

Ordinance No. NS-1200.328

**AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE
COUNTY OF SANTA CLARA ADDING A NEW DIVISION B33 TO THE
COUNTY OF SANTA CLARA ORDINANCE CODE ESTABLISHING
NEW WATER-EFFICIENT LANDSCAPING REGULATIONS
PURSUANT TO THE CALIFORNIA WATER CONSERVATION IN
LANDSCAPING ACT, AND MAKING RELATED FINDINGS**

SUMMARY

This ordinance establishes new water-efficient landscaping and irrigation requirements applicable to unincorporated County lands in compliance with the California Water Conservation in Landscaping Act.

WHEREAS, Assembly Bill 1881 (2006) imposed new requirements on local jurisdictions to adopt, by January 1, 2010, either an updated model ordinance to be developed by the California Department of Water Resources (“DWR”), or their own water-efficient landscaping ordinances that are at least as effective at conserving water as the DWR model ordinance;

WHEREAS, DWR was required by statute to publish its updated model ordinance no later than January 1, 2009; however, publishing was delayed until September 10, 2009;

WHEREAS, model ordinances were also developed by the Bay Area Water Supply and Conservation Agency (“BAWSCA”) and the Santa Clara Valley Water District (“SCVWD”);

WHEREAS, staff recommended that the County adopt its own ordinance that was based primarily on the SCVWD model ordinance;

WHEREAS, members of the County Planning Commission raised concerns regarding whether the SCVWD model ordinance was too complex, difficult to understand and implement, and financially burdensome for residents of unincorporated Santa Clara County, and suggested that other regulatory alternatives be explored that would achieve an equivalent or better level of water conservation in a less burdensome manner;

WHEREAS, the Board of Supervisors directed staff to evaluate other alternatives to address the Planning Commission’s concerns;

WHEREAS, the Planning Commission appointed a subcommittee to work with staff to explore alternatives; and

WHEREAS, the ordinance proposed for adoption incorporates modifications that will achieve an equivalent or better level of water conservation in a manner that is less burdensome for County residents.

THE BOARD OF SUPERVISORS HEREBY MAKES THE FOLLOWING FINDINGS PURSUANT TO GOVERNMENT CODE SECTION 65594:

The County ordinance is at least as effective in conserving water as the updated model ordinance adopted by DWR for the following reasons. The County ordinance is substantially similar to the DWR ordinance in many respects. However, there are differences in scope and applicability.

The DWR ordinance applies to new construction and rehabilitated landscapes with landscape areas of 2,500 square feet or greater for commercial projects, public projects, developer-installed single-family dwellings, and multi-family dwellings; and to new construction and rehabilitated landscapes of 5,000 square feet or greater for homeowner-provided or homeowner-hired single-family and multi-family residential projects.

The County ordinance applies to new single-family and two-family dwellings, including projects that qualify as “rebuilt” per Section C1-22 of the County Ordinance Code, earthwork subject to a grading permit, and projects that are subject to a use permit or architecture and site approval. The ordinance automatically applies if the total landscape area for such projects exceeds 5,000 square feet. But the ordinance also applies if a majority (>50%) of the total plants or total trees is either non-native or not low water use, or if the total turf area exceeds the lesser of 25% of the landscape area or 1,250 square feet.

The scope of applicability of the County ordinance is more appropriate to the local conditions and the type of development that occurs in unincorporated Santa Clara County. Based on the County’s low-density land use policies, commercial, public agency and multi-family residential projects are extremely rare. The limited development that occurs is rural in nature, and typically consists of single-family homes on lots that are much larger in size than in cities and even in some other counties that allow development at much higher densities.

Instead of focusing solely on the size of the landscaped area, the County determined that water conservation and efficiency in this jurisdiction would best be served by encouraging the planting of native and low water use plants and the minimization of total turf area. This strategy is a better fit for the large lot sizes and hilly topography in unincorporated Santa Clara County and, based on the evidence in the record, is at least as effective in conservation water as the DWR model ordinance.

The County’s experience has been that complex and costly ordinances can lead to unlawful development. By providing more simplified and user-friendly options (or

“templates”) for compliance (see Section B33-5), the County hopes to make it easier and less costly for homeowners and developers to comply, thereby reducing potential noncompliance and achieving greater water conservation. In addition, the “templates” have been calibrated to achieve greater water savings than what could in certain circumstances result from using the water budget formula.

