ORDINANCE NO. 2009-259

AN ORDINANCE OF THE TOWN OF WINDSOR ADDING ARTICLE 9 WATER EFFICIENT LANDSCAPE TO TITLE XII, CHAPTER 3 OF THE TOWN'S MUNICIPAL CODE

THE TOWN COUNCIL OF THE TOWN OF WINDSOR DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Article 9, entitled Water Efficient Landscape, is hereby added to Title XII Windsor Water District, Chapter 3 Water, of the Windsor Municipal Code as follows:

ARTICLE 9

WATER EFFICIENT LANDSCAPE

12.3.900 Purpose

Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use. This policy protects local water supplies through the implementation of a whole systems approach to design, construction, installation and maintenance of the landscape resulting in water conserving climate-appropriate landscapes, improved water quality and the minimization of natural resource inputs.

12.3.905 Applicability

a. After January 1, 2010, this ordinance shall apply to all of the following:
   1. Private development projects (including single family residential subdivisions of 5 or more lots, as well as multi family residential, commercial, industrial, and institutional development) involving new construction or rehabilitation of landscape areas of 2500 square feet or greater in area and which are subject to Site Plan and Design Review approval.
   2. Public agency projects of the Town of Windsor involving new construction or rehabilitation of landscape areas of 2500 square feet or greater in area.
   3. Approved projects (including residential subdivisions of 5 or more lots, as well as commercial, industrial, and institutional development) which have not yet submitted for initial plan check of improvement plans and which involve new construction or rehabilitation of landscape areas of 2500 square feet or greater in area.
b. This ordinance does not apply to:
   1. Single family residential subdivisions of 4 or fewer lots, except that prior to the start of on-site construction or soil disturbance, and prior to the issuance of a building permit, the applicant shall submit an informal implementation plan, or an informal landscape and

irrigation system design plan, or the equivalent, which demonstrates how the applicant will meet the intent of this chapter.

2. Registered local, state or federal historical landscape area;
3. Ecological restoration or mined-land reclamation projects that do not require a permanent irrigation system;
4. Plant collections, as part of botanical gardens and arboretums open to the public.

12.3.910 Definitions

a. The terms used in this article shall have the following meanings:
   1. *Backflow Prevention Device* means an approved device installed to Town standards which will prevent backflow or back-siphonage into the Town's potable water system.
   2. *Booster Pump* means a pump used where the normal water system pressure is low and needs to be increased.
   3. *Check Valve* means a valve located under a sprinkler head or other location in the irrigation system that holds water in the system and prevents drainage from sprinkler heads when the irrigation system is off.
   4. *Common Interest Development* means community apartment projects, condominium projects, planned developments, and stock cooperatives per California Civil Code Section 1351.
   5. *Compost* means the product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth. Compost contains plant nutrients and has the unique ability to improve the chemical, physical, and biological characteristics of soils.
   6. *Ecological Restoration Project* means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
   7. *Effective Precipitation* means the portion of total precipitation which becomes available for plant growth and that is used by the plants.
   8. *Emitter* means a drip irrigation fittings emission device that delivers water slowly from the system to the soil.
   9. *ET Adjustment Factor* means a factor of 0.6, 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.
   10. *Evapotranspiration rate* means the quantity of water loss to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues) during a specified time, usually expressed in inches of water per unit of time.
   11. *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.
   12. *Hardscapes* means any durable material (pervious and non-pervious).
   13. *Head to Head Coverage* means full spray coverage from one sprinkler head to the next.
   14. *High-Flow Sensor* means a device for sensing the rate of fluid flow.
   15. *High-Water-Use Plants* means turf, annuals, container plantings, and other plants recognized as high-water-use by the *Water Use Classification of Landscape Species* document (http://www.owue.water.ca.gov/docs/wucols00.pdf), as it currently exists or may be amended in the future.

16. *Hydrozone* means a portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule.
17. *Infiltration Rate* means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).
18. *Invasive Plant Species* means species of plants not historically found in California and/or that spread outside cultivated areas and can damage environmental or economic resources as determined by the California Invasive Plant Council (www.cal-ipc.org).
19. *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 ordinance is 0.71.
20. *Irrigation Meter* means a separate meter that measures the amount of water used for items such as lawns, washing exterior surfaces, washing vehicles, filling pools, etc.
21. *Isolation Valves* means valves used to isolate a portion of the piping system.
22. *Landscaped Area* means the entire parcel less the building footprint, driveways, and non-irrigated portions of parking lots, hardscapes-such as decks and patios, and other non-porous areas. Water features are included in the calculation of the landscaped area. Areas dedicated to edible plants, such as orchards or vegetable gardens are not included. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
23. *Lateral Line* means non-pressurized pipe that is located downstream of an irrigation valve (class 200 or equivalent is not acceptable).
24. *Low-Head Drainage* means water that flows out of the system after the valve turns off due to elevation changes within the system.
25. *Low-Water-Use Plants* means Mediterranean region and California native trees, shrubs and groundcovers such as rosemary, juniper, most native oaks, and other plants recognized as low-water-use by the Water Use Classification of Landscape Species document (http://www.owue.water.ca.gov/docs/wucols00.pdf), as it currently exists or may be amended in the future.
26. *Main Line* means the pressurized pipeline that delivers water from the water source to the valve or outlet.
27. *Maximum Applied Water Allowance (MAWA)* means for design purposes, the upper limit of annual applied water for the established landscaped. It is based upon the area's reference evapotranspiration, the ET adjustment factor, and the size of the landscape area.
28. *Microclimate* means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density or proximity to reflective surfaces.
29. *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.
30. *Moderate Water Use Plants* means ornamental trees, shrubs, ground covers, and other plants recognized as moderate-water-use by the Water Use Classification of Landscape

Species document (http://www.owue.water.ca.gov/docs/wucols00.pdf), as it currently exists or maybe amended in the future.

31. *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.
32. *Operating Pressure* means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate, usually indicated at the base of the sprinkler.
33. *Overhead Irrigation* means those systems that deliver water through the air (e.g., pop-ups, impulse sprinklers, spray heads, rotors, micro-sprays, etc).
34. *Overspray* means any irrigation water which is delivered beyond the landscaped target area; wetting pavements, walks, structures, or other non-landscaped areas.
35. *Pervious* means any surface or material that allows the passage of water through the material and into the underlying soil.
36. *Plant Factor* means a factor that, when multiplied by reference evapotranspiration (ETo), estimates the amount of water used by plants. Plant factors cited in this ordinance are derived from the Department of Water Resources 2000 publication "*Water Use Classification of Landscape Species*".
37. *Point of Connection* means the point at which an irrigation system taps into the main water supply line.
38. *Point Source 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.
39. *Precipitation Rate* means the rate of application of water measured in inches per hour.
40. *Pressure Regulation* means a device or valve that automatically reduces the pressure in a pipe.
41. *Project Applicant* means the individual or entity submitting a Landscape Documentation Package, to request a permit, plan check or design review from the local agency. A project applicant may be the property owner or his or her designee.
42. *Rain Sensor* means an irrigation system component which automatically shuts off and suspends the irrigation system when it rains.
43. *Recreational Area* means areas dedicated to active play or recreation such as sports fields, school yards, picnic grounds, golf courses, or other areas with intense foot traffic where turf provides a playing surface.
44. *Recycled Water* means tertiary treated water, which results from the treatment of wastewater, and which conforms to the definition of disinfected tertiary recycled water in accordance with state law. Recycled water is suitable for non-potable direct beneficial uses such as landscape irrigation and water features.
45. *Reference Evapotranspiration (ETo)* means a standard measurement of environmental parameters which affect the water use of plants and is an estimate of the evapotranspiration of a large field of four to seven-inch tall, cool-season turf grass that is well watered.
46. *Rehabilitated Landscape* means any re-landscaping project that requires a building or grading permit, plan check or design review.

47. *Runoff* means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.
48. *Soils Laboratory Report* means the analysis of a soil sample to determine nutrient content, composition and other characteristics, including contaminants.
49. *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.
50. *Sprinkler Head* means a device that delivers water to the landscape through a spray nozzle.
51. *Static Water Pressure* means the pipeline or municipal water supply pressure when water is not flowing.
52. *Station* means an area served by one valve or by a set of valves that operate simultaneously.
53. *Submeter* means a separate meter that is located on the private side of the water system and is plumbed to measure all water that flows only through the irrigation system. This meter is to be used by the owner to monitor irrigation water use and will not be read by the Town.
54. *Swing Joint* means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.
55. *Valve* means a device used to control the flow of water in the irrigation system.
56. *Valve Manifold* means a one-piece manifold for use in a sprinkler valve assembly that includes an intake pipe having a water inlet and a plurality of ports adapted for fluid connection to inlets.
57. *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). The surface area of water features is included in the high water use hydrozone of the landscape area.
58. *Weather Based or Sensor Based Irrigation Control Technology* means an irrigation controller that uses local or historical weather data and site specific landscape parameters to estimate or measure depletion of available plant soil moisture in order to operate an irrigation system, and make irrigation schedule adjustments, including run times and required cycles, throughout the irrigation season without human intervention.
59. *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.

