pressure is below or exceeds the recommended pressure of the specified irrigation devices.
Sensors	a. Integral or auxiliary, required to suspend or alter irrigation operation during unfavorable weather conditions. b. Flow sensors that detect high flow conditions due to system damage or malfunction are required: for all non-residential landscapes and residential landscapes ≥ 5,000 s.f.
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 shall be selected based on a distribution uniformity low quarter of 0.65 or higher using the protocol defined in American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscaped Irrigation Sprinkler and Emitter Standard.
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 ten (10) 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 unnecesary.
	Irrigation outside the normal designated window is allowed for auditing and system maintenance only.

D. **Soil Preparation:**

Type of soil amendment/conditioning	**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
Compacted soils	Compacted soils shall be transformed to a friable condition prior to the planting of any materials. On engineered slopes, only amended planting holes need to meet this requirement.
Compost	Compost needs to be applied at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.
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 three (3) inch layer of mulch shall be applied on all exposed soil surfaces of planting areas.
	Organic mulch materials made from recycled or post-consumer shall take precedence over inorganic materials or virgin forest products
	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. All pools and spas shall have covers.
3. Water features are limited to 10% of the landscaped area unless a water budget is prepared.
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

14.15.070. 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, especially where large mass scale grading is anticipated where a landscape project submittal is required. In projects with multiple landscape installations (i.e. production home developments) a soil sampling rater of 1 in 7 lots or approximately 15% will satisfy this requirement. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots.

A soil analysis report shall document the various characteristics of the soil (e.g. soil 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 Documentation 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. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
C. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.
D. 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.

E. 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 0 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.
   1. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per the local ordinance; specify who designed and installed the water efficient landscape; and demonstrate low water use approaches to landscaping such as using native plants, graywater systems, and rainwater catchment systems.
   2. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

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

14.15.130. Recycled Water

A. The installation of recycled water irrigation systems shall allow for the current and future use of recycled water.
B. All recycled water irrigations systems shall be designed and operated in accordance with all applicable local and State laws.

C. Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

14.15.140. Graywater Systems

A. Graywater systems promote the efficient use of water and are encourages to assist in on-site landscape irrigation. All graywater systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any applicable local ordinance standards. Refer to Applicability Section for the applicability of this ordinance to landscape areas less than 2,500 square feet with the Estimated Total Water Use met entirely by graywater.

APPENDIX A – PRESCRIPTIVE COMPLIANCE OPTION (3 PAGES)

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

Landscape Parameter	Requirements	Compliance
IRRIGATION SYSTEM	Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.	☐ YES
	Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close to possible to the point of connection of the water supply.	☐ YES
	All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.	☐ YES
	Dedicated irrigation meters are required for non-residential projects with more than 1,000 sq. ft. of landscape area.	☐ YES
WATER FEATURES ☐ pool ☐ fountain ☐ _____ ☐ no water features	Pool and spa covers shall be installed.	☐ YES
	Recirculating water systems shall be used for all water features.	☐ YES
	Water features are limited to 10% of the landscaped area, unless a water budget is prepared.	☐ YES

PART 4: FINAL INSPECTION & DOCUMENTATION

Document Name	Requirements	Compliance
CERTIFICATE OF COMPLETION	The Certificate is signed by the property owner stating they received copies of all documents required within the Prescriptive Compliance Option and that it is their responsibility to maintain the landscape in accordance with the Landscape and Irrigation Maintenance Schedule.	☐ YES
CERTIFICATE OF INSTALLATION	The Certificate is certified by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the requirements of the Landscape Water-Efficiency Checklist.	☐ YES
IRRIGATION SCHEDULE	The irrigation schedule shall include, but not limited to, irrigation parameters for plant establishment periods, irrigation intervals, irrigation run times, etc (per CMC Section XXXX).	☐ YES
LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE	The regular maintenance schedule shall include, but not limited to, routine inspection, adjustment and repair of the irrigation system, replenishing with compost and mulch, fertilizing, pruning, and weeding in all landscape areas (per CMC Section XXXX).	☐ YES