The DWR model ordinance establishes different requirements and applicability depending on whether a project is commercial, public, or residential in nature. It further distinguishes between residential projects where the landscaping is developer-installed or homeowner-installed/provided. The County determined that, because the overall purpose is to achieve water conservation, it was not appropriate to make such distinctions. Rather, the County chose to apply a uniform set of criteria to all types of new development projects.

**THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA CLARA
ORDAINS AS FOLLOWS:**

SECTION 1: The following new Division B33, of Title B: Regulations, of the County of Santa Clara Ordinance Code, is added to read as follows:

Division B33
WATER CONSERVATION IN LANDSCAPING

CHAPTER I. GENERAL PROVISIONS

Sec. B33-1. Intent.

The intent of this division is to reduce water waste in landscaping by promoting the use of region-appropriate plants that require minimal supplemental irrigation, and by establishing standards for irrigation efficiency. This division implements the California Water Conservation in Landscaping Act, Government Code Section 65591 et seq.

Sec. B33-2. Applicability.

This division shall apply to landscaping associated with project types listed in subsection (a), below, with exceptions provided in subsection (b). Project submittal requirements and standards vary based on total landscape area, turf area and plant types. Per the provisions of Section B33-4, a water-efficient design checklist shall be used to

determine compliance with basic criteria provided within that section, and to determine whether additional procedures and standards of Sections B33-5 through B33-13 apply.

- (a) This division shall apply to landscape projects associated with:
 - (1) New single-family or two-family dwellings, including projects classified as “rebuild,” per Section C1-22.
 - (2) Earthwork that is subject to a grading permit, per Sections C12-420 through C12-423.
 - (3) Projects that are subject to a use permit or architecture and site approval.
- (b) This division shall not apply to:
 - (1) Registered local, state or federal historical sites where landscaping is an integral component of the historic resource, or where landscaping provides beneficial historical context, as determined by the Santa Clara County Historic Heritage Commission, or by any applicable public board or commission responsible for architectural review or historic preservation.
 - (2) Ecological restoration activities where installed plant materials do not require a permanent irrigation system.
 - (3) Hydraulic mulch seeding (hydroseeding) for erosion/ sedimentation control where a permanent irrigation system is not required.
 - (4) Surface mine reclamation projects that do not require a permanent irrigation system.
 - (5) Community gardens or plant collections, as part of botanical gardens and arboretums open to the public.
 - (6) Any commercial cultivation of agricultural products, including but not limited to products of farms, orchards, production nurseries and forests.

Sec. B33-3. Definitions.

The definitions in this section apply to this division, unless it is apparent from the context that a different meaning is intended.

- (a) *Applied water:* The portion of water supplied by the irrigation system to the landscape.

- (b) *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.
- (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 U.S. Environmental Protection Agency’s WaterSense irrigation designer certification program, or the Irrigation Association’s Certified Irrigation Designer program.
- (d) *Effective precipitation (Eppt)*: The portion of total precipitation that becomes available for plant growth.
- (e) *Estimated Total Water Use (ETWU)*: The total water used for the landscape, estimated by applying the formula in subsection (j) of Section B33-9: Water Budget Calculation.
- (f) *Evapotranspiration adjustment factor (ETAF)*: A coefficient that, when applied to reference evapotranspiration, adjusts for plant water requirements and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The base ETAF value for the purposes of this division shall be 0.7. ETAF for *special landscape areas* shall be 1.0.
- (g) *Evapotranspiration rate*: The quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
- (h) *Hardscape*: Any constructed feature in a landscape built of concrete, stone, wood, or other such pervious or non-pervious durable material. Includes, but is not limited to, patios, walkways, and retaining walls.
- (i) *Hydrozone*: A portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
- (j) *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, and that are rated by the IPC as being either moderately invasive or highly invasive. Where an IPC listing notes limited circumstances under which a plant may be invasive (e.g. “invasive in riparian areas and tidal marshes”), such plant shall not be considered invasive where those circumstances do not apply.

- (k) *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 minimum average irrigation efficiency for purposes of this division is 70%. Greater irrigation efficiency can be expected from well-designed and maintained systems.
- (l) *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.
- (m) *Landscape architect*: A person who holds a license to practice landscape architecture in California as defined by the California Business and Professions Code, Section 5615.
- (n) *Landscape area*: The total horizontal surface area dedicated to plant installation (including adjacent ground that provides for the plants' establishment), plus the *wet surface area* of any water features. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, or other pervious or non-pervious hardscapes outside of planted areas (planted areas containing gravel or inorganic mulch *are* included). Landscape area does not include undisturbed areas with established non-irrigated vegetation, or landscaping that is exempt from this division by subsection B33-2(b).
- (o) *Landscape contractor*: A person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
- (p) *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.
- (q) *Low-volume irrigation*: The application of irrigation water through a system of tubing or lateral lines and low-volume emitters such as drip and bubblers. Certain rotary emitters designed for highly efficient water distribution, and situated to irrigate low water use plants, may also be included in this definition at the discretion of the Planning Office.

