

CITY OF MOUNTAIN VIEW
RESOLUTION NO.
SERIES 2016

A RESOLUTION APPROVING AMENDMENTS TO THE
CITY OF MOUNTAIN VIEW WATER CONSERVATION IN
LANDSCAPING REGULATIONS

WHEREAS, the adoption and enforcement of the Water Conservation in Landscaping Regulations (“Regulations”) is necessary to help manage and protect the City of Mountain View’s potable water supply in the short and long term and to avoid or minimize the effects of drought and shortage within the City; and

WHEREAS, the City Council adopted the Regulations on May 25, 2010 to comply with the requirements of AB 1881; and

WHEREAS, Governor Brown issued Executive Order B-29 on April 1, 2015 which directed State agencies to implement immediate measures to save water, increase enforcement against water waste, and streamline government response to ongoing drought conditions; and

WHEREAS, the California Water Commission approved the proposed revisions to the State Model Ordinance (“Model Ordinance”) on July 15, 2015; and

WHEREAS, local agencies are required to adopt the revised Model Ordinance or adopt a local ordinance at least as effective in conserving water; and

WHEREAS, Article X, Section 2 of the California Constitution and Section 100 of the California Water Code declare that the general welfare requires water resources be put to beneficial use, waste or unreasonable use or unreasonable method of use of water be prevented, and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof; and

WHEREAS, the City Council finds and determines that these Regulations are consistent with the provisions requiring reductions in outdoor water use for landscaping in the California Green Building Standards Code as such provisions will continue to be implemented in the coming years. Such requirements include the development of a water budget for landscape irrigation in accordance with methodology outlined in either the Model Ordinance or pursuant to a locally adopted ordinance; and

WHEREAS, on December 16, 2015, the Environmental Planning Commission held a duly noticed public hearing and forwarded its recommendations to the City Council to adopt amendments to the Regulations; and

WHEREAS, on February 9, 2016, having given notice as required by Chapter 36 of the Mountain View City Code, the City Council held a public hearing to consider amendments to the Regulations; and

WHEREAS, the adoption of the Regulations is categorically exempt under the California Environmental Quality Act (CEQA) pursuant to Section 15307 – Action by Regulatory Agencies for the Protection of Natural Resources;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mountain View that amendments to the Regulations are adopted as shown in Exhibit A, attached hereto and incorporated herein, and which shall be on file in the Office of the City Clerk.

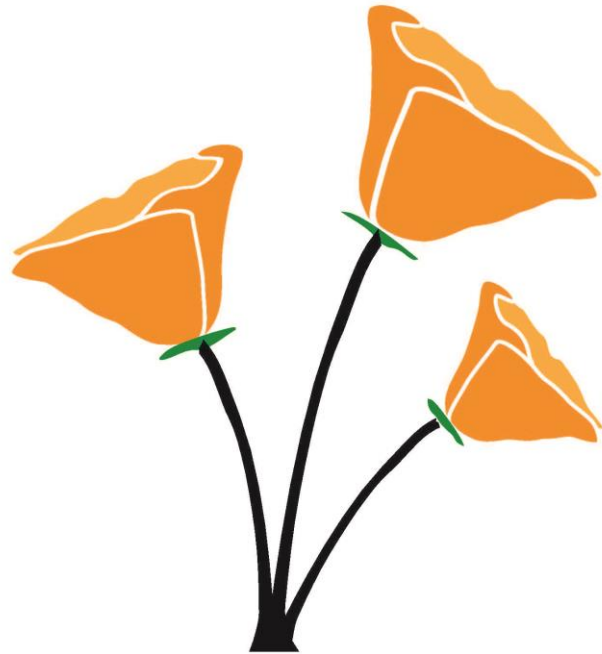
TIME FOR JUDICIAL REVIEW

The time within which judicial review of this document must be sought is governed by California Code of Procedure Section 1094.6 as established by Resolution No. 13850 adopted by the City Council on August 9, 1983.

MA/CB/4/RESO
891-01-26-16r-E-1

Exhibit: A. Water Conservation in Landscaping Regulations

CITY OF MOUNTAIN VIEW



WATER CONSERVATION IN LANDSCAPING REGULATIONS

**Adopted by the City Council
February 9, 2016**

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CHAPTER 1 – PURPOSE

The purpose of the Water Conservation in Landscape Regulations 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.

