

# *City of Foster City*

## **ESTERO MUNICIPAL IMPROVEMENT DISTRICT**

CORPORATION YARD  
100 LINCOLN CENTRE DRIVE  
FOSTER CITY, CA 94404-1149  
(650) 285-8140 • FAX (650) 349-7204

January 28, 2010

Mr. Simon Eching  
California Department of Water Resources  
Office of Water Use Efficiency  
901 P Street, Third Floor  
P. O. Box 942836  
Sacramento, CA 94236-0001

**Subject: Notification of Estero Municipal Improvement District (EMID) Adoption of a Water Conservation in Landscaping Ordinance**

Dear Mr. Eching,

Pursuant to AB 1881, Section 65597, on or before January 31, 2010 each City and County within California is obligated to notify the California Department of Water Resources (DWR) as to whether that City or County is subject to the DWR updated model water-efficient landscape ordinance (DWR Model Ordinance), or whether that City or County has adopted its own water-efficient landscape ordinance.

The EMID is writing to inform you that, on January 4, 2010, we adopted our own Water Conservation in Landscaping (Ordinance). A copy of our Ordinance, and the resolution adopting the Ordinance, is attached.

Based on the following findings, we have concluded that our Ordinance addresses the needs of our local community and is at least as effective as the DWR Model Ordinance in conserving water:

- (1) The Ordinance applies to more accounts in our service area than the DWR Model Ordinance would.** The Ordinance applies to all new development and rehabilitated landscapes that are greater than 1,000 square feet (sq. ft.) and that require a landscape



permit, plan check or design review, or new or expanded water service. The thresholds specified in the Ordinance are lower than the DWR Model Ordinance thresholds of 2,500 sq. ft. for non-residential accounts and developer-installed single family projects, and 5,000 sq. ft. for homeowner-installed projects. The impact of lowering the landscape size thresholds is that more landscapes will be subject to the Ordinance and therefore, will be designed to be more water efficient than they may otherwise have been pursuant to the DWR Model Ordinance, with the result of increased water savings.

- (2) **The Ordinance limits the allowable turf area to 25% of the irrigated area, unless the project applicant chooses to develop a water budget.** Turf area restrictions result in lower water use landscape designs than a water budget based approach (i.e., the DWR Model Ordinance approach). By having a turf restriction as the default option, the Ordinance has been designed to minimize the use of turf in landscaping and result in increased water savings.
- (3) **The Ordinance requires that at least 80% of the plants in non-turf landscape areas shall be native plants, low-water using plants, or no-water using plants, unless the project applicant chooses to develop a water budget.** The DWR Model Ordinance does not specify plant requirements as it is based on a water budget approach. By having low water use plantings as a default requirement, the Ordinance has been designed to minimize the use of high-water using plants in landscaping and result in increased water savings.
- (4) **The Ordinance requires dedicated irrigation meters at all accounts with landscaping that exceeds 5,000 sq.ft.** The DWR Model Ordinance only requires separate meters for non-residential accounts that have irrigated landscaping in excess of 5,000 sq. ft. By requiring meters on all landscapes that are greater than 5,000 sq. ft., the Ordinance allows for better accounting of water use at large landscaped areas and provides data that the water purveyor, the local agency, and the property owner can cooperatively use to minimize high landscape water use at a given account.
- (5) **The Ordinance includes water budget parameters and values that are consistent with the DWR Model Ordinance.** By using the same parameters as the DWR Model Ordinance for purposes of developing the water budgets (e.g., plant factors, irrigation efficiency, etc), the Ordinance will necessarily be at least effective as the DWR Model Ordinance in terms of developing landscape water budgets and achieving water savings.



- (6) **The Ordinance includes landscape parameters that are consistent with the DWR Model Ordinance.** The Ordinance includes the same values as the DWR Model Ordinance for, among other things, establishing slope restrictions and width restrictions for turf, limiting irrigation times, and establishing minimum mulch requirements. By adopting the same requirements as the DWR Model Ordinance, the Ordinance will necessarily be at least as effective as the DWR Model Ordinance in terms of achieving water savings.
- (7) **The Ordinance has been simplified relative to the DWR ordinance.** The Ordinance is more simple and streamlined than the DWR Model Ordinance. As such, it will be easier for applicants to comply with the Ordinance and easier for the agency or water purveyor to implement and enforce the Ordinance. The Ordinance will therefore be at least as effective as the DWR Model Ordinance in terms of achieving water savings.