12.3.915 Landscape Design Plan

a. For each landscape project subject to this chapter applicants shall submit a landscape design plan in accordance with the following:
   1. Amendments, Mulching and Soil Conditioning
      (A) A minimum of 8"of non-mechanically compacted soil shall be available for water absorption and root growth in planted areas.

(B) Incorporate compost or natural fertilizer into the soil to a minimum depth of 8" at a minimum rate of 6 cubic yards per 1000 square feet or per specific amendment recommendations from a soils laboratory report.

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

2. Plants
   (A) Selected plants shall not cause the Estimated Water Use to exceed the Maximum Applied Water Allowance (see calculation in Appendix A)
   (B) Plants with similar water use needs shall be grouped together in distinct hydrozones. Where irrigation is required, the distinct hydrozones shall be irrigated with separate valves.
   (C) Low and moderate water use plants can be mixed, but the entire hydrozone will be classified as moderate water use for MAWA calculations.
   (D) High water use plants shall not be mixed with low or moderate water use plants.
   (E) All non-turf plants shall be selected, spaced, and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.
   (F) Turf shall not be planted in the following conditions:
      (1) Slopes exceeding 10%
      (2) Planting areas 8 feet wide or less
      (3) Street medians, traffic islands, planter strips or bulbouts of any size
      (4) Front yard landscape of single family residential subdivisions of 5 or more lots, where backyard landscape is not developer installed.
   (G) Invasive plants as listed by the California Invasive Plant Council are prohibited.
   (H) 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, and shall reference compliance to Town regulations regarding replacement plantings and maintenance.
3. Water Features
   (A) Recirculating water systems shall be used for water features.
   (B) Recycled water shall be used when available onsite.

12.3.920 Irrigation Design Plan

a. For each landscape project subject to this chapter applicants shall submit an irrigation design plan that is designed and installed to meet irrigation efficiency criteria as described in Appendix A (MAWA) and in accordance with the following:
   1. Dedicated irrigation meter or submeter must be specified
   2. Irrigation systems with meters 1 ½" or greater require a high-flow sensor that can detect high flow conditions and have the capabilities to shut off the system.
   3. Isolation valves shall be installed at the point of connection and before each valve or valve manifold
   4. Weather-based or other sensor based self-adjusting irrigation controllers shall be required
   5. Rain sensors shall be installed for each irrigation controller

6. Pressure regulation and/or booster pumps shall be installed so that all components of the irrigation system operate at the manufacturer's recommended optimal pressure
7. Irrigation system shall be designed to prevent runoff or overspray onto non-targeted areas
8. Point source or subsurface irrigation is required for
   (A) areas where plant height at maturity will affect the uniformity of an overhead system; and
   (B) narrow or irregularly shaped areas less than (8) eight feet in width in any direction
9. Minimum 24" setback of overhead irrigation is required where turf is directly adjacent to a continuous hardscape that flows into the curb and gutter. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material.
10. Slopes greater than 15% shall be irrigated with point source or other low-volume irrigation technology
11. A single valve shall not irrigate hydrozones that mix high water use plants with moderate or low water use plants
12. Trees shall be placed on separate valves except when planted in turf areas
13. Sprinkler heads, rotors and other emission devices on a valve shall have matched precipitation rates
14. Head to head coverage is required unless otherwise directed by the manufacturer's specifications
15. Swing joints or other riser protection components are required on all risers
16. Check valves shall be installed to prevent low-head drainage

12.3.925 Documentation For Compliance

a. The following documentation is to be presented to the Town at each of the three steps of review defined below. This documentation is required for compliance with this policy.
   1. FINAL DESIGN REVIEW
      The following shall be submitted with a Design Review application or with a Conditional Use Permit application when involving design review:
      (A) A completed Appendix A, Maximum Applied Water Allowance
      (B) A landscape planting design plan that accurately and clearly identifies and depicts:
         (1) Recreational areas;
         (2) Areas permanently and solely dedicated to edible plants;
         (3) New and existing trees, shrubs, groundcovers, turf, and any other planting areas;
         (4) Plants by botanical name and common name;
         (5) Plant sizes and quantities;
         (6) Property lines, new and existing building footprints, streets, driveways, sidewalks and other hardscape features
         (7) Pools, fountains, and water features, with their respective surface areas
         (8) Each hydrozone by number, letter, or other method
         (9) Each hydrozone as low, moderate, high water or mixed water use
         (10) Types and quantities of soil amendments used
         (11) Location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater

(12) Any applicable rain harvesting or catchment technologies
(13) Areas irrigated with recycled water

(C) A conceptual irrigation design plan or statement which describes irrigation methods and design actions that will be employed to meet the irrigation specifications of this chapter.

2. BUILDING PERMIT/PLAN CHECK

The following shall be reviewed and approved prior to a building permit being issued:

(A) Appendix A and the planting design plan as submitted at step 1 in connection with the Design Review or Conditional Use Permit application.

(B) The irrigation plan drawn at the same scale as the planting plan that accurately and clearly identifies and depicts:
(1) Irrigation system point of connection with location and size of separate water meters for irrigation;
(2) Static water pressure as tested at the point of connection to the public water supply or as derived from nearest fire hydrant. The standard Public Works schedule hydrant pressure testing fee shall apply when Town field staff is deployed to obtain necessary hydrant pressures.
(3) Flow rate (gallons per minute), precipitation rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
(4) Irrigation system components, e.g. controller, pipe, remote-control valves, sprinklers and other application devices, rain shut-off device, check valves, pressure regulating devices, backflow prevention devices.

(C) Appendix B, the Hydrozone Table

(D) Where slopes exceed 10%, a grading plan drawn at the same scale as the planting plan that accurately and clearly identifies and depicts:
(1) finished grades;
(2) drainage patterns;
(3) pad elevations;
(4) spot elevations; and
(5) stormwater retention improvements, if applicable.

(E) The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan" and shall bear the signature of a licensed professional as authorized by law.

3. COMPLETION OF INSTALLATION

Upon installation and completion of the landscape, applicant shall submit Appendix C, the Certificate of Completion.

(A) The certificate must be accompanied by an irrigation audit report completed by a certified landscape irrigation auditor that contains the following:
(1) Operating pressure of the irrigation system
(2) Distribution uniformity of overhead irrigation
(3) Precipitation rate of overhead irrigation
(4) Report of any overspray or broken irrigation equipment
(5) Irrigation schedule including:
(a) Plant establishment irrigation schedule

(b) Regular irrigation schedule by month including: plant type, root depth, soil type, slope factor, shade factor, irrigation interval (days per week), irrigation runtimes, number of start times per irrigation day, gallons per minute for each valve, precipitation rate, distribution uniformity and monthly estimated water use calculations.

(B) An irrigation maintenance schedule timeline must be attached to the certificate of completion that includes: routine inspections, adjustment and repairs to the irrigation system, aerating and dethatching turf areas, replenishing mulch, fertilizing, pruning, and weeding.

(C) A final inspection shall be performed by Town staff to verify compliance with the approved plans as follows:

(1) Prior to inspection, the applicant shall submit a completed Landscape Inspection Application and pay the appropriate Landscape Inspection fee.

(2) Applicant shall provide a minimum of three Town working days advance notice for all inspections.

(3) Inspections can be requested for either morning or afternoon during regular business hours. Specific times of the day cannot be scheduled.

(4) Building permit final approval shall not be completed until the landscape inspection is approved.

(5) An extension of the building permit to complete landscape and irrigation installation shall be requested and must be approved by the Building Official prior to occupancy.

(6) The standard fee for Landscape Re-inspection shall apply if the applicant does not pass the initial landscape final inspection.

(7) Inspections shall not be construed to approve a violation of the provisions of this chapter or other provisions of this code.

(8) Inspections presuming to give authority to violate or cancel the provisions of this chapter or other provisions of this code shall not be valid.

12.3.930 Fees

a. The Town Council shall establish a schedule of fees for the processing of landscape inspections.

12.3.935 Other Provisions

a. The Planning Director will consider and may allow the substitution of design alternatives and innovation which may equally reduce water consumption for any of these requirements.

b. The Planning Director will accept documentation methods, water allowance determination, and landscape and irrigation design requirements of the State of California Model Water Efficient Landscape Ordinance instead of sections 12.3.915 and 12.3.920 of these requirements where it can be demonstrated that the State procedure will more effectively address the design requirements of the project.

12.3.940 Provisions for Appeal

a. The applicant or any affected person may appeal the final decision of staff regarding plan check or final inspection to the Planning Director, or a final decision of the Planning Director to the Town Manager by filing a written notice of appeal with the Town Manager's Office within ten Town working days of the date of the decision. The applicant must pay the standard Planning schedule appeal fee and include receipt of payment along with the written notice of appeal. The decision of the Town Manager shall be final and may not be appealed to the Town Council. An appeal regarding plan check must be submitted prior to the installation of the landscape or it will be deemed to have been waived.

12.3.945 Forms

The following forms shall be submitted as outlined in section 12.3.925:

Appendix A

Maximum Applied Water Allowance

The following calculations will help you determine your site specific water budget and establish a planting mix that will allow you to meet your water budget. Your Estimated Total Water Use must be less than your Maximum Applied Water Allowance.