These regulations supplement the City of Mountain View's Zoning Ordinance (Title 36 of the Municipal Code) by providing detailed requirements for landscaping and irrigation systems for select new and rehabilitated landscape areas. These regulations further the City's current water conservation efforts, reduce future water demands, and comply with State water conservation requirements.

CHAPTER 2 – APPLICABILITY

A. The provisions of these regulations apply to the following:

1. New and/or rehabilitated landscaping associated with any project requiring a Zoning Permit, except for R1 and R2 zoned properties, where the affected landscape area is 500 square feet or greater.
2. New and/or rehabilitated landscape projects at City facilities where the affected landscape area is 500 square feet or greater.

B. The provisions of these regulations shall not apply to the following:

1. Any project requiring a Zoning Permit, or at a City facility, where new and/or rehabilitated landscaping is less than 500 square feet.
2. Any project located in an R1 or R2 zoning district.
3. Registered local, State, or Federal historical sites where landscaping establishes a historical landscape style as determined by a public board, committee, or commission responsible for architectural review or historic preservation.
4. Ecological restoration projects that do not require a permanent irrigation system.
5. Community gardens, demonstration gardens, or plant collections open to the public.

6. Any commercial cultivation of agricultural products, including, but not limited to, products of farms, orchards, production nurseries, and forests.

CHAPTER 3 – DEMONSTRATION OF LANDSCAPE WATER EFFICIENCY

Applicants of projects subject to these regulations may choose one of the following two options to demonstrate that a landscape proposal meets the water efficiency goals of these regulations. In both cases, applicants must meet all other applicable design criteria listed in Chapter 4 (Water-Efficient Design Elements) and all maintenance requirements listed in Chapter 5 (Landscape and Irrigation Maintenance). Demonstration of landscape water efficiency shall only be for the affected landscape area under review and not total available landscape area.

- A. **Plant-Type Restriction Option:** The Landscape Project Submittal and any accompanying documentation must demonstrate all of the following as a means of achieving water efficiency. In addition, all other applicable design criteria of Chapter 4 (Water-Efficient Design Elements) shall be met:
 1. Landscapes shall not include high-water-use plants.
 2. At least 80 percent of the total landscape area shall be native plants or low-water-use plants.
- B. **Water Budget Option:** Project applicants may elect to prepare a Water Budget Calculation, per the provisions of Chapter 10 (Water Budget Calculation), as a means of demonstrating water efficiency.

CHAPTER 4 – WATER-EFFICIENT DESIGN ELEMENTS

The elements of a landscape design shall be designed to achieve water efficiency consistent with the intent of these regulations. Applicants of projects subject to these regulations shall demonstrate water efficiency through the preparation of a Landscape Project Submittal, pursuant to Chapter 6 (Components of a Landscape Project Submittal).

- A. **Plant Material:**
 1. Plants shall be chosen and arranged appropriately based upon the site's climate, soil characteristics, sun exposure, and other factors. Plants with similar water needs shall be grouped (within hydrozones).

2. There shall be no high-water-use plants (e.g., turf and water features) unless a Water Budget Calculation is developed and the estimated total water use (ETWU) of the landscape area does not exceed the maximum applied water allowance (MAWA).
3. A minimum of 80 percent of the remaining landscape area shall be native plants or low-water-using plants, unless a Water Budget Calculation is developed and the ETWU of the landscape area does not exceed the MAWA.
4. Turf shall not be planted on slopes greater than 25 percent, except as part of a defined amphitheater.
5. Turf areas shall not be less than 10' wide, unless irrigated with subsurface irrigation or other low-volume irrigation system.
6. High-water-use plants are prohibited in street medians.
7. The horticultural attributes of plant species (e.g., mature plant size, invasive roots, 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) and allow for adequate soil volume for healthy root growth.
8. Fire-prone plant materials and highly flammable mulches are strongly discouraged.
9. Installation of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.
10. The architectural guidelines, conditions, covenants, or restrictions (CC&Rs) of a common-interest development shall not supersede these regulations by either prohibiting low-water-use plants or including conditions that have the effect of restricting the use of low-water-use plants and/or irrigation systems.