Our community has a strong commitment to conserving water. The Ordinance will apply to the majority of the new and rehabilitated landscapes within our jurisdiction that require a landscape permit, plan check or design review, or new or expanded water service. We will be working with the Project applicants to ensure that they install and maintain beautiful and water-efficient landscaping that also coincides with our stormwater best management practices and other goals. Please do not hesitate to contact me with any questions at (650) 286-3288.

Sincerely,

Handwritten signature of Ramon M. Towne in black ink, with the initials "RMT" written below it.

Ramon M. Towne  
Director of Public Works  
Estero Municipal Improvement District  
City of Foster City, San Mateo County  
650-286-3270  
[rtowne@fostercity.org](mailto:rtowne@fostercity.org)

cc. BAWSCA  
Norman Dorais, Public Works Maintenance Manager

Attachments:

Ordinance No. 128, as adopted by EMID on January 4, 2010



AN ORDINANCE OF THE ESTERO MUNICIPAL IMPROVEMENT DISTRICT ADDING CHAPTER 8.80 – OUTDOOR WATER CONSERVATION IN LANDSCAPING, OF TITLE 8, WATER AND SEWER SERVICE OF THE ESTERO MUNICIPAL IMPROVEMENT DISTRICT CODE

ESTERO MUNICIPAL IMPROVEMENT DISTRICT

IT IS SO ORDAINED by the Board of Directors of the Estero Municipal Improvement District (EMID) as follows:

Section 1. Chapter 8.80 of the EMID Code is hereby added to Title 8, Water and Sewer Service to read as follows:

**Chapter 8.80**

Outdoor Water Conservation in Landscaping

Sections

8.80.010	Title
8.80.020	Purpose
8.80.030	Applicability
8.80.040	Definitions
8.80.050	Water Conservation in Landscaping Ordinance Requirements
8.80.060	Compliance with Ordinance
8.80.070	Landscape Project Application
8.80.080	Outdoor Water Use Efficiency Checklist
8.80.090	Water Budget Calculation
8.80.100	Landscape Irrigation Design Plans
8.80.110	Landscape Audit Report
8.80.120	Landscape Irrigation Maintenance Standards
8.80.130	Stormwater Management
8.80.140	Provisions for Existing Landscape Over One Acre in Size
8.80.150	Penalties and Enforcement
8.80.160	Public Education

**8.80.010 Title**

The ordinance codified in this Chapter shall be known and may be cited as the "Estero Municipal Improvement District Outdoor Water Conservation in Landscaping Ordinance."

**8.80.20 Purpose**

This Ordinance is adopted in light of the following facts and circumstances, which are hereby found and declared by the District Board:

A. A reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and economy of the Estero Municipal Improvement District.

B. The California Water Conservation in Landscaping Act, also known as the State Landscape Model Ordinance ("Model Ordinance"), has been implemented by a Statewide Landscape Task Force which was overseen by the California Urban Water Conservation Council. The California Water Conservation in Landscaping Act was amended pursuant to AB 2717 (Chapter 682, Stats. 2004) and AB 1881 (Chapter 559, Stats. 2006).

C. AB 1881 requires cities and counties, no later than January 1, 2010, to adopt the updated Model Ordinance or an equivalent document which is "at least as effective as" the Model Ordinance in conserving water. In the event cities and counties do not take such action, the State's Model Ordinance will be deemed to be automatically adopted by statute.

D. The Local agency has developed this local Water Conservation In Landscaping Ordinance to meet the requirements and guidelines of the Model Ordinance and to address the unique physical characteristics, including average landscaped areas, within the District's jurisdiction in order to ensure that this Ordinance will be "at least as effective as" the Model Ordinance in conserving water.

