

ORDINANCE NO. 16-2142

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CUPERTINO TO REPEAL CHAPTER 14.15 OF THE CUPERTINO MUNICIPAL CODE ENTITLED "LANDSCAPING ORDINANCE" AND REPLACE IT WITH A NEW CHAPTER 14.15 ENTITLED "LANDSCAPE ORDINANCE" IN ORDER TO IMPROVE READABILITY AND TO COMPLY WITH STATE-MANDATED UPDATES TO THE MODEL WATER-EFFICIENT LANDSCAPE ORDINANCE.

WHEREAS, this Ordinance is determined to be categorically exempt from the requirements of the California Quality Act of 1970, together with related State CEQA Guidelines (collectively, "CEQA") in that it is action taken by a regulatory agency, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment (Section 15308) or is exempt under CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility of a significant effect on the environment; and

WHEREAS, the City Council is the decision-making body for this Ordinance; and

WHEREAS, the City Council before taking action on this Ordinance has reviewed the exemptions, and using its independent judgment, determines the Ordinance to be exempt from CEQA as stated above;

NOW, THEREFORE, THE CITY COUNCIL OF THE OF CITY OF CUPERTINO DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. *Statement of Purpose.* This ordinance establishes new water-efficient landscaping and irrigation requirements as State-mandated.

Section 2. *Code Amendment.* Chapter 14.15 of Title 14 of the Cupertino Municipal Code entitled "Landscaping Ordinance" is repealed in its entirety and replaced with Chapter 14.15 entitled "Landscape Ordinance" of the Cupertino Municipal Code to be numbered and entitled to read as shown in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 15th day of March, 2016 and **ENACTED** at a regular meeting of the Cupertino City Council on this 5th of April, 2016 by the following vote:

Vote Members of the City Council

AYES: Chang, Vaidhyanathan, Paul, Sinks, Wong

NOES: None

ABSENT: None

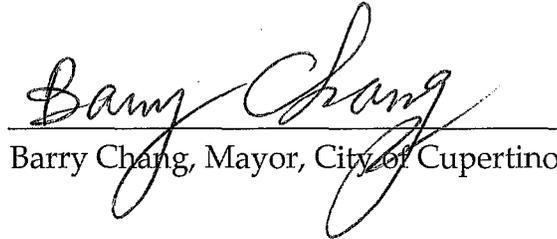
ABSTAIN: None

ATTEST:

APPROVED:



Grace Schmidt, City Clerk



Barry Chang, Mayor, City of Cupertino

ATTACHMENT "A"

Chapter 14.15

LANDSCAPE ORDINANCE

Section

- 14.15.010. Intent.**
- 14.15.020. Applicability.**
- 14.15.030. Definitions.**
- 14.15.040. Prescriptive Compliance Option.**
- 14.15.050. Landscape Documentation Package.**
- 14.15.060. Water-Efficient Design Elements.**
- 14.15.070. Water Budget Calculation.**
- 14.15.080. Soil Analysis.**
- 14.15.090. Recycled Water.**
- 14.15.100. Graywater Systems.**
- 14.15.110. Irrigation Schedule.**
- 14.15.120. Landscape and Irrigation Maintenance Schedule.**
- 14.15.130. Landscape and Irrigation Installation Report.**
- 14.15.140. Landscape Maintenance Agreement.**
- 14.15.150. Audit of Existing Landscapes Larger Than One Acre.**
- 14.15.160. Public Education.**
- 14.15.170. Local Agency Reporting.**
- 14.15.180. Penalties.**

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.