B. Irrigation System: An irrigation system shall meet all the requirements listed in this chapter and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. In addition:

1. Dedicated landscape water meters shall be required for landscape areas greater than 1,000 square feet.

2. All irrigation systems shall utilize non-volatile memory and be equipped with automatic irrigation controllers utilizing weather or soil-moisture data.
3. Rain-sensing shutoff devices, either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems.
4. The irrigation hardware for each hydrozone shall have a separate valve. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers and turf.
5. Flow sensors that detect high flow conditions created by system damage or malfunction are required.
6. Master shut-off valves are required on all projects except landscapes that use a technology of equivalent effectiveness.
7. Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turf.
8. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.
9. Pressure regulators or booster pumps shall be installed if the water pressure is below or exceeds the recommended pressure of the specified irrigation devices.
10. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.
11. Low-volume irrigation shall be required in the following areas: on slopes greater than 25 percent (except in defined amphitheaters), within 24" of a nonpervious surface (except adjacent to internal pathways) or in any narrow or irregularly shaped area that is less than 10' in width in any direction.
12. Average irrigation efficiency is assumed to be 75 percent for overhead sprinklers and 81 percent for drip systems.
13. Irrigation shall be scheduled in compliance with Section 35, Article II, Division 3 of the Municipal Code in order to prevent evaporative water loss from irrigation, unless unfavorable weather prevents it or otherwise renders

irrigation unnecessary. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

C. Mulch and Soil Preparation:

1. A minimum 3" layer of mulch shall be applied on all exposed soil surfaces of planting areas in order to prevent evaporative water loss from exposed soil, except in areas of direct seeding application (e.g., hydroseed).
2. Organic mulch materials made from recycled or postconsumer shall take precedence over inorganic materials or virgin forest products unless the recycled postconsumer organic products are not locally available. Organic mulches are not required where prohibited by local Fuel Modification Plan Guidelines or other applicable local ordinances.
3. Prior to the planting of any materials, compacted soils shall be transformed to a friable condition. On engineered slopes, only amended planting holes need meet this requirement.
4. For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of 6" into the soil. Soils with greater than 6 percent organic matter in the top 6" of soil are exempt from adding compost and tilling.

D. Hydrozones:

1. Hydrozones shall group plant materials of similar water use and shall generally demarcate areas of similar slope, sun exposure, soil, and other site conditions appropriate for the selected plants.
2. The flow of water to each hydrozone shall be controlled by a separate valve.
3. Sprinkler heads and other water emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
4. Within a hydrozone, low- and moderate-water-use plants may be mixed, but all plants within that hydrozone shall be classified as moderate water use for MAWA calculations. High-water-use plants shall not be mixed with low- or moderate-water-use plants.

E. Water Features:

1. Recirculating water systems shall be used for water features.

2. The wet-surface area of a water feature shall be counted as an area of high-water-using plants for purposes of the plant-type restriction and the water budget calculation.
3. Pool and spa covers are required to prevent evaporative water loss from the exposed water surface.

CHAPTER 5 – LANDSCAPE AND IRRIGATION MAINTENANCE

Landscapes shall be maintained to ensure successful establishment following installation and to ensure the efficient use of water consistent with these regulations.

- A. Maintenance shall include, but not be limited to, the following: routine inspection; auditing; pressure testing, adjustment, and repair of the irrigation system; aerating and dethatching turf areas; topdressing with compost; replenishing mulch; fertilizing; pruning; replanting of failed plants; weeding; pest control; and removing obstructions to water emission devices.
- B. 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.
- C. Failed irrigation hardware components shall be replaced with the same or functionally equivalent components or with components of greater efficiency.

CHAPTER 6 – COMPONENTS OF A LANDSCAPE PROJECT SUBMITTAL

The Landscape Project Submittal for all projects subject to these regulations, except projects at City Facilities, shall contain the following items and shall be submitted to the City of Mountain View Planning Division as part of the zoning permit application:

- A. **Water-Efficient Design and Maintenance Checklist** (Chapter 8).
- B. **Landscape and Irrigation Design Plans** (Chapter 9). Irrigation design plans shall be submitted with the Building Permit Plan Check.
- C. **Water Budget Calculation** (Chapter 10). Not required if plant-type restriction option is utilized.