E. Although this Water Conservation in Landscaping Ordinance is more streamlined and simplified than the Model Ordinance, the District Board finds that it is "at least as effective as" the Model Ordinance for the following reasons: (1) this Ordinance applies to more accounts than the Model Ordinance does because it lowers the size threshold for applicable landscapes from 2,500 square feet (or, in the case of single-family residences, from 5,000 square feet) to 1,000 square feet, to better reflect the typical landscaped areas located within the District's boundaries; (2) this Ordinance includes a default turf restriction of 25% of the irrigated area and requires that at least 80% of the plants in non-turf landscape areas be native plants, low-water using plants, or no-water using plants (unless the applicant elects to perform a water budget); and (3) this Ordinance expands the requirement for dedicated irrigation meters to all accounts with landscaping greater than 5,000 square feet. The Model Ordinance does not contain any such default turf restrictions or specified plant requirements and only requires dedicated irrigation meters on non-residential accounts with landscaping greater than 5,000 square feet.

F. Although this Water Conservation in Landscaping Ordinance is more streamlined and simplified than the Model Ordinance, the District Board further finds that it is "at least as effective as" the Model Ordinance because this Ordinance includes water budget parameters and values and landscape parameters that are consistent with the Model Ordinance. By using the same water budget parameters as the Model Ordinance (e.g., plant factors, irrigation efficiency), this Ordinance will be as effective as the Model Ordinance in developing landscape water budgets. By using the same landscape parameters as the Model Ordinance for, among other things, slope restrictions and width restrictions for turf, irrigation times, and minimum mulch requirements, this Ordinance will be at least as effective as the Model Ordinance in achieving water savings.

G. 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.

H. The San Francisco Public Utilities Commission has imposed an interim water supply limitation on its wholesale customers, including local water suppliers, until at least 2018.

I. Current supply and demand projections for the Bay Area Water Supply and Conservation Agency ("BAWSCA") member agencies indicate that, in the absence of increased water conservation, water demands will exceed available water supplies in 2015 and implementation of water conserving ordinances is one mechanism by which agencies can reduce future water demands and remain within existing supplies.

J. The District Board finds and determines that this Ordinance is consistent with the provisions requiring reductions in outdoor water use for landscaping in the California Green

Building Standards Code, as such provisions will 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.

K. The State Legislature has identified the provision of a more reliable water supply and the protection, restoration and enhancement of the Delta ecosystem as a high priority for the state. Pursuant to this, in November 2009, the State Legislature passed Senate Bill 7 (7th Extraordinary Session) requiring certain urban water suppliers to reduce per capita urban water use by 20% by the year 2020. Accordingly, the District Board finds that implementation of this Ordinance is consistent with the policies and goals established by the State Legislature in enacting SB 7 (7th Extraordinary Session).

L. The District Article XI, Section 7 of the California Constitution declares that a city or county may make and enforce within its limits all local, policy, sanitary, and other ordinances and regulations not in conflict with general laws.

M. The District has the power to perform all acts necessary to carry out fully the provisions of the County Water District Law (Water Code Section 31001), may establish rules and regulations for the distribution and use of water supplies (Water Code Section 31024), may adopt and enforce a comprehensive water conservation program to reduce potable water consumption and conserve supplies (Water Code Section 375), and may require as a condition of new service, that reasonable water-saving devices and water reclamation devices be installed to reduce water use (Water Code Section 31035).

N. The District has followed the procedures for notice, public participation and adoption set forth in Section 375 of the California Water Code.

O. The District Board finds and determines that this Ordinance is not subject to the California Environmental Quality Act (Public Resources Code Section 2100 et seq.) ("CEQA") pursuant to Section 15307 (the activity assures the maintenance, restoration, enhancement, or protection of a natural resource) and Section 15378(b)(2) (the activity is not a project as it involves general policy and procedure making) of the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, since it makes and implements policies and procedures to ensure that water resources are conserved by reducing water consumption through the establishment of a structure for planning, designing, installing, maintaining and managing water-efficient landscapes.

P. The adoption and enforcement of this Ordinance is necessary to manage the District's potable water supply in the short and long-term and to avoid or minimize the effects of drought and shortage within the District. This Ordinance is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare.