1.) **Maximum Applied Water Allowance (MAWA)**

MAWA = (ETo) (0.62)[(0.6x LA) + (0.4 x SLA)]

Where:
ETo = Annual Net Reference Evapotranspiration (inches)
0.6 = ET Adjustment Factor
LA = Landscaped Area (square feet)
0.62 = Conversion factor (to gallons per square foot)
SLA = Portion of the landscape area identified as Special Landscape Area (square feet)
0.4 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.6 = 0.4)

A.) Net Evapotranspiration Calculation

(Annual ETo)				
(Annual Rainfall)	x	.25	=	*(Effective Rainfall)*

Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall = ____

B.) Adjusted Landscape Area Calculation

(Landscaped Area)	x 0.6 *Adjustment Factor*	= ____
(Special Landscaped Area)	x 0.4 *Adjustment Factor*	= ____

Sum of Adjusted Landscape Area = ____

MAWA = ____ x 0.62 x ____ = ____

2.) **Estimated Total Water Use (ETWU)**

A.) Net Evapotranspiration Calculation

Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall = ____

B.) Adjusted Landscape Area Calculation

(Low water use plant sqft)	x 0.3	= ____
(Moderate water use plant sqft)	x 0.6	= ____
(High water use plant sqft)	x 1.0	= ____

Sum of Adjusted Landscape Area = ____

ETWU = ____ x 0.62 x ____ / ____ = ____

Irrigation Efficiency Factor		
Percent of total landscape Irrigated with Drip		
0-25%		0.71
26-50%		0.75
51-75%		0.80
76-100%		0.85

Appendix B
Hydrozone Table

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package. Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Hydrozone*	Zone or Valve	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
	Total			**100%**

***Hydrozone**
HW= High Water Use Plants
MW=Moderate Water Use Plants
LW=Low Water Use Plants

****Irrigation Method**
MS=Micro-spray
S=Spray
R=Rotor
B=Bubbler
D=Drip
O=Other

Appendix C
Certificate of Completion

This certificate is filled out by the project applicant, landscape architect and landscape contractor upon completion of the landscape project.

Part 1. Project Information Sheet

Date		
Project Name	Project Address	
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner or his/her designee:

Name	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

Property Owner Signature Date

Part 2. Landscape Architect and Landscape Contractor/Installer

Landscape Architect Name	Telephone No.	
	Fax No.	
Title	Email Address	
License No. or Certification No.	Telephone No.	
Company	Street Address	
City	State	Zip Code

Landscape Contractor/Installer Name	Telephone No.	
	Fax No.	
Title	Email Address	
License No. or Certification No.	Telephone No.	
Company	Street Address	
City	State	Zip Code

"I/we certify that the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform to the criteria and specifications of the approved Landscape Documentation Package. Additionally, per section 12.3.925 (a)(3) of this ordinance, a landscape audit and irrigation maintenance schedule have been completed and are attached to this certificate showing that the system meets the efficiency requirements used in the Maximum Applied Water Allowance calculation"

Landscape Architect Signature Date

Landscape Contractor Signature Date

SECTION 2. – Environmental Determination. This project has been reviewed for compliance with the California Environmental Quality Act and qualifies for an exemption under the General Rule section 15061(b)(3) because it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

SECTION 3. – Severability. If any part of this Ordinance or the application thereof to any person is held invalid, the remainder of the Ordinance and the application of such provisions to other persons shall not be affected thereby.

SECTION 4. – Findings. The Town Council hereby finds that, as evidenced in the record, this ordinance is at least as effective in conserving water as the California Department of Water Resources Model Water Efficient Landscape Ordinance as updated and adopted in September, 2009.

SECTION 5. – Effective Date. This ordinance shall take effect and be in force thirty (30) days following its adoption.

SECTION 6. – Posting. The Town Clerk of the Town of Windsor shall cause this Ordinance to be published or to be posted in at least three (3) public places in the Town of Windsor in accordance with Section 36933 of the Government Code of the State of California.

PASSED, APPROVED, AND ADOPTED this 2nd day of December 2009 by vote as follows:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
MAYOR

ATTEST:

_____
TOWN CLERK

TOWN OF WINDSOR
AGENDA REPORT

Town Council Meeting Date: November 18, 2009

To: Mayor and Town Council
From: Paul Piazza, Water Conservation Coordinator
Subject: Introduction of the Water Efficient Landscape Ordinance

Recommendation to Council:
Introduce, by title only, an ordinance adding Article 9, Water Efficient Landscape to the Windsor Town Code.

Background:
The adoption of AB 325 Water Conservation in Landscaping Act in 1990 required the California Department of Water Resources (DWR) to develop and implement a State Model Water Efficient Landscape Ordinance (MWELO) by January 1, 1993. Provisions in the bill allowed local agencies to adopt their own landscape ordinance, provided the local ordinance met two conditions: 1) the local ordinance was at least as effective as the State's and; 2) the local ordinance was adopted by January 1, 1993. Local agencies could also choose to do nothing, in which case after January 1, 1993 the State's MWELO would become the local ordinance by default. On October 28, 1992, the Town Council responded by passing Resolution No. 103-92, Adopting Low Water Use Landscape Guidelines as official Town policy.

In 2004 the Legislature adopted AB 2717 requesting that the California Urban Water Conservation Council convene a Landscape Task Force to develop, evaluate and recommend proposals for saving water in new and existing urban irrigated landscapes. The Landscape Task Force released a paper in 2005 titled Water Smart Landscapes for California, in which the recommendation was made to update the State's MWELO to include several key improvements that had been identified. These improvements included technological innovations in irrigation system controls, the use and application of water budgets, and procedural changes designed to improve the efficacy of the ordinance.

Based on the recommendations of the Task Force, the 2006 passage of AB 1881 Water Conservation in Landscaping Act directed DWR to complete a revision of the State's MWELO by January 1, 2009, with an effective date of January 1, 2010. After receiving input from numerous stakeholder meetings and public comment periods, the DWR completed the revision to the State's MWELO, which was subsequently adopted in September, 2009.

Discussion:
As with the earlier Water Conservation in Landscaping Act, AB 1881 includes a provision for local agencies to adopt their own landscape ordinance that is at least as effective as the State's by January 1, 2010. Throughout the revision process the DWR stressed the importance of regional cooperation for agencies wishing to pursue this option. Adopting uniform codes across local jurisdictions creates consistent expectations to meet and a simplified process to follow for landscape professionals working on multiple projects that fall within the boundaries of several different municipalities. This is an important consideration for the successful implementation of an ordinance that is viewed by many in the state as greater regulation with potential increased costs for

ITEM NO.: 13.2

the building community.

To both inform and gain the acceptance of local green industry professionals and other interested stakeholders, a regional working group was created with other public agencies, landscapers, landscape architects, and environmentalists to create a simplified Regional Water Efficient Landscape Ordinance (Ordinance) that matches or exceeds the requirements of the State's MWELO. In addition to the Town of Windsor, the Ordinance is being considered for adoption by the Cities of Napa, Santa Rosa, Rohnert Park, Petaluma and Cotati, as well as Marin Municipal and North Marin Water Districts, and the County of Sonoma.

Highlights of the Ordinance include:

- Changing landscape guidelines from a Town Council Policy to a Town Ordinance.
- Applicable to all new construction projects or landscape rehabilitation projects with over 2,500 square feet of landscaped area, including single family residential subdivisions of 5 or more lots, which are subject to Site Plan and Design Review approval.
- Expanded definition section to add more clarity when interpreting the standards.
- Use of a water budget (Maximum Applied Water Allowance) to effectively limit turf.
- Weather or sensor based self-adjusting controllers required.
- Rain shut-off device required.
- Overhead irrigation must be setback 24 inches from hardscaped areas such as sidewalks and driveways.
- An inspection component was added to ensure that the landscape is being installed per plans.
- Upon completion of a project the applicant must submit an irrigation audit, irrigation schedule and maintenance schedule.

Attachment: Ordinance

Prepared By:

Paul Piazza
Water Conservation Coordinator

Reviewed By:

Jim McAdler
Administrative Services Director

Recommended By:

J. Matthew Mullan
Town Manager

TOWN OF WINDSOR
AGENDA REPORT

Town Council Meeting Date: December 2, 2009

To: Mayor and Town Council
From: Paul Piazza, Water Conservation Coordinator
Subject: Adoption of the Water Efficient Landscape Ordinance

Recommendation to Council:
Adopt, by title only, an ordinance adding Article 9, Water Efficient Landscape to the Windsor Town Code.

Background and Discussion:
At the Town Council meeting of November 18, 2009, the Town Council introduced an ordinance adding Article 9, Water Efficient Landscape, to the Windsor Town code. This addition will protect local water supplies through the implementation of a whole systems approach to design, construction, installation, and maintenance of the landscape, resulting in water conserving climate-appropriate landscapes, improved water quality, and the minimization of natural resource inputs.

As requested by Council, the following changes to the ordinance have been made:

12.3.905 (b)(1) Applicability

This ordinance does not apply to single family residential subdivisions of 4 or fewer lots, except that prior to the start of on-site construction or soil disturbance, and prior to the issuance of a building permit, the applicant shall submit an informal implementation plan, or an informal landscape and irrigation system design plan, or the equivalent, which demonstrates how the applicant will meet the intent of this chapter.