- D. **Certification of Installation** (Chapter 11). Shall be submitted following installation of landscaping materials and irrigation hardware.

CHAPTER 7 – PREPARATION OF A LANDSCAPE PROJECT SUBMITTAL

The Landscape Project Submittal for all projects subject to these regulations shall be prepared by the following individual(s):

- A. For a project with a landscape area less than 2,500 square feet, the Landscape Project Submittal may be prepared by the project applicant or by a certified or authorized professional(s).
- B. For a project with a landscape area of 2,500 square feet or greater, the Landscape Project Submittal must be prepared by a certified or authorized professional(s).

CHAPTER 8 – WATER-EFFICIENT DESIGN AND MAINTENANCE CHECKLIST

A completed water-efficient design and maintenance checklist is required of all projects subject to these regulations. The checklist shall serve as a self-certification of consistency with the water-efficiency requirements of these regulations.

CHAPTER 9 – LANDSCAPE AND IRRIGATION DESIGN PLANS

Landscape and Irrigation Design Plans are required of all projects subject to these regulations. The Landscape and Irrigation Design Plans shall be prepared as follows:

- A. Landscape and Irrigation Design Plans shall incorporate all applicable elements of Chapter 4 (Water-Efficient Design Elements).
- B. The landscape design portion of the Landscape and Irrigation Design Plans, at a minimum, shall:
 - 1. Provide basic project information, such as applicant name, project contacts, site address, total landscape area, total turf area, and irrigation water source (e.g., municipal, recycled).

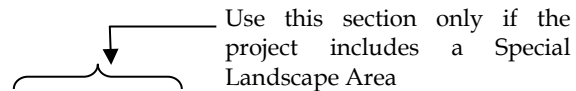
2. Identify, in table form, all plants to be installed as part of the project. The table shall include the following:
 - i. Symbol (representing the plant on the plan).
 - ii. Common name.
 - iii. Botanical name.
 - iv. Container size.
 - v. Quantity.
 - vi. Type (e.g., grass, succulent, vine, shrub, tree).
 - vii. Water-efficient species identification. All “native” and “low-water-use” plant species (defined in Chapter 17) shall be labeled.
 - viii. Unique physical specifications of plants (e.g., bare-root, field-potted, multi-trunk), if applicable.
 3. Delineate and label each hydrozone.
 4. Identify each hydrozone as low water, moderate water, high water, or mixed (low/moderate) water use.
 5. Identify special landscape areas.
 6. Identify type of mulch and application depth.
 7. Identify type of soil amendment and quantity.
 8. Identify type and wet-surface area of water features.
 9. Identify hardscapes (pervious and nonpervious).
- C. The irrigation design portion of the Landscape and Irrigation Design Plans shall be submitted with the Building Permit Plan Check and 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 sensors, 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).
- D. **Grading.** If the landscape area will be graded, then, at a minimum, grading contours and quantities shall be shown on the landscape portion of the Landscape and Irrigation Design Plans. Grading shall meet all applicable requirements of the City of Mountain View Standard Design Criteria.
- E. **Graywater Systems.** 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.
- F. **Rainwater Retention.** It is strongly recommended that landscape areas be designed for capture and infiltration capacity that is sufficient to prevent runoff from impervious surfaces from either: (1) the 1", 24-hour rain event or (2) the 85th percentile, 24-hour rain event, and/or additional capacity as required.
- G. **Stormwater Management.** Stormwater Best Management Practices shall be incorporated, as appropriate, into the landscape installation, the details of which shall be shown on the landscape portion of the Landscape and Irrigation Design Plans. Installation shall be subject to the City of Mountain View's National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit requirements.

CHAPTER 10 – WATER BUDGET CALCULATION

A Water Budget Calculation worksheet, developed by the City of Mountain View, will be provided by the Planning Division to all project applicants. Applicants may elect to complete a Water Budget Calculation for the project. When a Water Budget is prepared for landscape areas equal to or greater than 2,500 square feet, it must be completed by a certified or authorized professional. A Water Budget Calculation shall adhere to the following requirements:

- A. The plant factor shall be based on the species evaluation list from the Water Use Classification of Landscape Species (WUCOLS), and shall be 0.3 for low-water-use plants, 0.5 for moderate-water-use plants, and 0.8 for high-water-use plants.
- B. The wet-surface area of a water feature shall be counted as an area of high-water-using plants for purposes of a Water Budget Calculation.
- C. Where low- and moderate-water-use plants are to be mixed within a single hydrozone, the entire hydrozone area shall be classified as moderate water use for purposes of a Water Budget Calculation. High-water-use plants shall not be mixed with low- or moderate-water-use plants.
- D. All special landscape areas (SLA) shall be identified and their water use included in the Water Budget Calculation.
- E. The reference evapotranspiration adjustment factor (ETAF) for SLAs shall not exceed 1.0. The ETAF for the remaining landscaped area shall not exceed 0.45.
- F. Irrigation system efficiency shall be .75 for overhead sprinkler devices and .81 for drip system services.
- G. MAWA shall be calculated using the equation below:



$$MAWA = (ET_o) (0.62) [(0.45 \times LA) + (0.55 \times SLA)]$$

Where:

- MAWA = Maximum Applied Water Allowance (gallons per year)
- ET_o = Reference Evapotranspiration (inches per year)
- 0.62 = Conversion Factor (inches per square foot to gallons)
- 0.45 = Reference Evapotranspiration Adjustment Factor (ETAF)
- LA = Landscape Area including SLA (square feet)
- 0.55 = Additional Water Allowance for SLA
- SLA = Special Landscape Area (square feet)

An ET_o of 43" per year shall be used in Water Budget Calculations for all projects located within the City of Mountain View.

- H. 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.

Use this section only if the project includes a Special Landscape Area

$$ETWU = (43)(0.62) \left(\frac{PF \times HA}{IE} \right) + (43)(0.62)(SLA)$$

Where:

- ETWU = Estimated Total Water Use per year (gallons per year)
- ETo = Reference Evapotranspiration (inches per year)
- PF = Plant Factor (0.8, 0.5, or 0.3 based on water-use designation)
- HA = Hydrozone Area [high-, medium-, low- and mixed-water-use areas] (square feet)
- SLA = Special Landscape Area (square feet)
- 0.62 = Conversion Factor (inches per square foot to gallons)
- IE = Irrigation Efficiency (.75 or .81)

An ETo of 43" per year shall be used in Water Budget Calculations for all projects located within the City of Mountain View.

CHAPTER 11 – CERTIFICATION OF INSTALLATION

A completed Certification of Installation form, provided by the Planning Division, shall be submitted to the Planning Division for all projects within 60 days of installation of the landscape material and irrigation hardware. The Certification of Installation shall verify the following: inspection to confirm that the landscaping and irrigation system was installed as specified in the landscape and irrigation design plan; system test with distribution uniformity; system tune-up to reduce overspray or runoff that causes overland flow; diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes; and preparation of a recommended irrigation schedule.

CHAPTER 12 – AUDIT OF EXISTING LANDSCAPES

The City of Mountain View shall be authorized to require irrigation audits to evaluate water use on established landscapes larger than one (1) acre. Such audits may also be initiated as a coordinated effort between the City of Mountain View and another entity (e.g., Santa Clara Valley Water District or the Bay Area Water Supply and Conservation Agency), as part of an established outdoor water conservation program. When an irrigation audit is required, it must be completed by a certified landscape irrigation auditor.

CHAPTER 13 – PUBLIC EDUCATION

- A. The City of Mountain View shall provide to all project applicants and members of the public information 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 identifying the common and biological names of plants and the principles of water-efficient landscaping used at the site.

CHAPTER 14 – PENALTIES

The penalties for violations set forth in Sections 1.7 and 36.58.55 of the City of Mountain View Municipal Code shall apply to violations of the provisions of these regulations.

CHAPTER 15 – EXCEPTIONS

Exceptions to these regulations shall be subject to review and approval by the City Council or Zoning Administrator.

CHAPTER 16 – RELATIONSHIP TO THE ZONING ORDINANCE

Standards stated in the Zoning Ordinance (Title 36 of the Mountain View Municipal Code) that are not specified in this section shall remain applicable. In the case of conflict between these regulations and the Zoning Ordinance, the standards contained herein shall govern.

CHAPTER 17 – DEFINITIONS

The definitions of terms in this Chapter shall apply wherever these terms appear within these regulations.