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 _____

SIGNATURE OF LICENSED/CERTIFIED LANDSCAPE PROFESSIONAL _____ DATE _____

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PRESCRIPTIVE COMPLIANCE CERTIFICATION

Community Development Department
10300 Torre Avenue
Cupertino, CA 95014

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

CUPERTINO

CERTIFICATE OF COMPLETION

PROPERTY OWNER NAME	E-MAIL
PROPERTY OWNER ADDRESS	PHONE

I/we certify that I/we have received copies of all the documents within the Prescriptive Compliance Option and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

SIGNATURE OF PROPERTY OWNER _____ DATE _____

CERTIFICATE OF INSTALLATION

COMPANY		
ADDRESS		
NAME		PROFESSIONAL SEAL
TITLE	LIC. /CERT.#	
E-MAIL	PHONE	

I/we certify that based upon periodic site observations, the work has been completed in accordance with the Landscape Ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the Prescriptive Compliance Option and provided landscape and irrigation plans.

SIGNATURE OF LICENSED/CERTIFIED LANDSCAPE PROFESSIONAL _____ DATE _____

Document Name	Requirements	Compliance
CERTIFICATE OF COMPLETION	The Certificate is signed by the property owner stating they received copies of all documents required within the Prescriptive Compliance Option and that it is their responsibility to maintain the landscape in accordance with the Landscape and Irrigation Maintenance Schedule.	☐ YES
CERTIFICATE OF INSTALLATION	The Certificate is certified by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the requirements of the Landscape Water-Efficiency Checklist.	☐ YES
IRRIGATION SCHEDULE	The irrigation schedule shall include, but not limited to, irrigation parameters for plant establishment periods, irrigation intervals, irrigation run times, etc (per CMC Section XXXX).	☐ YES
LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE	The regular maintenance schedule shall include, but not limited to, routine inspection, adjustment and repair of the irrigation system, replenishing with compost and mulch, fertilizing, pruning, and weeding in all landscape areas (per CMC Section XXXX).	☐ YES

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 14.15.060 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 Protected trees as defined in Chapter 14.15 of the Cupertino Municipal Code.
    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 (areas permanently and solely dedicated to edible plants, areas irrigated with recycled water;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.

1. ~~Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site rainwater retention and infiltration are encouraged.~~ It is strongly recommended that landscape areas be designed for capture and infiltration capacity that is sufficient to prevent runoff from impervious surfaces (i.e. roof and paved areas) from either: the one inch, 24-hour rain event or (2) the 85th percentile, 24-hour rain event, and/or additional capacity as required by any applicable local, regional, state or federal regulation

2. ~~Project applicants shall refer to the local agency or Regional Water Quality Control Board for information on any applicable stormwater technical requirements.~~

3. All planted landscape areas are required to have friable soil to maximize water retention and infiltration. Refer to § 492.6(a)(3).

4. .

Prescriptive Compliance Option

A. This appendix contains prescriptive requirements which may be used as a compliance option to the Model Water Efficient Landscape Ordinance.

B. Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:

   1. Submit a Landscape Documentation Package which shall include date, project applicant, project address, and APN, total landscape area (square feet), including a breakdown of turf and plant material, project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed), water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well, project contact, applicant signature and date with statement " I agree to comply with the requirements of the prescriptive compliance option to the MWELO.

   2. Incorporate compost rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra-indicated by a soil test)

   3. Plant material shall comply with all the following:

      a. For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water;

      b. A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

   4. Turf shall comply with all the following:

a. Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non-residential areas

b. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;

c. Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by sub-surface irrigation or by other technology that creates no overspray or runoff.

5. Irrigation systems shall comply with the following:

a. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.

b. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.

c. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.

d. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.

e. All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard," All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

f. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

6. For non-residential projects with landscape areas of 1,000 s.f. or more, a private submeter(s) to measure landscape water use shall be installed.

C. At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.