- (r) *Low water use plant*: A plant species whose demonstrated water needs are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established. Any species classified as “very low water use” and “low water use” by WUCOLS, having a regionally adjusted plant factor of 0.0 through 0.3, shall be categorically deemed a low water use plant. Other credible information resources that provide locally relevant information on plant species water needs (e.g. Santa Clara Valley Water District Water-Wise Plant List, East Bay Municipal Utility District, Sunset Publishing) may also be utilized to establish whether a particular species qualifies as a low water use plant.
- (s) *Maximum Applied Water Allowance (MAWA)*: The upper limit of annual applied water for the established landscaped area as specified in Section B33-9: Water Budget Calculation.
- (t) *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.
- (u) *Native plant*: A plant indigenous to a specific area of consideration. For the purpose of this division, the term shall 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.
- (v) *Noxious weed*: Any plant species identified as a noxious weed by the California Department of Food and Agriculture, appearing on the most recent version of the publication entitled “Pest Ratings of Noxious Weed Species and Noxious Weed Seed.”
- (w) *Operating pressure*: The pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
- (x) *Overhead sprinkler irrigation system*: A system that delivers water through the air (e.g., spray heads and rotors).
- (y) *Overspray*: Irrigation water that is delivered beyond the target area.
- (z) *Plant factor*: A numerical value that, 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), and are more precisely determined by the landscape professional, with consideration of site-specific soil and microclimate conditions. Plant factor values range from 0.0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

- (aa) *Recycled water*: Treated wastewater of a quality suitable for non-potable uses including landscape irrigation and water features.
- (bb) *Reference evapotranspiration (ET_o)*: A standard measurement of environmental parameters that affect the water use of plants.
- (cc) *Runoff*: Water that is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.
- (dd) *Soil moisture sensor*: A device that measures the amount of water in the soil. The device may also initiate or suspend irrigation.
- (ee) *Special landscape area (SLA)*: An area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, and water features using recycled water. Also includes land uses characterized by active play or high-volume foot traffic such as parks, cemeteries, sports fields and golf courses; where turf functions as a walking/playing surface.
- (ff) *Station*: An area served by one valve or by a set of valves that operate simultaneously.
- (gg) *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.
- (hh) *Water feature*: A landscape design element where open water performs an aesthetic or recreational function. Water features include ponds, fountains, waterfalls and artificial streams. The term also includes spas and swimming pools that are ancillary to single-family, two-family and multi-family residential uses.
- (ii) *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.

- (jj) *Wildland urban interface*: A geographic area designated by the Board of Supervisors as "Wildland Urban Interface."
- (kk) *WUCOLS*: The most recently published "Water Use Classification of Landscape Species" published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation.

CHAPTER II. LANDSCAPE PROJECT REQUIREMENTS

Sec. B33-4. Water-Efficient Design Checklist

A water-efficient design checklist developed by the Planning Office shall identify key water-efficient landscape components for the purposes of determining applicable requirements of this division. A completed checklist shall be submitted for all landscape projects subject to this division.

- (a) The information provided on the checklist shall determine whether additional requirements of this division apply. A landscape project submittal, including all applicable requirements of Sections B33-5 through B33-13, shall be required if any of the following apply:
 - (1) Total landscape area exceeds 5,000 square feet;
 - (2) A majority (>50%) of the total plants is neither native nor low water use;
 - (3) A majority (>50%) of the trees is neither native nor low water use; or,
 - (4) Total turf area exceeds 25% of the landscape area, or 1,250 square feet, whichever is lesser in area.
- (b) The checklist shall be completed by the property owner, and shall be submitted to the Planning Office along with the associated project application.
- (c) The landscape area information provided on the checklist shall be consistent with the corresponding landscape area on the project site plans.

Sec. B33-5. Demonstration of Landscape Water Efficiency

In addition to incorporating the requirements of Section B33-6 into the landscape project, project applicants may choose one of the following options to demonstrate that a landscape project meets this division's water-efficiency goals.