12.3.915 (a)(2)(F)(4) Landscape Design Plan

Turf shall not be planted in the following conditions: Front yard landscape of single family residential subdivisions of 5 or more lots, where backyard landscape is not developer installed.

Attachment: Ordinance

Prepared By:

Paul Piazza
Water Conservation Coordinator

Reviewed By:

Jim McAdler
Administrative Services Director

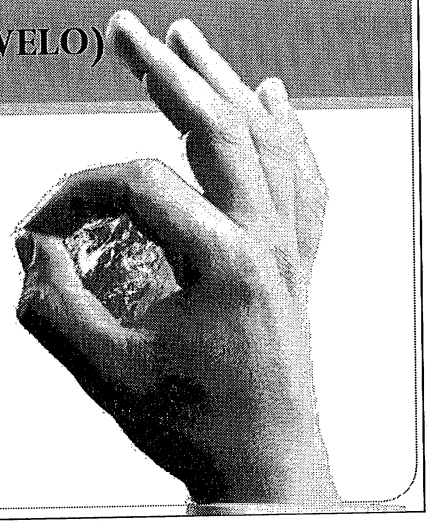
Recommended By:

J. Matthew Mullan
Town Manager

ITEM NO.: 10.3

Town of Windsor
Water Conservation

Town of Windsor Water Efficient Landscape Ordinance (WELO)



Town of Windsor
Water Conservation

Overview:

- History
- State WELO Requirements
- Regional Working Group
- Windsor Ordinance

Town of Windsor
Water Conservation

History:

- 1990 AB 325 Water Conservation in Landscaping Act
- 1992 Windsor Adopts Low Water Use Landscape Guidelines
- 2004 AB 2717 (Landscape Task Force)
- 2006 AB 1881 Water Conservation in Landscaping Act
- 2009 Updated State WELO

- AB 325 directed DWR to create and implement a State Model Water Efficient Landscape Ordinance by January 1, 1993 (or local ordinance that is at least as effective as)

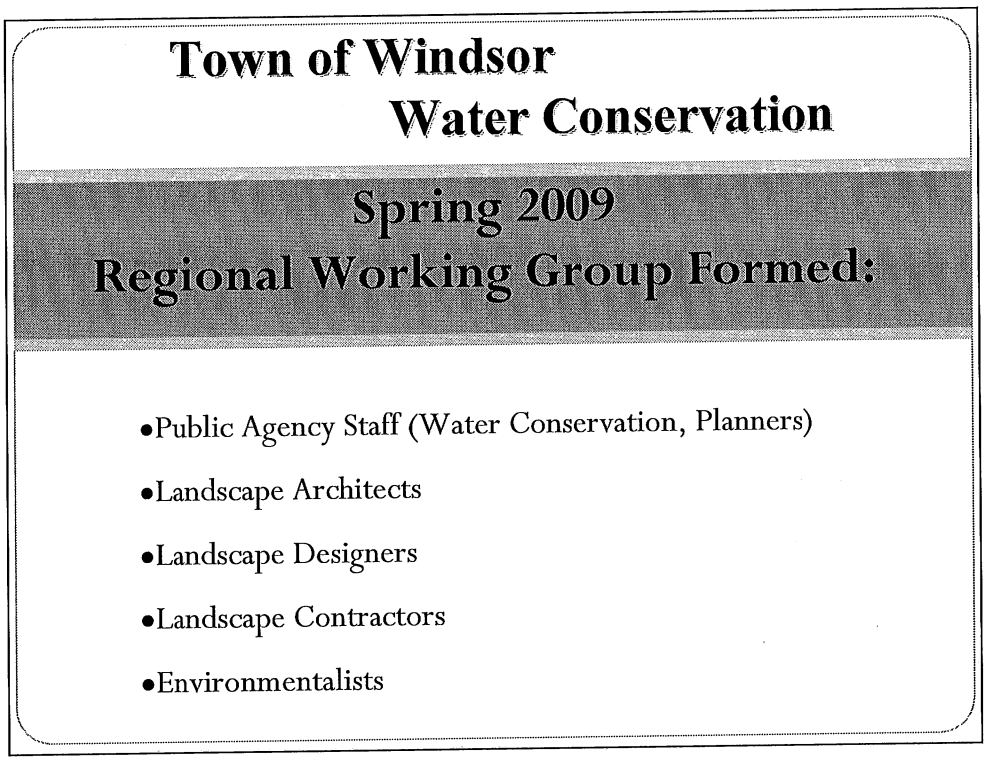
- AB 2717 asked CUWCC to convene a stakeholder group of water conservation and landscape professionals to come up with ways to get water savings in the landscape
    - Landscape Task Force released a paper in 2005 titled Water Smart Landscapes for California
        - Resulted in water budget based approach
        - Use of SMART controllers
        - Rain shutoff devices
        - Provisions for the use of turfgrass (setbacks, slopes, areas under 8 feet)
        - Greater consideration placed on soils, grading, auditing, scheduling, and maintenance.

AB 1881 directed DWR to update MWELO, incorporating recommendations of Landscape Task Force study, by January 1, 2010

Town of Windsor
Water Conservation

State's Requirements:

- Adopt a local ordinance that is at least as effective by January 1, 2010.
- By January 31, 2010, submit copy of local ordinance along with findings and evidence in the record that the local ordinance is at least as effective as the State's.
- Do nothing, in which case after January 1, 2010 the State's Model Water Efficient Landscape Ordinance shall apply within the local agency's jurisdiction.

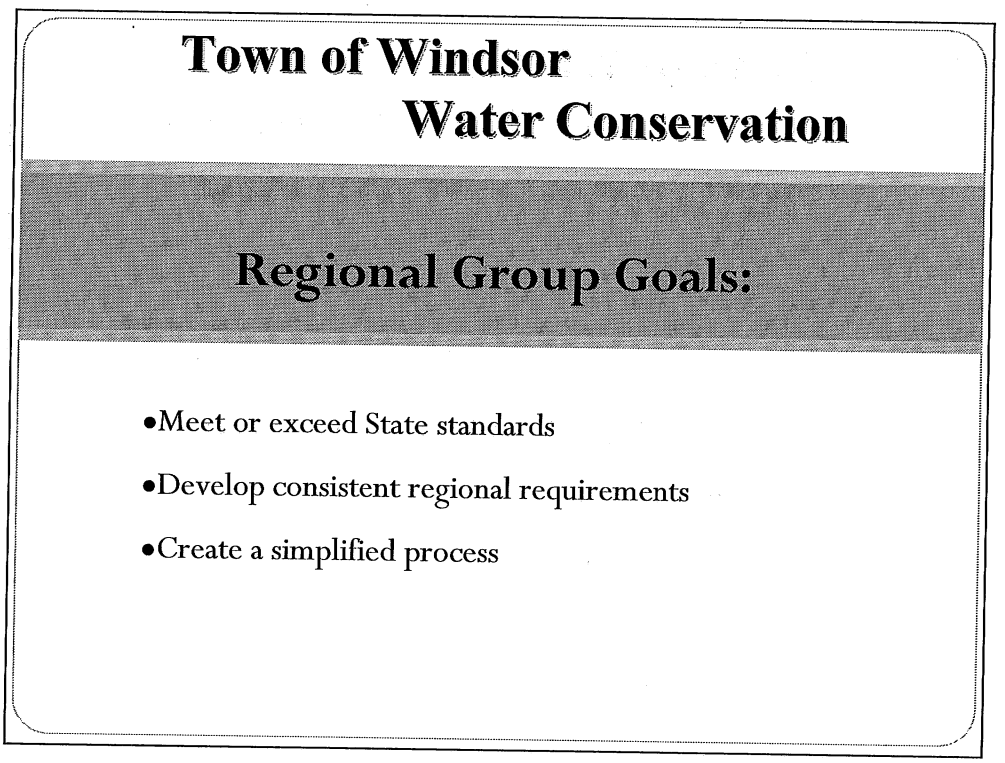


The State's revision process was roughly two years in the making. CUWCC provided information and updates on progress.

Landscape Water Advisory Group began early discussion of need for regional approach

Subgroup of North Coast Regional Water Conservation Coordinators

LWAG is water conservation staff, landscape professionals, CLCA representatives, experts from local colleges (QWEL program development)



State's MWELO not written in standard ordinance format

Bottom line: make it work for all involved and get the water savings.