14.15.020. Applicability.

A. The provisions of this chapter shall apply to:

1. Projects that require a building permit, or planning permit, or grading permit, as identified in Table 14.15.020.

Table 14.15.020

<i>Type of Project</i>	<i>Total Landscape Area</i>	<i>Requirement</i>
Building Permits		
New home in R1, RHS, A1 or R2 Zones	< 500 s.f.	Prescriptive Compliance Application (Appendix A) - Informational only
	500 s.f. - 2,500 s.f.	Prescriptive Compliance Application (Appendix A) or Landscape Documentation Package (Sec. 14.15.050)
	> 2,500 s.f.	Landscape Documentation Package (Sec. 14.15.050)
Planning Permit or Grading Permit		
New home in R1, RHS, A1 or R2 Zones	< 500 s.f.	Prescriptive Compliance Application (Appendix A) - Informational only
	500 s.f. - 2,500 s.f.	Prescriptive Compliance Application (Appendix A) or Landscape Documentation Package (Sec. 14.15.050)
	> 2,500 s.f.	Landscape Documentation Package (Sec. 14.15.050)
Commercial, industrial, office, multi-family residential, public and institutional projects	≤ 2,500 s.f.	Prescriptive Compliance Application (Appendix A) or Landscape Documentation Package (Sec. 14.15.050)
	> 2,500 s.f.	Landscape Documentation Package (Sec. 14.15.050)
Any landscape installation or rehabilitation project	≤ 2,500 s.f.	Prescriptive Compliance Application (Appendix A) - Required
	>2,500 s.f.	Landscape Documentation Package (Sec. 14.15.050)
New and rehabilitated cemeteries	> 0 s.f.	Water Budget Worksheet (Appendix B) Landscape and Irrigation Maintenance Schedule (Sec. 14.15.120) Landscape Installation Report (Sec. 14.15.130)
Existing and established landscapes, including cemeteries	> 1 acre	Water Budget Worksheet (Appendix B) Audit of Established Landscapes (Sec. 14.15.150)

2. Projects with landscape areas less than 2,500 square feet using graywater or on-site rainwater capture to entirely meet the landscape water requirement (Estimated Total

Water Use) of the lot is subject only to the irrigation system requirements in the Prescriptive Compliance Option (Appendix A).

3. The City may require a Landscape Documentation Package and/or other documents deemed necessary for 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 geohazard areas near riparian corridors, creeks and or/waterways.
- B. The provisions of this chapter shall not apply to:
1. New or rehabilitated landscapes that do not require a building permit or planning permit;
 2. New landscapes that require a building or planning permit with areas less than five hundred square feet;
 3. Registered local, state or federal historical sites where landscaping establishes a historical landscape style, as determined by the City Council;
 4. Surface mine reclamation projects that do not require a permanent irrigation system;
 5. Ecological restoration projects that do not require a permanent irrigation system;
 6. Community gardens or plant collections, as part of botanical gardens and arboretums open to the public; or
 7. 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 as part of the Landscape Documentation Package, Prescriptive Compliance Option, and listed as Appendix C.

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.

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 Appendix B.

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 valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.

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 developing 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, wastewater 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 14.15.050.

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 Appendix B.

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.

Planning Permit: Any permit as defined in Cupertino Municipal Code, Chapter 19.08, for the purpose of this ordinance.

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 0.1 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 institutions 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 (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, 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.

Unless otherwise specified, the following prescriptive requirements shall be submitted to the Director of Community Development when a landscape project is subject to the requirements of the prescriptive compliance option, prior to final permit issuance.

- A. Water-Efficient Landscape Checklist (Appendix A)
- B. Landscape Design Plans
- C. Irrigation Plans

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

- D. Certificate of Completion and Certificate of Installation, following installation of landscaping materials and irrigation hardware (Appendix C)
- E. Irrigation Schedule (Section 14.15.110)
- F. Landscape and Irrigation Maintenance Schedule (Section 14.15.120)
- G. Landscape Maintenance Agreement (Section 14.15.140)

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 Checklist (Appendix A)
- B. Water Budget Calculations (Appendix B) completed by a certified landscape professional
- C. Landscape, Irrigation, and Grading Design Plans (Appendix D) completed by a certified professional
- D. Soil Management Report (Section 14.15.080), 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

- E. Certificate of Completion and Certificate of Installation, following installation of landscaping materials and irrigation hardware (Appendix C)
- F. Irrigation Schedule (Section 14.15.110)
- G. Landscape and Irrigation Maintenance Schedule (Section 14.15.120)
- H. Landscape and Irrigation Installation Report (Section 14.15.130)
- I. Landscape Maintenance Agreement (Section 14.15.140)

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 14.15.060(A).