- (a) *Water budget option:* A water budget calculation, per the provisions of Section B33-9, shall be prepared as a means of demonstrating water efficiency.
- (b) *Plant-type restriction option:* The plans must demonstrate all of the following as a means of achieving water efficiency.
 - (1) The total turf area shall not exceed 25% of the landscape area, or 1,250 square feet, whichever is lesser in area.
 - (2) Within non-turf areas, at least 80% of the plants overall shall be native or low water use. In addition, at least 80% of trees within non-turf areas shall be native or low water use.
- (c) *Native plant emphasis option:* The plans must demonstrate all of the following as a means of achieving water efficiency.
 - (1) At least 60% of the plants overall shall be native. In addition, at least 60% of trees shall be native.
 - (2) No turf grasses shall be included in the installation.

Sec. B33-6. Water-Efficient Design Elements

The elements of a landscape project shall be designed to achieve water efficiency consistent with the intent of this division. Projects that require a landscape project submittal pursuant to subsection B33-4(a) shall comply with all of the following criteria.

- (a) *Plant Material:*
 - (1) Plants shall be chosen and arranged appropriately based upon the site's climate, soil characteristics, sun exposure, wildfire susceptibility and other factors. Plants with similar water needs shall be grouped within hydrozones.
 - (2) Turf shall not be planted on slopes greater than 25%.
 - (3) No portions of turf areas shall be less than eight feet wide.

- (4) 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).
- (5) Fire-prone plant materials and highly flammable mulches are strongly discouraged. In designated wildland urban interface areas, plants and other landscaping materials shall be selected, arranged and maintained to provide defensible space for wildfire protection, in conformance with Public Resources Code Section 4291 and this Code.
- (6) Installation of invasive plant species is prohibited.
- (7) Existing invasive plants and noxious weeds within or adjacent to the proposed landscape area shall be removed prior to installation, to minimize potential for spread into installation area.
- (8) The architectural guidelines, conditions, covenants or restrictions of a common interest development shall not supersede this division by, for example, prohibiting low water use plants, or including conditions that have the effect of restricting the use of low water use plants.

(b) *Irrigation System:* An irrigation system shall meet all of the requirements listed in this section and shall also comply with 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) The irrigation system shall be designed and installed to prevent runoff, low head drainage, overspray, or other similar conditions.
- (2) Irrigation systems shall be designed, installed, maintained and managed to meet or exceed an average landscape irrigation efficiency of 70%.
- (3) Low-volume irrigation shall be required in mulched areas, in areas with slope greater than 25%, and in any narrow or irregularly shaped areas that are less than eight (8) feet in width in any direction. Irrigation emitters within 24 inches of a non-permeable surface shall be either low-volume or designed to preclude wasteful overspray and runoff.
- (4) The irrigation hardware for each hydrozone shall include a separate valve. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and other plant types.

- (5) Automatic irrigation controllers and sensors are required. Controllers may either be weather-based or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change. Sensors (rain, freeze, wind, etc), either integral or auxiliary, shall function to suspend or alter irrigation operation during unfavorable weather conditions.
- (6) Overhead spray irrigation shall only occur between the hours of 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or otherwise renders irrigation unnecessary. Operation of the irrigation system outside this watering window is allowed only for auditing and system maintenance.

(c) *Soil, conditioning, and mulching:*

- (1) Soil must be capable of supporting the proposed installation and must have adequate water storage capacity. Soil characteristics, including structure, texture, percolation, pH, mineral content, and microbiology, should be evaluated early in the design process. Soil amendments, such as compost or fertilizer, should be added as appropriate.
- (2) A minimum two (2)-inch layer of mulch should be applied on all exposed soil surfaces of planting areas, except in areas of direct seeding application (e.g. hydroseed).
- (3) Stabilizing mulching products should be used on slopes.

(d) *Hydrozones:*

- (1) Hydrozones shall be used to 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 each hydrozone.
- (4) Within a hydrozone, low and moderate water use plants may be mixed, but this will require that all plants within that hydrozone be classified as moderate water use for MAWA calculations. High water use plants shall not be mixed with low or moderate water use plants in any hydrozone.

(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 use plants, and assigned a plant factor value of 0.9 for purposes of a water budget calculation, except as provided in subsection 3, below.
- (3) The wet surface area of a pool or spa with a cover shall be counted as an area of medium water use plants, and assigned a plant factor value of 0.5 for purposes of a water budget calculation.