Town of Windsor
Water Conservation

Regional Group Template:

- Utilize State's draft WELO
- Incorporate Bay Friendly Guidelines
- Consider existing local landscape requirements
- Consider local water supply conditions

BayFriendly Guidelines:

- Reducing waste and recycling materials (keep plant debris on-site)
- Nuturing healthy soils while reducing fertilizer use
- Conserving water, energy, and topsoil
- Using IPM / BPM to minimize chemical use
- Reduce storm water runoff
- Creating wildlife habitat

- Reducing air pollution and greenhouse gas emissions associated with transporting plant debris to be processed or landfilled

Town of Windsor
Water Conservation

Regional Group Process:

- Santa Rosa & SCWA (chair and record minutes)
- Matrix created (State draft WELO, Bay Friendly, Local)
- LWAG members facilitate sub-groups
- Break out sessions /sub-groups report
- Group discussion /consensus reached

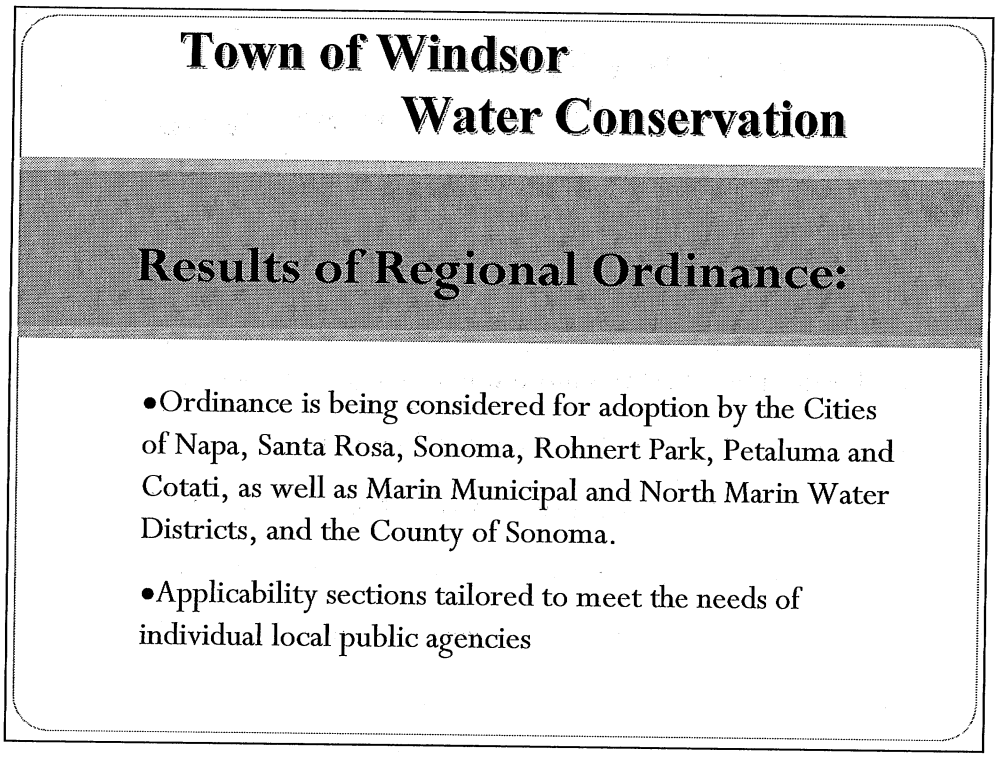
Town of Windsor Water Conservation

Results of Regional Ordinance: Meets or exceeds all State requirements

- Local water budget is 10% more water saving than State's
- Minimum 3 inches of mulch; State requires 2 inches
- Turf not allowed on slopes greater than 10%; State threshold is 25%
- No turf in medians, planter strips, or any area less than 8 feet wide
- Flow sensor required for larger projects (1.5 inch meter or larger)
- Final inspection required to verify compliance

Questions a local agency can ask to evaluate it's ordinance:

- Is the ordinance applicable to all landscapes identified in the applicability section of the Model Ordinance?
- Is the most efficient and appropriate irrigation equipment required?
- Does the irrigation design plan encourage or require the use of improved technology?
- Is irrigation scheduling based on CIMIS or other reliable ETo data or soil moisture sensors?
- Does the ordinance hace a MAWA water budget based on ETAF of 0.7 for new and rehabilitated landscapes?
- Is there a water budget that can support an average 0.5 plant palette without wasting or overusing water?
- Will overspray and runoff be prohibited?
- Do the audit and maintenance sections of the ordinance meet minimum requirements of the Model Ordinance?
- Does the landscape documentation component comply with the ordinance requirements?
- Will plant be grouped in hydrozones?
- Is recycled water use required where available?
- Will opportunities for stormwater retention be taken advantage of?
- Is mulch required where appropriate?
- Will the soil be assessed and/or amended prior to planting?
- Are mechanisms in place to ensure compliance?



- Introduced at Santa Rosa Council meeting on November 10th.
- Sonoma County Board of Supervisors public hearing on December 8th.
- NMWD in December
- Napa in spring 2010

Santa Rosa had an existing ordinance requiring all new projects to comply.

Town of Windsor
Water Conservation

Windsor Ordinance Applicability:

- Private development projects involving new construction or rehabilitation of landscape areas of 2500 square feet or greater in area and which are subject to Site Plan and Design Review approval.
  - Single family residential subdivisions of 5 or more lots, multi-family residential, commercial, industrial, and institutional development
- Public agency projects involving new construction or rehabilitation of landscape areas of 2500 square feet or greater in area.

Santa Rosa Applicability:

After January 1, 2010, this ordinance shall apply to all of the following new and rehabilitated landscape projects that require a Building or Grading Permit, Plan Check, Design Review or Utilities Certificate:

Commercial, industrial and institutional landscaping, park and greenbelt landscaping, multiple-family residential and single-family residential landscaping.

Sonoma County Applicability:

1. New and rehabilitated landscapes in multi-family residential, commercial, industrial, agricultural processing, and public agency projects requiring a building or

grading permit or design review.

2. New and rehabilitated landscapes that are developer-installed in singlefamily residential projects requiring a building or grading permit or design review.
3. New and rehabilitated landscapes that are homeowner-provided and/or homeowner-hired in single-family residential projects involving new buildings or

additions over 400 square feet and requiring a building or grading permit or design review, except where the landscape area is less than 5,000 square feet, turf is limited to

no more than 600 square feet, and an irrigation system is installed and operated by a weather-based self-adjusting irrigation controller with a rain sensor.

- Remember, County will cover backyards over 5000 sq. ft. in Mayacamas / Shiloh service area. Under 5000 sq. ft. threshold must be no more than 600 sq. ft. of turf and SMART controller required.

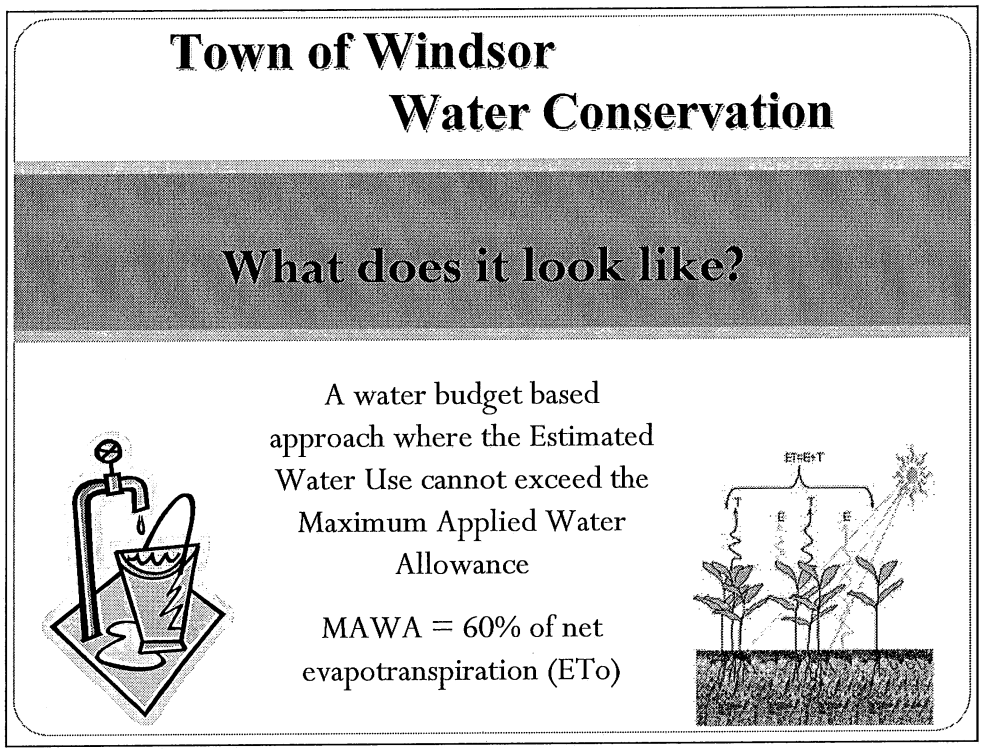
- Windsor ordinance also covers approved projects (including residential subdivisions of 5 or more lots, as well as commercial, industrial, and institutional development) which have not yet submitted for initial plan check of improvement plans and which involve new construction or rehabilitation of landscape areas of 2500 square feet or greater in area.

Town of Windsor
Water Conservation

Windsor Ordinance does not apply to:

- Single Family residential subdivisions of 4 or fewer lots
- Registered local, state, or federal historical landscapes
- Ecological restoration / mined land restoration not requiring a permanent irrigation system
- Plant collections, as part of public botanical gardens and arboretums

▪No retrofits required



Without going into all of the detailed requirements of the ordinance, here's what it looks like:

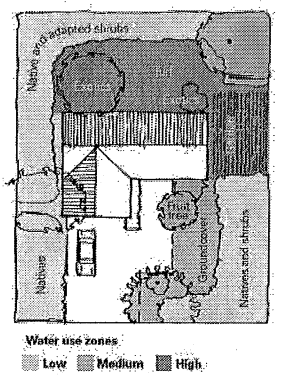
The amount of water in the bucket is not sufficient to support a landscape dedicated solely to moderate or high water use plants.