Table 14.15.060(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	OR	b. Prepare a water budget calculation, per the provisions of Section 14.15.070.
		ii. At least 80% of the plants within non-turf areas shall be native or low water-use		
AND				
2	Turf Restrictions			
	a.	Turf shall not be planted on slopes greater than 25%.		
	b.	Turf areas shall not be less than ten (10) 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 14.15.060(B).

Table 14.15.060 (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 14.15.060 (C)

Table 14.15.060 (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 \geq 1,000 s.f. b) All residential irrigated landscapes \geq 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	<ul style="list-style-type: none"> 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 $\geq 5,000$ 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 unnecessary.
	Irrigation outside the normal designated window is allowed for auditing and system maintenance only.

D. Soil Preparation:

The proposed project shall incorporate soil preparation to meet the requirements outlined in Table 14.15.060 (D)

Table 14.15.060(D)

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 14.15.070(E) for MAWA calculations.

Table 14.15.060(E)

% 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. 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 (Appendix B).
- B. All other factors are as defined in Sections 14.15.030, 14.15.070, and Appendix B.
- C. Maximum applied water allowance shall be calculated for each project using the formulae outlined in Table 14.15.070: MAWA Calculation.

Table 14.15.070: MAWA Calculation

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

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)
- 0.55 = Reference Evapotranspiration Adjustment Factor (ETAF)
for residential areas
- 0.45 = Reference Evapotranspiration Adjustment Factor (ETAF)
for non-residential areas
- 1-ETAF = Additional Water Allowance for SLA
- SLA = Special Landscape Area (square feet)

- 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.

$$ETWU = (ET_o)(0.62)(ETAF)(Area)$$

Where:

- ETWU = Estimated Total Water Use per year (gallons)
- ET_o = Reference Evapotranspiration (inches)
- 0.62 = Conversion Factor
- Area = Total Landscape Area (square feet)

14.15.080. 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 planning permits, grading permit, or any type of discretionary permit, especially where large mass scale grading is anticipated. In projects with multiple landscape installations (i.e. production home developments) a soil sampling at a rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

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.

14.15.090. 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.

14.15.100. Graywater Systems.

- A. Graywater systems promote the efficient use of water and are encouraged 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 Section 14.15.020 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.

14.15.110. Irrigation Schedule.

- A. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:
 - 1. Irrigation scheduling shall be regulated by automatic irrigation controllers.
 - 2. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
 - 3. For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.
 - 4. Parameters used to set the automatic controller shall be developed and submitted for each of the following:
 - a. the plant establishment period;
 - b. the established landscape; and
 - c. temporarily irrigated areas.
 - 5. Each irrigation schedule shall consider for each station all of the following that apply:
 - a. irrigation interval (days between irrigation);
 - b. irrigation run times (hours or minutes per irrigation event to avoid runoff);
 - c. number of cycle starts required for each irrigation event to avoid runoff;
 - d. amount of applied water scheduled to be applied on a monthly basis;
 - e. application rate setting;
 - f. root depth setting;
 - g. plant type setting;
 - h. soil type;

- i. slope factor setting;
- j. shade factor setting; and
- k. irrigation uniformity or efficiency setting.

14.15.120. Landscape and Irrigation Maintenance Schedule.

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. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.
- C. 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.
- D. 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.

14.15.130. Landscape and Irrigation 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."

14.15.140. Landscape Maintenance Agreement.

- A. 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.

- B. 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.

14.15.150. 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 Section 14.15.050 and Table 14.15.070(C)(1).

14.15.160. 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.

14.15.170. Local Agency Reporting.

Local agencies responsible for administering individual ordinances shall report on their updated ordinance to the Department of Water Resources. Annual reports will be due by January 31st of each year and shall address the requirements as listed in California Code of Regulations Title 23, Division 2, Chapter 2.7, Section 495.