#### **8.80.030 Applicability**

A. The provisions of this Chapter shall apply to all of the following landscape projects:

1. Tier 1 Landscapes: All new construction and rehabilitated landscapes with irrigated landscape areas between 1,000 square feet and 2,500 square feet requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service.
2. Tier 2 Landscapes: All new construction and rehabilitated landscapes with irrigated landscape areas equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review or requiring new or expanded water service.
3. Existing landscapes, including existing cemeteries, shall only be subject to the provisions for existing landscapes provided for in Section XIII "Provisions for Existing Landscapes Over One Acre in Size;" and

4. New and rehabilitated cemeteries shall only be subject to the provisions of Section VIII "Water Budget Calculations", Section X "Landscape Audit Report", and Section XI "Landscape and Irrigation Maintenance Schedule."
- B. The provisions of this Chapter shall not apply to:
1. New construction and rehabilitated landscapes with irrigated landscape areas less than 1,000 square feet or that do not require a building or landscape permit, plan check or design review, or new or expanded water service;
  2. Landscapes, or portions of landscapes, that are only irrigated for an establishment period;
  3. Registered local, state or federal historical sites where landscaping establishes a historical landscape style, as determined by a public board or commission responsible for architectural review or historic preservation;
  4. Ecological restoration or mined-land reclamation projects that do not require a permanent irrigation system; or
  5. Community gardens or plant collections, as part of botanical gardens and arboretums open to the public; agricultural uses, commercial nurseries and sod farms.

#### 8.80.040 Definitions

- A. "Applied water" means the portion of water supplied by the irrigation system to the landscape.
- B. "Automatic irrigation controller" means 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. "Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
- D. "Certified irrigation designer" means 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.
- E. "Certified landscape irrigation auditor" means 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.
- F. "Certified professional" or "authorized professional" means a certified irrigation designer, a certified landscape irrigation auditor, a licensed landscape architect, a licensed landscape contractor, a 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.
- G. "Conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year

- H. "Drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
- I. "Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
- J. "Effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.
- K. "Establishment period" means 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.
- L. "Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in Section VIII "Water Budget Calculations."
- M. "ET adjustment factor" (ETAF) means a factor of 0.7, 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 Special Landscape Area shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes shall not exceed 0.8.
- N. "Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
- O. "Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
- P. "Hardscapes" means any durable material (pervious and non-pervious).
- Q. "Hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
- R. "Invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a Regional District noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.
- S. "Irrigation audit" means an in-depth evaluation of the performance of an irrigation system. 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.
- T. "Irrigation efficiency" (IE) means 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 Chapter is 70%. Greater irrigation efficiency can be expected from well-designed and maintained systems.
- U. "Irrigation survey" means 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.
- V. "Irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.

- W. "Landscape architect" means a person who holds a license to practice landscape architecture in California as further defined by the California Business and Professions Code, Section 5615.
- X. "Landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. 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, other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation), agricultural uses, commercial nurseries and sod farms.
- Y. "Landscape contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
- Z. "Landscape project" means the total area comprising the landscape area, as defined in this Chapter.
- AA. "Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
- BB. "Local agency" shall mean the Estero Municipal Improvement District or the City of Foster City, which are responsible for adopting and implementing the Chapter. The Local agency is also responsible for the enforcement of this Chapter, including but not limited to, approval of a permit and plan check or design review of a project, and approval of a new or expanded water service application.
- CC. "Local water purveyor" means the Estero Municipal Improvement District that provides retail water service.
- DD. "Low volume irrigation" means 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.
- EE. "Low water use plant" means a plant species whose water needs are compatible with local climate and soil conditions. 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.
- FF. "Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section VIII "Water Budget Calculations."
- GG. "Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
- HH. "Mulch" means 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.
- II. "Native plant" means a plant indigenous to a specific area of consideration. For the purposes of these guidelines, 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(ies) of the project's vicinity.
- JJ. "New construction" means the construction of a new building or structure containing a landscape or other new land improvement, such as a park, playground, or greenbelt without an associated building.

- KK. "No-water using plant" means a plant species with water needs that 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.
- LL. "Operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
- MM. "Overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).
- NN. "Overspray" means the irrigation water which is delivered beyond the target area.
- OO. "Permit" means an authorizing document issued by a District for new construction or rehabilitated landscapes.
- PP. "Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.
- QQ. "Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants.
- RR. "Precipitation rate" means the rate of application of water measured in inches per hour.
- SS. "Project applicant" means the individual or entity submitting a Project Landscape Application required under Section VI, to request a permit, plan check, or design review from the District or requesting new or expanded water service from the water district. A project applicant may be the property owner or his or her designee.
- TT. "Rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.
- UU. "Recreational area" means areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.
- VV. "Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants.
- WW. "Rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, design review, or requires a new or expanded water service application.
- XX. "Runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.
- YY. "Soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.
- ZZ. "Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.
- AAA. "Sprinkler head" means a device which delivers water through a nozzle.
- BBB. "Station" means an area served by one valve or by a set of valves that operate simultaneously.
- CCC. "Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.
- DDD. "Valve" means a device used to control the flow of water in the irrigation system.
- EEE. "Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).