MAWA is 60% of net evapotranspiration

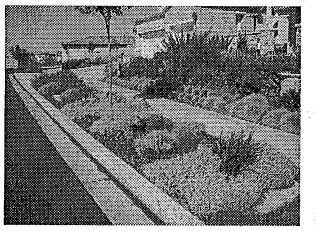
ETo is the amount of water required by a well watered cool season turf grass (4-6 in. tall)

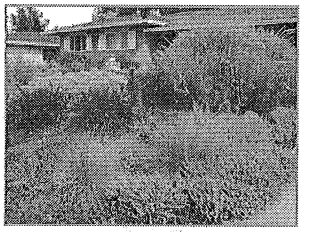
Town of Windsor
Water Conservation

Which translates to....



A mostly low to moderate water use landscape





Excluding invasives, any plants may be used as long as the water budget is not exceeded

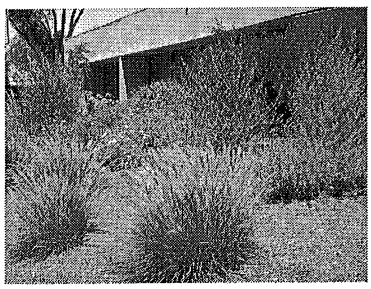
Plant selection that is adapted to climate and local conditions

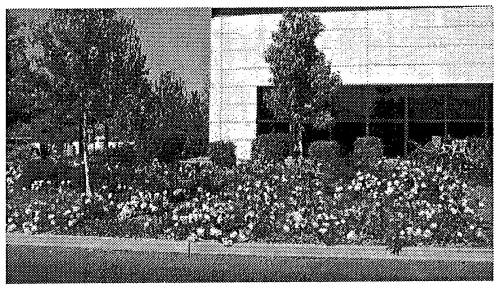
Grouped in hydrozones

Town of Windsor
Water Conservation

Which translates to....

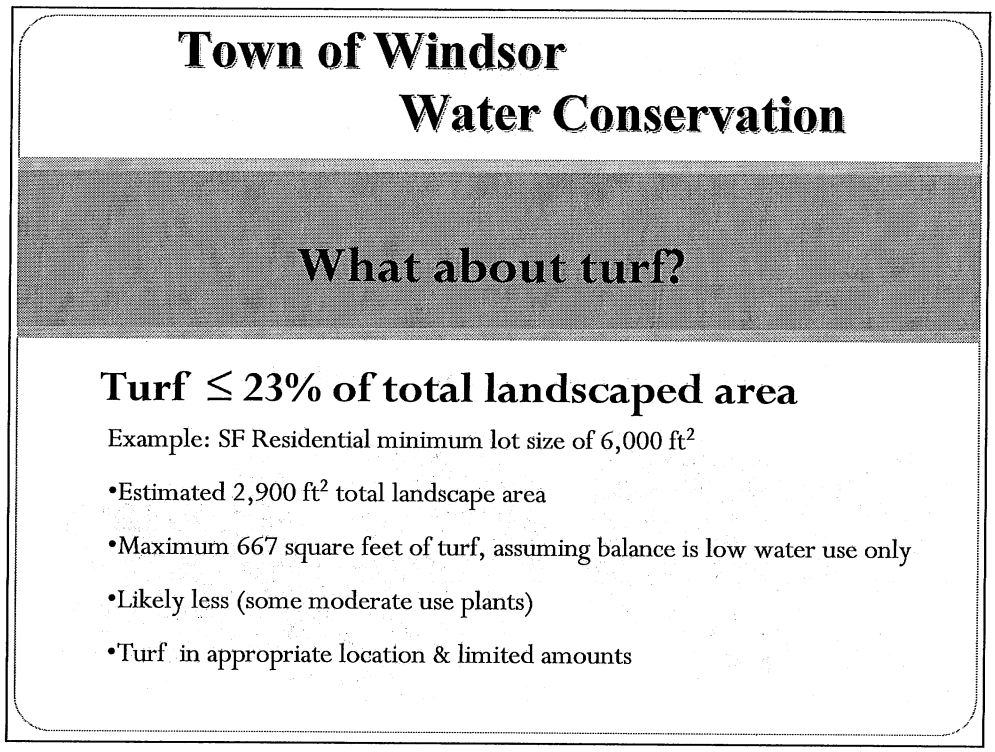
A mostly low to moderate water use landscape





Highly recommended

- Natives and natural vegetation
- Water conserving species (Mediterranean)
- Pest and disease resistant varieties
- Appropriate plant placement allows plants to fill space at maturity without need for sheering



Turf is not prohibited as a plant choice.

However, because turf continues to be the highest water using plant in the landscape, driving the seasonal bell curve spike in water use, the water budget was designed to be the

mechanism to limit the use of turf.

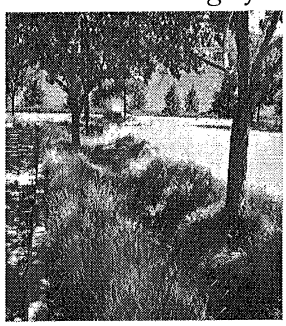
1700 sq ft front yard

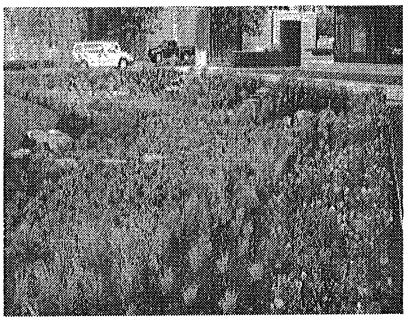
1200 sq ft back yard

Town of Windsor
Water Conservation

Other elements...

Stormwater BMPs highly encouraged – Maximize infiltration and retention





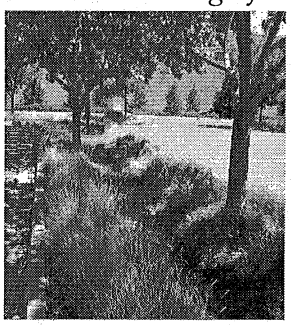
If you look at how landscapes have traditionally been done, most are mounded to shed water. We need to turn it around somewhat.

Sheeting effect increases erosion, sending surface pollutants and sediment to storm drains and creeks

Town of Windsor
Water Conservation

Other elements...

Stormwater BMPs highly encouraged –



- Less runoff
- Cleaner runoff
- Shorter irrigation season
- Retains pulse flows
- Increase habitat
- Lower maintenance

Creating swales and retention basins acts to slow down overland flows

Plants help filter and slow water flow

Ground water recharge with biological filtration.

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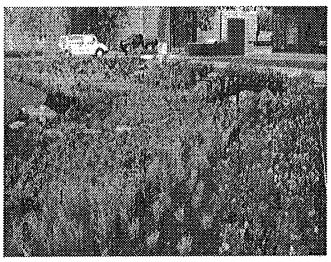
Water Conservation

Ordinance / Green Building / LID



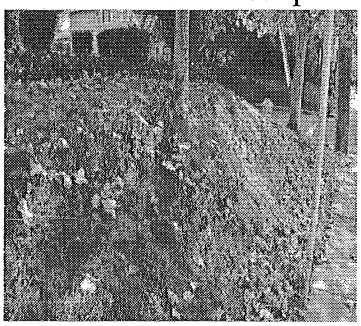
- Similar focus of Green Building and Low Impact Development
- Corresponds with points earned in Green building
  - Soil protection, soil amendments, high-efficiency irrigation system
- Complements Low Impact Development (LID)
  - Stormwater management, permeable hardscapes, bioswales

The Landscape Ordinance is well aligned with other development priorities of the Town including our mandatory Green Building program and the recent focus on Low Impact Development.

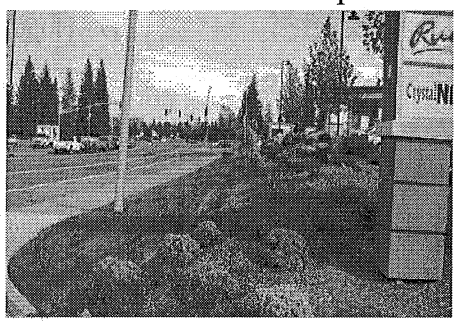
Town of Windsor
Water Conservation

What you won't see...