Sec. B33-7. Components of a Landscape Project Submittal

A landscape project submittal shall include all of the following items, except where otherwise specified:

- (a) *Landscape and Irrigation Design Plans* (§ B33-8).
- (b) *Water Budget Calculations* (§ B33-9). Not required if turf limitation option (§ B33-5(b)), or native emphasis option (§ B33-5(c)), is utilized.
- (c) *Landscape Installation Report* (§ B33-10). Shall be submitted following installation of landscaping materials and irrigation hardware.
- (d) *Landscape Project Review Fee* (§ B33-13).

Sec. B33-8. Landscape and Irrigation Design Plans

A landscape and irrigation design plan shall comply with all of the following:

(a) The landscape and irrigation design plans shall incorporate all applicable elements of Section B33-6: Water-Efficient Design Elements.

(b) The landscape design portion shall be prepared by, and bear the signature of, a licensed landscape architect, licensed landscape contractor, or any other person authorized by the State of California to design a landscape.

(c) The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized by the State of California to design an irrigation system.

(d) The landscape design portion of the landscape and irrigation design plan, at a

minimum, shall comply with all of the following:

- (1) Provide basic project information, such as applicant name, site address, total landscape area and turf area (square feet), irrigation water source (e.g., municipal, well, recycled), retail water purveyor (if applicable), and project contacts.
- (2) Identify, in tabular form, all plants to be installed as part of the project. The table shall include the following:
 - i. Symbol (representing the plant on the plan).
 - ii. Common name.
 - iii. Botanical name.
 - iv. Container size.
 - v. Quantity.
 - vi. Type (e.g., grass, forb, succulent, vine, shrub, tree).
 - vii. Water-efficient species identification. All native and low water use plant species (defined in § B33-3) shall be so labeled.
 - viii. Unique physical specifications of plants (e.g., bare-root, field-potted, multi-trunk), if applicable.
- (3) Include the following:
 - i. General notes, planting notes, plant layout based on size at maturity, species, and symbol legend.
 - ii. Spacing of proposed plantings.
 - iii. Topography
 - iv. Trunk diameter of all existing trees whose trunk circumference is greater than 18.5 inches, measured 54 inches above grade.
 - v. Existing features to remain, such as trees, fencing, hardscape, etc.
 - vi. Existing features to be removed.

- vii. Identification of pertinent site factors such as sun exposure, microclimate, property lines, buildings, underground/above-ground utilities, existing drainage features, etc.
- viii. Proposed grading. For earthwork exceeding 150 cubic yards, or for cuts or fills exceeding five vertical feet, a grading permit will be required.
- ix. Seed mix, if applicable.

- (4) Delineate and label each hydrozone;
- (5) Identify each hydrozone as low water, moderate water, high water, or mixed (low/moderate) water use, as defined by WUCOLS;
- (6) Identify special landscape areas;
- (7) Identify type of mulch and application depth;
- (8) Identify type and wet surface area of water features;
- (9) Identify hardscapes (pervious and non-pervious); and
- (10) Contain the following statement: “I (We) have complied with the criteria of the County of Santa Clara Water Conservation in Landscaping Ordinance and applied them for the efficient use of water in the landscape design plan.”

(e) The irrigation design portion of the landscape and irrigation design plan, at a minimum, shall contain all of the following:

- (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 (We) have complied with the criteria of the County of Santa Clara 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 the County Grading Ordinance (Sections C12-400 through C12-556 of this 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 50%, or in any areas where slope stability may be compromised.

(g) *Wildfire Management.* The plant list shall not include any plant types that increase wildfire susceptibility. In designated *wildland urban interface* areas, 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 and this Code.

(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 County's National Pollutant Discharge Elimination System (NPDES) storm water discharge permit requirements and Division B11^{1/2} of this Code.

Sec. B33-9. Water Budget Calculation

A water budget must be completed by a landscape architect, certified irrigation designer, certified landscape irrigation auditor, landscape contractor, licensed professional engineer or other person who is authorized by the State of California to complete a water budget. Water budget calculations shall adhere to the following requirements:

- (a) The plant factor values shall be determined by the landscape professional, and shall indicate the water needs of included plant species under the specific soil and microclimate conditions of the installation site.
- (b) The wet surface area of a water feature shall be counted as an area of high water using plants, and assigned a plant factor value of 0.9 for purposes of a water budget calculation, except as provided in subsection (c) below.