- FFF. "WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

**8.80.050 Water Conservation in Landscaping Ordinance Requirements**

- A. All owners of new construction and rehabilitated landscapes of applicable sizes shall: (1) complete the Landscape Project Application (Section VI) and (2) comply with the Landscape and Irrigation Maintenance Schedule (Section XI) requirements of this Chapter.
- B. All owners of existing landscapes over one acre in size, even if installed before enactment of this Chapter, shall: (1) comply with District programs that may be instituted relating to irrigation audits, surveys and water use analysis, and (2) shall maintain landscape irrigation facilities to prevent water waste and runoff.

**8.80.060 Compliance with Chapter**

- A. The Local agency shall:
1. Provide the project applicant with the Chapter and Landscape Project Application requirements and the procedures for permits, plan checks, design reviews, or new or expanded water service;
  2. Review the Landscape Project Application submitted by the project applicant;
  3. Approve or deny the project applicant's Landscape Project Application submittal;
  4. Issue or approve a permit, plan check or design review that complies with the approved Landscape Project Application or approve a new or expanded water service application that complies with the approved Landscape Project Application;
  5. Submit a copy of the complete Landscape Project Application to the Local agency.
- B. The project applicant shall:
1. Prior to construction, submit all portions of the Landscape Project Application, except the Landscape Audit Report, to the Local agency; and
  2. After construction, submit the Landscape Audit Report portion of the Landscape Project Application to the Local agency.

**8.80.070 Landscape Project Application**

- A. The elements of a landscape must be designed to achieve water efficiency and will comply with the criteria described in this Chapter. In completing the Landscape Project Application, project applicants may choose one of two options to demonstrate that the landscape meets the Chapter's water efficiency goals. Regardless of which option is selected, the applicant must complete and comply with all other elements of the Chapter. The options include:
1. Planting restrictions:
    - a. The turf area may not be more than 25% of the landscape area [or no more than 250 square feet]; and
    - b. At least 80% of the plants in non-turf landscape areas shall be native plants, low-water using plants, or no-water using plants; or the
  2. Water Budget Calculation option (Section VIII).

- B. The Landscape Project Application shall include the following elements:
1. Project Information;
  2. Outdoor Water Use Efficiency Checklist (Section VII);
  3. Water Budget Calculations, if applicant selects to use a water budget approach rather than comply with the turf area limitations or specified plant type restrictions (Section VIII);
  4. Landscape and Irrigation System Design Plans (Section IX); and
  5. Landscape Audit Report (Section X).

#### **8.80.080 Outdoor Water Use Efficiency Checklist**

Local agency will develop an Outdoor Water Use Efficiency Checklist (Checklist), based on the criteria described below. For Tier 1 projects, either the project applicant or a certified or authorized professional shall complete the Checklist and submit it to the Local agency along with the Landscape and Irrigation Design Plan. For Tier 2 projects, the Checklist shall be completed by a certified or authorized professional and submitted to the Local agency along with the Landscape and Irrigation Design Plan.

- A. Plant Material
1. Each hydrozone shall have plant materials with similar water use that are selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.
  2. The turf area shall not be more than 25% of the landscape area [or no more than 250 square feet], unless the project applicant develops a site-specific water budget and the ETWU of the landscape area does not exceed the MAWA.
  3. Turf shall not be planted on slopes greater than 25% or in areas that are less than eight feet wide, unless irrigated with subsurface irrigation or a low volume irrigation system.
  4. At least 80% of the plants in non-turf landscape areas shall be native plants, low-water using plants, or no-water using plants, unless the project applicant develops a site-specific water budget and the ETWU of the landscaped area does not exceed the MAWA.
  5. Fire-prone plant materials and highly flammable mulches should be avoided.
  6. The use of invasive and/or noxious plant species is strongly discouraged.
  7. The architectural guidelines of a common interest development shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.
- B. Mulch  
A minimum two-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas, although a three-inch layer is recommended.
- C. Irrigation System  
An irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance.
1. Dedicated landscape water meters shall be required for landscape areas greater than 5,000 square feet and are highly recommended for landscape areas greater than 2,500 square feet.
  2. Tier 2 Landscapes are required to have automatic irrigation controllers that utilize either evapotranspiration or soil moisture sensor data for irrigation scheduling.

3. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems.
  4. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.
  5. Low volume irrigation required in mulched areas, in areas with slope greater than 25%, and within 24-inches of a non-permeable surface, or in narrow or irregularly shaped areas that are less than eight feet in width in any direction.
  6. Average irrigation efficiency is assumed to be 70%. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 70%.
  7. Irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or otherwise renders irrigation unnecessary.
- D. Hydrozone
1. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
  2. Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
  3. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.
  4. Individual hydrozones that mix plants with different water uses may be allowed if a water budget is performed, and the plant factor calculation is based on the proportion of the respective plant water uses or the plant factor of the higher water using plant is used.
- E. Water Features
1. Recirculating water systems will be used for water features.
  2. The surface area of a water feature will not exceed 10% of the landscape area and will be counted as a high-water using plant for purposes of a water budget calculation.
  3. Pool and spa covers are highly recommended.
- F. Soil Amendments
- Soil amendments, such as compost, shall be incorporated according to the soil conditions at the project site and based on what is appropriate for the selected plants.

#### **8.80.090 Water Budget Calculations**

Project applicant may elect to complete a water budget calculation for the landscape project. A Tier 1 water budget may be developed and completed by the project applicant. A Tier 2 water budget calculation must be completed by a certified or authorized professional. Water budget calculations, if prepared, shall adhere to the following requirements:

- A. The plant factor used shall be from WUCOLS. The plant factor ranges from 0.0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.
- B. All water features shall be included in the high water use hydrozone.
- C. All Special Landscape Areas (SLA) shall be identified and their water use included in the water budget calculations.
- D. The reference evapotranspiration adjustment factor (ETAF) for SLA shall not exceed 1.0. The ETAF for all other landscaped areas shall not exceed 0.7.
- E. Irrigation system efficiency shall be greater than or equal to 70%.

- F. Maximum Applied Water Allowance (MAWA) shall be calculated using the equation below:

$$MAWA = (ET_o) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$$

Where:

MAWA = Maximum Applied Water Allowance (gallons per year)

ET<sub>o</sub> = Reference Evapotranspiration (inches per year)

0.62 = Conversion Factor (to gallons)

0.7 = Reference Evapotranspiration Adjustment Factor (ETAF)

LA = Landscape Area including SLA (square feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (square feet)

- G. A project applicant may consider Effective Precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate the MAWA:

$$MAWA = (ET_o - Eppt) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$$

- H. Estimated Total Water Use (ETWU) will be calculated using the equation below. The sum of the ETWU calculated for all hydrozones will not exceed the MAWA.

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

Where:

ETWU = Estimated Total Water Use per year (gallons)

ET<sub>o</sub> = Reference Evapotranspiration (inches)

PF = Plant Factor from WUCOLS (see Section 491)

HA = Hydrozone Area [high, medium, and low water use areas] (square feet)

SLA = Special Landscape Area (square feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (minimum 0.70)

### 8.80.100 Landscape and Irrigation Design Plans

- A. Tier 1 Landscapes: The Landscape and Irrigation Design Plan may be prepared by, and bear the signature of, the project applicant, or that of a certified or authorized professional.
- B. Tier 2 Landscapes: The components of the Landscape and Irrigation Design Plan shall be prepared as follows:
1. The landscape design portion shall be prepared by, and bear the signature of, a licensed landscape architect, licensed landscape contractor, or that of a certified or authorized professional; and
  2. The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or that of a certified or authorized professional.