14.15.180. 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.

APPENDIX A – WATER-EFFICIENT LANDSCAPE CHECKLIST

		<h2 style="text-align: center;">WATER-EFFICIENT LANDSCAPE CHECKLIST</h2>	
Community Development Department 10300 Torre Avenue Cupertino, CA 95014		408.777.3308 / Fax 408.777.3333 planning@cupertino.org http://cupertino.org/planning	
PART 1: CERTIFIED/LICENSED PROFESSIONAL INFORMATION			
COMPANY & COMPANY ADDRESS		PROFESSIONAL SEAL	
NAME	LIC. /CERT.#		
E-MAIL	PHONE		
PART 2: PROPERTY & PROPERTY OWNER INFORMATION			
PROPERTY OWNER NAME		E-MAIL	
PROPERTY OWNER ADDRESS		PHONE	
PROJECT ADDRESS		A.P.N.	
PROJECT TYPE (CHECK APPLICABLE) <input type="checkbox"/> New <input type="checkbox"/> Rehabilitated <input type="checkbox"/> Non-Residential	WATER SOURCE <input type="checkbox"/> Potable <input type="checkbox"/> Recycled <input type="checkbox"/> On-site captured rainwater <input type="checkbox"/> Graywater WATER PURVEYOR	TOTAL LANDSCAPE AREA SQ. FT.	TURF PLANT AREA SQ. FT.
		NON-TURF PLANT AREA SQ. FT.	SPECIAL LANDSCAPE AREA SQ. FT.
PART 3: COMPLIANCE CHECKLIST			
Landscape Parameter	Requirements	Compliance	
TURF AREA <input type="checkbox"/> no turf	Turf shall not exceed 25% of the landscape area or 1,250 sq. ft., whichever is lesser in area. (No turf in non-residential area)	<input type="checkbox"/> YES	
	Turf shall not be planted on slopes more than 25%.	<input type="checkbox"/> YES	
	All portions of turf areas shall be wider than ten (10) feet (unless irrigated with subsurface irrigation or low volume irrigation system).	<input type="checkbox"/> YES	
PLANTING AREA	At least 80% (100% for non-residential area) of non-turf area shall consist of native or low water use plants.	<input type="checkbox"/> YES	
	No invasive and/or noxious plant species shall be planted.	<input type="checkbox"/> YES	
	Plants with similar water needs shall be grouped within hydrozones. Each hydrozone shall be controlled by a separate valve.	<input type="checkbox"/> YES	
SOIL MANAGEMENT	At least 4 cu. yds. of compost, six (6) inches deep, shall be applied per 1,000 sq. ft. of landscape area.	<input type="checkbox"/> YES	
	A minimum three (3) 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-seeding).	<input type="checkbox"/> YES	
	Grading shall be designed to minimize soil erosion, run-off, and water waste.	<input type="checkbox"/> YES	
IRRIGATION SYSTEM <input type="checkbox"/> no irrigation system	Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.	<input type="checkbox"/> YES	
	Irrigation controllers shall be a type which does not lose programming data in the event the primary power source is interrupted.	<input type="checkbox"/> YES	



WATER-EFFICIENT LANDSCAPE CHECKLIST

Community Development Department
 10300 Torre Avenue
 Cupertino, CA 95014

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

CUPERTINO

Landscaping 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.	<input type="checkbox"/> 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.	<input type="checkbox"/> YES
	All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014 "Landscape Irrigation Sprinkler and Emmitter 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.	<input type="checkbox"/> YES
	Dedicated irrigation meters are required for non-residential projects with more than 1,000 sq. ft. of landscape area.	<input type="checkbox"/> YES
WATER FEATURES <input type="checkbox"/> pool <input type="checkbox"/> other: <input type="checkbox"/> no water features	Pool and spa covers shall be installed.	<input type="checkbox"/> YES
	Recirculating water systems shall be used for all water features.	<input type="checkbox"/> YES
	Water features are limited to 10% of the landscaped area.	<input type="checkbox"/> 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 and /or the requirements of the Prescriptive Compliance Option. 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