- (c) The wet surface area of a pool or spa with a cover shall be counted as an area of medium water using plants, and assigned a plant factor value of 0.5 for purposes of a water budget calculation.
- (d) Where low and moderate water use plants are 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.
- (e) All *special landscape areas* shall be identified and their water use included in the water budget calculations.
- (f) The evapotranspiration adjustment factor (ETAF) for special landscape areas shall be 1.0. The ETAF for the remaining landscaped area shall be 0.7.
- (g) Irrigation system efficiency shall be greater than or equal to 70%.
- (h) Maximum applied water allowance (MAWA) shall be calculated using the equation below:

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

Where:

- MAWA = maximum applied water allowance (gallons per year)
- ETo = reference evapotranspiration (inches per year)
- 0.62 = conversion factor (acre-inches to gallons)
- 0.7 = evapotranspiration adjustment factor (ETAF)
- LA = landscape area including SLA (square feet)
- 0.3 = additional water allowance for SLA
- SLA = special landscape area (square feet)

- (i) A project applicant may consider effective precipitation (Eppt: 25% of annual precipitation) in tracking water use and may use the following equation to calculate the MAWA:

$$\text{MAWA} = (\text{ETo} - \text{Eppt}) (0.62) [(0.7 \times \text{LA}) + (0.3 \times \text{SLA})]$$

- (j) 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.

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

Where:

ETWU	=	estimated total water use (gallons per year)
ETo	=	reference evapotranspiration (inches)
PF	=	plant factor
HA	=	hydrozone area (square feet)
SLA	=	special landscape area (square feet)
0.62	=	conversion factor
IE	=	irrigation efficiency (minimum 0.70)

Sec. B33-10. Landscape Installation Report

A landscape installation assessment shall be conducted by a certified landscape professional within the 30 days following the completion of landscaping and irrigation system installation. The findings of the assessment shall be consolidated into a landscape installation report submitted to the Planning Office.

- (a) The landscape installation report shall include, but is not limited to: confirmation that the landscaping and irrigation system were installed as specified in the landscape and irrigation design plan, irrigation system tune-up, system pressure test with distribution uniformity, and reporting overspray or run off that causes overland flow. The report shall document any problems encountered, and shall identify and explain any discrepancies between the plan and installation.
- (b) The landscape installation report shall include the following statement: “The landscape and irrigation system has been installed as specified in the landscape and irrigation design plan and complies with the criteria of the County of Santa Clara Water Conservation in Landscaping Ordinance and the permit(s) issued by the County for the project.”

Sec. B33-11. Landscape and Irrigation System Maintenance

The landscape installation and irrigation system shall be maintained to ensure successful establishment following installation, and to ensure water use efficiency consistent with this division. Irrigation systems shall be tested, adjusted and repaired following the manufacturers’ specifications and the recommendations of the landscape professional.

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.

Sec. B33-12. Landscape Project Referral

The Planning Office shall refer the landscape project documents to any County department or other public agency whose interests or area of expertise warrants their participation in the review process. Referral agencies may include, but are not limited to, Santa Clara Valley Water District, County Fire Marshal, and Development Services Office.

CHAPTER III. OTHER PROVISIONS

Sec. B33-13. Fees.

The Board of Supervisors may, by resolution, adopt fees for compliance with this division. The fee for a landscape project associated with any project subject to architecture and site approval, building site approval, design review, grading permit, or use permit may be incorporated into the fee(s) for those applications.

Sec. B33-14. Public Education

(a) The County shall provide information to applicants regarding the design, installation, management and maintenance of water-efficient landscapes and irrigation systems.

(b) The County shall provide direction to applicants, property owners and other interested parties regarding the Santa Clara Valley Water District’s Landscape Survey Program, which evaluates irrigation efficiency and makes recommendations to improve water use management.

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Sec. B33-15. Enforcement

In addition to any other remedies provided in this Code, or any other applicable ordinance, law or regulation, a violation of this division shall be an infraction, and shall also be subject to administrative fines and penalties as provided in Division A37.

PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Clara, State of California on _____ by the following vote:

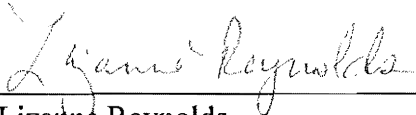
AYES:
NOES:
ABSENT:
ABSTAIN:

Dave Cortese, President
Board of Supervisors

ATTEST:

Maria Marinos
Clerk of the Board of Supervisors

APPROVED AS TO FORM AND LEGALITY:



Lizanne Reynolds
Deputy County Counsel