Turf on excessive slopes

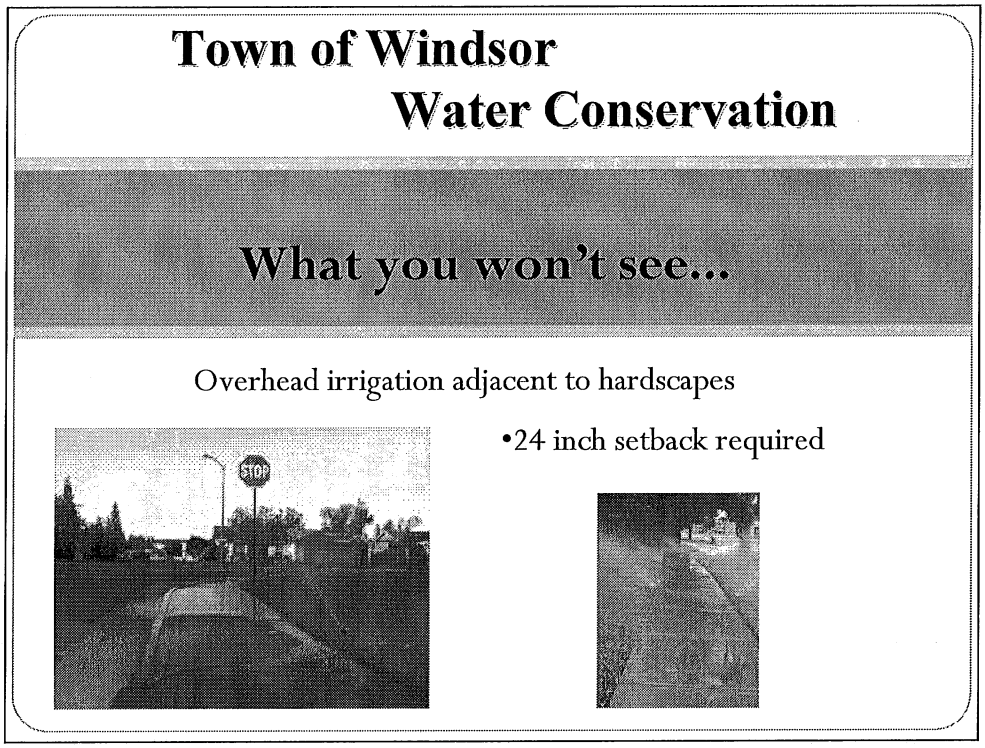


Narrow turf strips



Again, the local approach is more rigorous than the State, with turf prohibited on slopes greater than 10%

No turf allowed in street medians, traffic islands, planter strips, and bulbouts of any size.



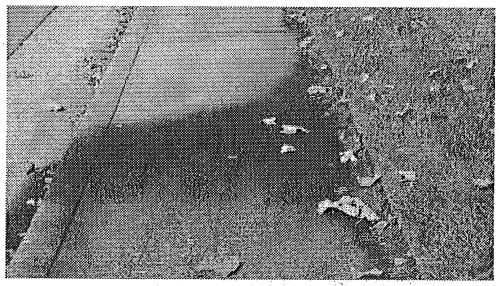
Minimum 24" setback of overhead irrigation is required where turf is directly adjacent to a continuous hardscape that flows into the curb and gutter. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material.

Town of Windsor
Water Conservation

What you won't see...

Overhead sprinklers in shrubs

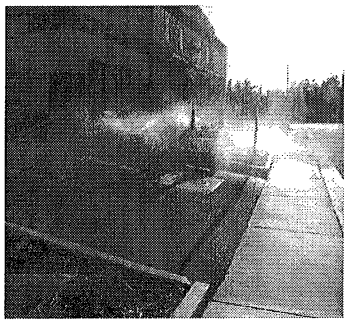
Low head drainage



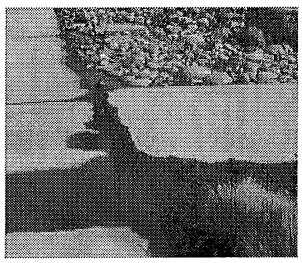
Town of Windsor
Water Conservation

What you won't see...

Excessive pressure

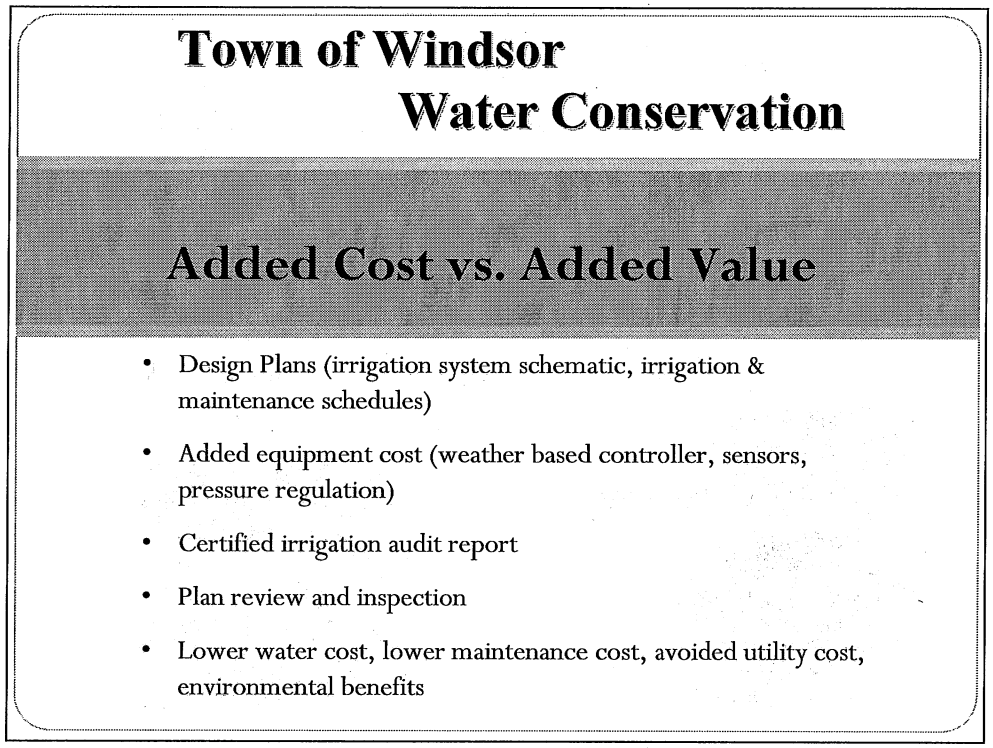


Long duration mainline breaks –
Meters ≥ 1.5 in. require flow sensors



Also, risers on swing joints to prevent breakage

Overall, we are moving as much as possible toward drip and low volume irrigation systems as opposed to overhead sprays.



There are some expected costs associated with the ordinance, although it is not expected to add significantly to the overall cost of a project

Maintenance costs:

Fertility, mowing, sheering, property damage due to overspray & runoff (paved surfaces, fences, house siding)

Environmental benefits:

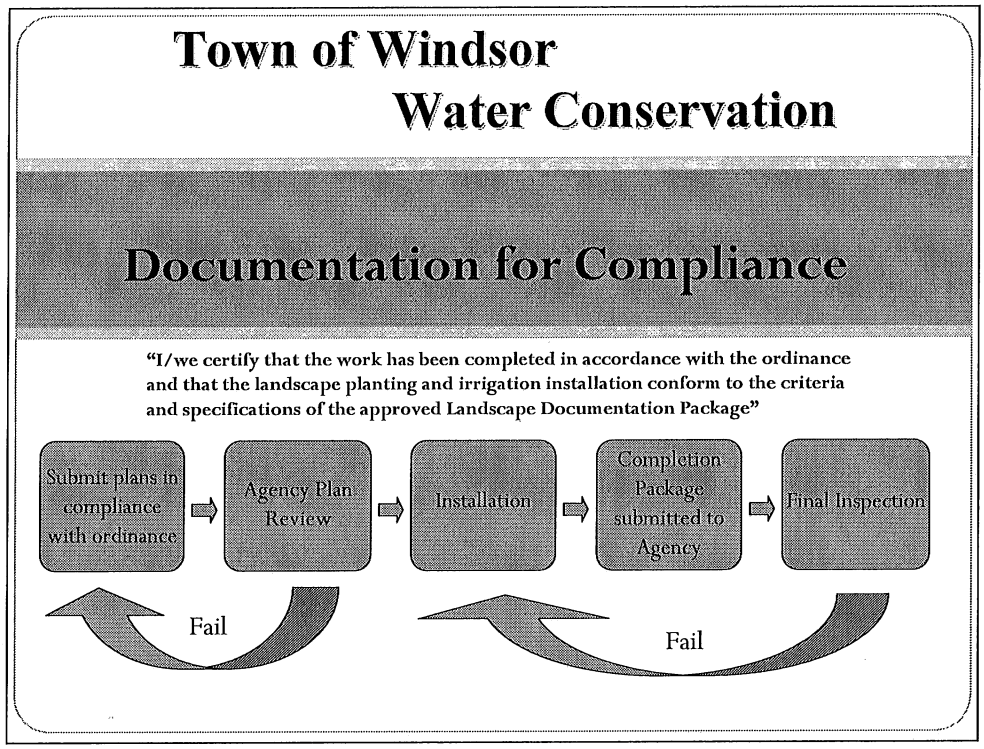
•Reduce / eliminate runoff (excess nutrient load and pesticides to storm drains / creeks)

•Reduce material to landfill (grass clippings, sheering waste)

•Capture, retain, filter stormwater

•Soil building as opposed to soil depleting

•Conservation of scarce resource



Taking a look at the process to be followed to ensure that all the requirements of the ordinance are being met.