Applicant Comments

Use additional paper if necessary

Staff Evaluation

- Approved
 Not Approved

Permit # _____

Staff Comments

 SIGNATURE

 DATE

APPENDIX B – WATER BUDGET WORKSHEET



WATER BUDGET WORKSHEET

Community Development Department
10300 Torre Avenue
Cupertino, CA 95014

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

CUPERTINO

PART 1: PROPERTY INFORMATION

PROJECT ADDRESS	A.P.N.

REFERENCE ETo	TOTAL LANDSCAPE AREA	NON-TURF PLANT AREA	SPECIAL LANDSCAPE AREA
45.3	SQ. FT.	SQ. FT.	SQ. FT.

PART 2: SAMPLE HYDROZONE TABLE

REGULAR LANDSCAPE AREA							
HYDROZONE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	LANDSCAPE AREA (SQ. FT.)	ETAF X LANDSCAPE AREA	ETWU
				TOTALS	(A)	(B)	(Y)
SPECIAL LANDSCAPE AREA							
				1			
				1			
				TOTALS	(C)	(D)	(Z)

PART 3: WATER BUDGET CALCULATIONS

(Y) + (Z) (ETWU) < _____ (MAWA)

DEFINITIONS

- HYDROZONE: Put in hydrozone #, letter, or planting description. (e.g. 1, 2, 3; A, B, C; front porch, adjacent to driveway, front lawn, etc.)
- PLANT FACTOR (PF): Use WUCOLS to determine Plant Factor. Plant factors are 0-0.1 for very low water use plants, 0.1-0.3 for low water use plants, 0.4-0.6 for moderate water use plants, and 0.7-1.0 for high water use plants.
- IRRIGATION METHOD: Overhead spray or drip
- IRRIGATION EFFICIENCY (IE): 0.75 for spray and 0.81 for drip
- ETAF: The maximum average EvapoTranspiration Adjustment Factor for residential properties, exclusive of Special Landscape Areas, is 0.55 and for non-residential properties is 0.45; ETAF for new and existing Special Landscape Areas shall not exceed 1.0.
- ETo = evapotranspiration rate means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time
- 0.62 is a conversion factor that converts acre-inches/acre/year to gallons/sq.ft./year.

PART 4: ETAF CALCULATIONS

Average ETAF for Regular Landscapes = (B) + (A)

_____ (ETAF) < (0.55 for residential)

_____ (ETAF) < (0.45 for non-residential)

Site-wide ETAF = (B + D) + (A + C)

_____ Site-wide ETAF

FORMULAS

ETWU = ETo x 0.62 x (ETAF x Landscape Area)
Estimated Total Water Use

MAWA = ETo x 0.62 x [(ETAF x Landscape Area) + ((1-ETAF) x SLA)]
Maximum Applied Water Allowance