- C. The landscape design portion of the Landscape and Irrigation Design Plan, at a minimum, shall:
1. Delineate and label each hydrozone;
  2. Identify each hydrozone as low, moderate, high water, or mixed water use;
  3. Identify Special Landscape Areas (i.e., recreational areas; areas permanently and solely dedicated to edible plants; areas irrigated with recycled water);
  4. Identify type of mulch and application depth;
  5. Identify type and surface area of water features;
  6. Identify hardscapes (pervious and non-pervious); and
  7. 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 and Irrigation Design Plan."
- D. The irrigation design portion of the Landscape and Irrigation Design Plan, at a minimum, shall contain:
1. Location and size of separate water meters for landscape;
  2. 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;
  3. Static water pressure at the point of connection to the public water supply;
  4. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
  5. Irrigation schedule;
  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 Landscape and Irrigation Design Plan."
- E. Grading
- If the Landscape Project will be graded, then the grading shall be designed to minimize soil erosion, runoff, and water waste. All grading should be conducted to:
1. Maintain all irrigation and normal rainfall within property lines and avoid drainage on to non-permeable hardscapes;
  2. Avoid disruption of natural drainage patterns and undisturbed soil;
  3. Avoid soil compaction in landscape areas; and
  4. Be consistent with Local agency grading requirements.

#### 8.80.110 Landscape Audit Report

- A. Tier 1 Landscapes: Landscape irrigation audits for new or rehabilitated landscapes installed after January 4, 2010 shall be conducted after the landscaping and irrigation systems have been installed. The audit may be conducted by the project applicant or by a certified landscape irrigation auditor.
- B. Tier 2 Landscapes: Landscape irrigation audits for new or rehabilitated landscapes installed after January 4, 2010 shall be conducted by a certified landscape irrigation auditor after the landscaping and irrigation system have been installed.
- C. The Landscape Audit Report shall include, but is not limited to: inspection to confirm that the landscaping and irrigation system were 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.

- D. The Landscape Audit 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 Chapter and the permit".
- E. The Local agency shall administer on-going programs that may include, but not be limited to, post-installation landscape inspection, irrigation water use analysis, irrigation audits, irrigation surveys and water budget calculations to evaluate compliance with the MAWA.

#### **8.80.120 Landscape and Irrigation Maintenance Schedule**

Landscapes shall be maintained to ensure water use efficiency.

- A. A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; weeding in all landscape areas; and removing obstructions to emission devices.
- B. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.
- C. A Project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

#### **8.80.130 Stormwater Management**

Stormwater best management practices should be implemented into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration and should be consistent with the Local agency and county stormwater management requirements.

#### **8.80.140 Provisions for Existing Landscapes Over One Acre in Size**

This section shall apply to all existing landscapes that were installed before January 4, 2010 and are over one acre in size.

- A. Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.
  - 1. For landscapes that have a water meter, the Local agency shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the MAWA for existing landscapes. The MAWA for existing landscapes shall be calculated as:  

$$\text{MAWA} = (0.8) (\text{ET}_o)(\text{LA})(0.62).$$
  - 2. For landscapes that do not have a meter, the Local agency shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.
  - 3. All landscape irrigation audits for existing landscapes that are greater than one acre in size shall be conducted by a certified landscape irrigation auditor.
- B. Water Waste Prevention.  
 The Local agency shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures.

**8.80.150 Penalties**

District may establish and administer penalties to the Project applicant for non-compliance with this Chapter to the extent permitted by law.

**A. Violation and Notice of Correction.**

It is unlawful for any person, firm, partnership, association, or corporation subject to the requirements of this Chapter to fail to comply with the water use efficiency requirements or to alter or replace the fixtures and appliances required by this Chapter with other noncompliant fixtures or appliances after the completion of construction or remodel. Whenever the chief building official determines that a violation of this Chapter has occurred, the chief building official may serve a notice of correction on the owner(s) of the property on which the violation is situated. The owner(s) of record shall have ninety (90) days to take corrective action.