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

Amphitheater. An open-air venue for sports, concerts, or theatrical performances.

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

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

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

Certified or Authorized 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 of California 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 inches per square foot to gallons per square foot.

Dedicated Landscape Meter. A water meter used to measure water use in landscape areas. May also include ancillary potable uses such as drinking fountains.

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

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

Estimated Total Water Use (ETWU). The total water used for the landscape as described in Chapter 10 (Water Budget Calculation).

Evapotranspiration Adjustment Factor (ETAF). A factor of 0.45 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. ETAF for a SLA shall not exceed 1.0.

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.

Graywater. Untreated wastewater of a quality suitable for nonpotable uses (e.g., has not been contaminated by toilet discharge or food products). Graywater includes, but is not limited to, wastewater from bathtubs, showers, bathroom wash basins, clothes washing machines and laundry tubs. Graywater does not include wastewater from toilets, kitchen sinks or dishwashers.

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

High-Water-Use Plant. A plant species classified as “high-water use” by WUCOLS, having a regionally adjusted plant factor of 0.7 through 0.9.

Hydrozone. A portion of the landscaped area having plants with similar water needs and rooting depth. A hydrozone may be irrigated or nonirrigated.

Internal Pathway. A permeable or nonpermeable hardscape used for walking, driving, or biking through a large landscape area.

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

Irrigation Audit. An in-depth evaluation of the performance of an irrigation system performed 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. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiency for purposes of these regulations is 75 percent for overhead sprinkler devices and 81 percent for drip systems.

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 of the affected planting areas, turf areas, and water features in a landscape installation. The landscape area does not include existing plants or water features, footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, pervious or nonpervious hardscapes, and other nonirrigated natural landscape areas (e.g., existing wild-land vegetation).

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

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.

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

Low-Volume Irrigation. The application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low-volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

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 WUCOLS, having a regionally adjusted plant factor of 0.0 through 0.3, shall be considered low-water-use plants.

Master Shutoff 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 as specified in Chapter 10 (Water Budget Calculation).

Median. An area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

Model Home. A home or group of homes used to display homes for sale in a subdivision. A model home is used to show the living space and features of different models of homes available to the consumer.

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

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

Nonpotable Water. Includes recycled water, graywater, rainwater, or other reused water. For the purposes of these regulations, nonpotable water does not include private groundwater supplies.

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

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

Plant Factor. A numerical factor, when multiplied by reference evapotranspiration (ET_o), estimates the amount of water needed by plants. Plant factors are based on the publication "Water Use Classification of Landscape Species" (WUCOLS).

Project Applicant. The individual or entity submitting a Landscape Project Submittal. A project applicant may be the property owner or his or her designee.

Rain Sensor or Rain-Sensing Shutoff Device. A component that automatically suspends an irrigation event when it rains.

Recycled Water. Treated wastewater of a quality suitable for nonpotable uses, including landscape irrigation and water features.

Reference Evapotranspiration (ET_o). A standard measurement of environmental parameters that affect the water use of plants. ET_o is an estimate of the evapotranspiration of a large field of 4" to 7" tall, cool-season grass that is well-watered. For the purpose of a Water Budget Calculation, an ET_o of 43" shall be used for projects located within the City of Mountain View.

Rehabilitated Landscape. Modification of existing landscapes; includes any area where new landscape is installed.

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.

Special Landscape Area (SLA). An area of the landscape dedicated solely to edible plants, areas irrigated with nonpotable water, water features using nonpotable water, and areas dedicated to active play, recreation, or public assembly such as parks, sports fields, picnic grounds, amphitheaters or golf course trees, fairways, roughs, surrounds, and trees.

Sprinkler Head. A device that delivers water through a nozzle.

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

Swing Joint. An irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction to prevent equipment damage.

Turf. A ground cover surface consisting of nonnative 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 swimming pools, spas, ponds, fountains, waterfalls, and artificial streams. Water features do not include manually operated water play areas in public parks.

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.

WUCOLS. The “Water Use Classification of Landscape Species” published by the University of California Cooperative Extension, the Department of Water Resources 2014.

Zoning Permit. A legal document that gives permission for a use or development on a particular piece of land, including, but not limited to, Development Review Permits, Planned Unit Development Permits, Planned Community Permits, and Conditional Use Permits.