APPENDIX C – WELO COMPLIANCE CERTIFICATE

 CUPERTINO	<h2 style="margin: 0;">WELO COMPLIANCE CERTIFICATE</h2> <p style="margin: 0;">Community Development Department 10300 Torre Avenue Cupertino, CA 95014</p>	<p style="margin: 0;">408.777.3308 / Fax 408.777.3333 planning@cupertino.org http://cupertino.org/planning</p>			
PROJECT ADDRESS & A.P.N.					
CERTIFICATE OF COMPLETION					
PROPERTY OWNER NAME		E-MAIL			
PROPERTY OWNER ADDRESS		PHONE			
I certify that I received copies of all the documents required in the Landscape Ordinance (CMC Chapter 14.15). I understand it is my responsibility to record a maintenance agreement stating that the subject landscape is protected and to see that the project is maintained in accordance with the Irrigation Schedule and the Landscape and Irrigation Maintenance Schedule provided.					
SIGNATURE OF PROPERTY OWNER		DATE			
CERTIFICATE OF INSTALLATION					
COMPANY					
ADDRESS					
NAME		PROFESSIONAL SEAL			
TITLE	LIC. /CERT.#				
E-MAIL	PHONE				
I certify that based upon periodic site observations, the landscape planting and irrigation installation has been completed in accordance with the Landscape Ordinance (CMC Chapter 14.15). I understand that it is my responsibility to provide the Irrigation Schedule and the Landscape and Irrigation Maintenance Schedule to the subject applicant/property owner.					
SIGNATURE OF LICENSED/CERTIFIED LANDSCAPE PROFESSIONAL		DATE			
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; vertical-align: top;"> STAFF NOTES: (permit #, inspection date) </td> <td style="width: 35%; vertical-align: top;"> <ol style="list-style-type: none"> 1. <i>Prescriptive Compliance Application</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 2. <i>Water Efficient Landscape Worksheet</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 3. <i>Landscape Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 4. <i>Irrigation Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 5. <i>Grading Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required </td> <td style="width: 35%; vertical-align: top;"> <ol style="list-style-type: none"> 6. <i>Irrigation Schedule</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 7. <i>Landscape and Irrigation Maintenance Schedule</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 8. <i>Soil Management Report</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 9. <i>Irrigation Audit Report</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required </td> </tr> </table>			STAFF NOTES: (permit #, inspection date)	<ol style="list-style-type: none"> 1. <i>Prescriptive Compliance Application</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 2. <i>Water Efficient Landscape Worksheet</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 3. <i>Landscape Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 4. <i>Irrigation Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 5. <i>Grading Plans</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 	<ol style="list-style-type: none"> 6. <i>Irrigation Schedule</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 7. <i>Landscape and Irrigation Maintenance Schedule</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 8. <i>Soil Management Report</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required 9. <i>Irrigation Audit Report</i> <input type="checkbox"/> YES <input type="checkbox"/> Not Required
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APPENDIX D – LANDSCAPE AND IRRIGATION PLANS STANDARDS

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. **Landscape Plans.** 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:
 - a. Symbol (representing the plant on the plan).
 - b. Common name.
 - c. Botanical name.
 - d. Container size.
 - e. Quantity.
 - f. Type (e.g. grass, forb, succulent, vine, shrub, tree, etc.).
 - g. Water-efficient species identification. All “native” and “low water use” plant species (defined in Section 14.15.030) shall be so labeled.
 - h. Unique physical specifications of plants (e.g., bare-root, field-potted, multi-trunk, etc.), if applicable;
 3. Include the following:
 - a. General notes, planting notes, plant layout based on size at maturity, species, and symbol legend.
 - b. Spacing of proposed plantings.
 - c. Topography
 - d. Trunk diameter of all existing Protected Trees as defined in Chapter 14.18 of the Cupertino Municipal Code.
 - e. Existing features to remain, such as trees, fencing, hardscape, etc.
 - f. Existing features to be removed.
 - g. Identification of pertinent site factors such as sun exposure, microclimate, property lines, buildings, underground/above-ground utilities, existing drainage features, etc.

- h. Proposed grading. See Section 16.08 of the Cupertino Municipal Code for the requirements of when a grading permit is required.
 - i. Seed mix, if applicable.
 - j. All planted landscape areas are required to have friable soil to maximize water retention and infiltration;
 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. **Irrigation Plans.** 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.

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.

STATE OF CALIFORNIA)

COUNTY OF SANTA CLARA)

CITY OF CUPERTINO)

I, GRACE SCHMIDT, City Clerk and ex-officio Clerk of the City Council of the City of Cupertino, California, do hereby certify the attached to be a true and correct copy of Ordinance No. 16-2142, which was enacted on April 5, 2016, and that it has been published or posted pursuant to law (G.C. 40806).

IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 8th day of April, 2016.



GRACE SCHMIDT, City Clerk and Ex-officio Clerk
of the City Council of the City of Cupertino, California