**B. Violation—Misdemeanor.**

No person shall violate any provision or fail to comply with any requirement of this Chapter. A person violating a provision or failing to comply with any of the mandatory requirements of this Chapter is guilty of a misdemeanor. (Ord. 2 § 1(part), 1971: prior code §1-301)

**C. Violation—Penalty.**

A person convicted of a misdemeanor under this Chapter, unless specific provision is otherwise made, shall be punished by a fine of not more than five hundred dollars or by imprisonment in the county jail for a period of not more than six months, or both. (Ord. 2 §1 (part), 1971: prior code §1-302)

**D. Separate offenses.**

Each person is guilty of a separate offense for each and every day during any portion of which the violation of this Chapter is committed, continued or permitted by that person. (Ord. 2 § 1(part), 1971: prior code §1-303)

**E. General penalty—Continuing violations.**

In addition to the penalties provided herein, any condition caused or permitted to exist in violation of a provision of this Chapter is a public nuisance and may be summarily abated as such. Each day that the condition continues it is a new and separate offense. Pursuant to Section 38773.5 of the California Government Code, in any action, administrative proceeding, or special proceeding brought to abate a public nuisance, the prevailing party shall be entitled to reasonable attorneys' fees. Recovery of attorneys' fees shall be limited as follows:

1. To those actions or proceedings where the Local agency has elected to recover attorneys' fees at the initiation of such actions or proceedings.
2. The amount of attorneys' fees in any action, administrative action, or special proceeding awarded to a prevailing party shall not exceed the amount of reasonable attorneys' fees incurred by the Local agency in the action or proceeding. (Ord. 506 § 1, 2003: Ord. 2 § 1 (part), 1971: prior code § 1-304)

**F. Code violations.**

Notwithstanding any other provision of this Chapter, whenever violation of any section contained in this Chapter is punishable as a misdemeanor, the prosecuting attorney having jurisdiction to prosecute such misdemeanor may specify that the offense is an infraction and proceed with prosecution as an infraction, unless the defendant, at the time of his or her arraignment or plea, objects to the offense being made an infraction, in which event the complaint

shall be amended to charge a misdemeanor and the case shall proceed on a misdemeanor complaint. (Ord. 319 § 1, 1986)

**8.80.160 Public Education**

- A. The Local agency shall provide information 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 use signs and written information to demonstrate the principles of water-efficient landscapes that are described in this Chapter.

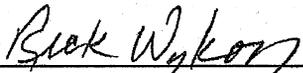
Section 2. Severability. If any section, subsection, sentence, clause, or phrase of this Chapter is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Chapter. The District Board hereby declares that it should have adopted the Chapter and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

Section 3. Taking Effect. This Chapter shall take effect and be in force thirty (30) days from and after its adoption.

Section 4. Posting. Within fifteen (15) days after the adoption of this Chapter, the District Secretary shall have it posted in three (3) public places designated by the District Board.

PASSED AND ADOPTED as a Chapter of the Estero Municipal Improvement District at a regular meeting of the Board of Directors held on the 4th day of January, 2010, by the following vote:

- AYES: Directors Bronitsky, Frisella, Kiesel, Koelling, and President Wykoff
- NOES: None
- ABSENT: None
- ABSTAIN: None

  
 \_\_\_\_\_  
 RICK WYKOFF, PRESIDENT

ATTEST:

  
 \_\_\_\_\_  
 DORIS L. PALMER, DISTRICT SECRETARY

## CERTIFICATE OF POSTING

I, Shannon Templin, hereby certify as follows:

That I am, and at all time herein mentioned, was the duly acting and qualified Deputy City Clerk/District Secretary of the **City of Foster City/Estero Municipal Improvement District**, Foster City, San Mateo County, California.

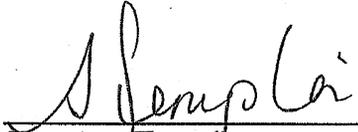
I further certify to the proper posting of:

Ordinance No. 128 -- An Ordinance of the Estero Municipal Improvement District Adding Chapter 8.80 -- Outdoor Water Conservation in Landscaping, of Title 8, Water and Sewer Service of the Estero Municipal Improvement District [By motion further reading waived]

in the following four public places of the **City of Foster City/Estero Municipal Improvement District**, Foster City, San Mateo County, California:

1. Federal Post Office, Charter Square  
1050 Shell Boulevard
2. Recreation Center Lobby  
650 Shell Boulevard
3. Council Chambers (not a mandatory posting site)  
620 Foster City Boulevard
4. Foster City Public Library  
1000 E. Hillsdale Boulevard

Executed at the **City of Foster City/Estero Municipal Improvement District**, Foster City, San Mateo County, California this January 6, 2010.

  
\_\_\_\_\_  
Shannon Templin  
Deputy City Clerk/District Secretary