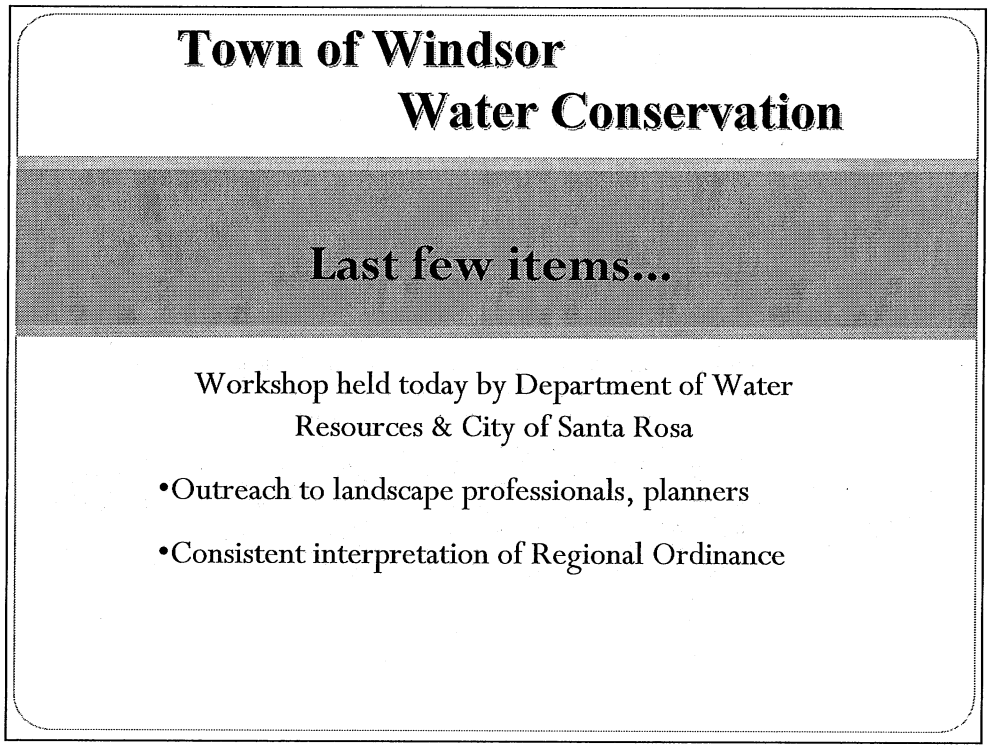
Submitted with a Design Review application or Conditional Use Permit
- MAWA, Estimated Water Use calculation form
- A landscape plan
    - Plants by Hydrozone (low, mod, high)
    - Water features
    - Stormwater BMP features
- A conceptual irrigation Design Plan

Prior to Building Permit
- Approved planting plan & MAWA
- Detailed irrigation Design Plan
    - Irrigation system components
- Hydrozone Table
- Where slopes exceed, 10% a Grading Plan

Completion Package
- Certificate of Completion (project applicant, landscape architect, landscape contractor)
- Irrigation Audit Report
    - Parameters for scheduling
- Irrigation and landscape maintenance schedules

Final inspection by staff

Also includes required signature of owner certifying responsibility for irrigation and landscape maintenance.



Also, risers on swing joints to prevent breakage

Town of Windsor
Water Conservation

Last few items...

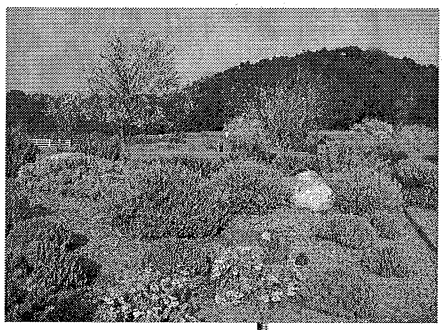
Continuing to work with Airport Business Park management, business owners and their landscapers

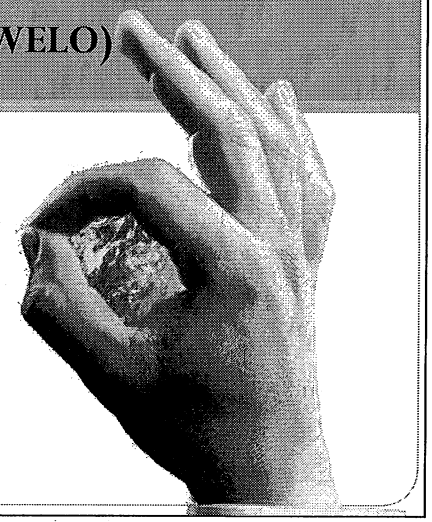
- Meeting in December with landscapers to discuss ongoing use of water budgets
- Incentives are available from the Town for irrigation system upgrades or turf conversions

Town of Windsor
Water Conservation

Town of Windsor Water Efficient Landscape Ordinance (WELO)

Thank you!





CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

The agenda covered the following items:

Meeting: California Water Efficient Landscape Ordinance (CA WELO)
Location: City of Santa Rosa Municipal Services Center South, 69 Stony Circle, Santa Rosa, CA
Start time: 9:00 am End time: 11:35 am
Date: Tuesday, February 10, 2009
Hosts: Dan Muelrath, City of Santa Rosa and Ali Davidson, Sonoma County Water Agency

Attendees:

Allen, Andy	City of Santa Rosa Public Works & Engineering	aallen@srcity.org
Auch, Dan	Sweetwater Landscape	info@getpond.com
Bowers, Mark W.	Resource Design	mark@resource-design.com
Carney, Dan	Marin Municipal Water District Water Conservation	dcarney@marinwater.org
Davidson, Ali	Sonoma County Water Agency	ali@scwa.ca.gov
Dowd Markarian, Susie	Sustainable Design & City of Santa Rosa Design RB	designers@bloomful.com
Edman, Si	Earth Design Group	si@earthdesigngroup.com
Erts, Richard	Marizco Landscape Management	richard@marizco.com
Estournes, Peter	Gardenworks, Inc.	Peter@gardenworks-inc.com
Faloni, Duane	TruGreen Landcare	duane_faloni@landcare.com
Florey, Lynn	Sonoma County Water Agency	lflorey@scwa.ca.gov
Goldberg, Lynn	City of Healdsburg, Planning Department	lgoldberg@ci.healdsburg.ca.us
Hall, Geoff	Sentient Landscape, Inc.& SSU Sustainable Landscape	mail@sentientlandscape.com
Hart, Sierra	Allen Land Design; City of Sebastopol Design RB & APLD	sierra@allenlanddesign.com
Hudson, Trent	City of Sonoma	thudson@sonomacity.org
Iribarne, Dave	City of Petaluma Water Conservation	diribarne@ci.petaluma.ca.us
Kopshever, John	Sonoma Mountain Landscape, Inc.	sonoma_mountain@msn.com
Lane, Deb	City of Santa Rosa Water Conservation	dlane@srcity.org
Lesko, Diane	Sonoma County Water Agency	dlesko@scwa.ca.gov
Marizco, Pierre R.	Marizco Landscape Management	pierre@marizco.com
Matteri, Rod	SBI Building Materials	rodmatteri@sbimaterials.com
McNairy, Chris	Hunter Industries	cmcnairy@hunterindustries.com
Meehan, Sheree	Airport Business Center	smee@airportbusinesscenter.com
Muelrath, Daniel	City of Santa Rosa Water Conservation	dmuelrath@srcity.org
Piazza, Paul	Town of Windsor Water Conservation	ppiazza@townorwindsor.com
Rasmussen, Dan	Huppe Landscape Company	dan@huppelandscape.com
Rinehart, Bill	Carlile Macy	brinehart@carlilemacy.com
Ruth, Maisha	Stantec	maisha.ruth@stantec.com
Smith, Michael	The Toro Company	michael.smith@toro.com
Sumner, Cynthia	Equinox Landscape & APLD	nbdistrict@apldca.org
Sungar, Bree	ET Water	bsungar@etwater.com
Tripathi, Jay	Gardenworks, Inc.	jt@gardenworks-inc.com
Volmer, Scott	Great Valley Design	scottgvd@comcast.net
Whitaker, Michael	City of Santa Rosa Building Dept	mwhitaker@srcity.org

Not present:

Costello, Pat	City of Napa Water Resources Analyst	pcostello@cityofnapa.org
Myles, Carol	Myles Design, Petaluma, CA	carol@mylesdesign.com
Rich, Maureen	City of Rohnert Park	mrich@rpcity.org

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

Materials Distributed:

1. Consensus Building
2. Bay Friendly Model Water Efficient Landscape Ordinance Draft 02-09-09
3. 2009 Project Budget Worksheet, Small Project Compliance (2,500 s.f.), Bill Rinehart, Carlile Macy

Definitions:

1. AB – Assembly Bill
2. ABC – Airport Business Center, Santa Rosa, CA
3. ALPD – Associated Landscape Professional Designers
4. Bay-Friendly Landscaping - a whole systems approach to the design, construction and maintenance of the landscape. www.bayfriendly.com
5. CA WELO – California Water Efficient Landscape Ordinance
6. CLCA – California Landscape Contractor's Association
7. DWR – Department of Water Resources
8. ET - evapotranspiration
9. MF – Multi family
10. SF – Single family
11. s.f. – square footage

Topic	*Summary*	*Action Item*
Introductions: Ali Davidson	Housekeeping: sign-in sheets, bathrooms.	N/A
Dan Muelrath	Ground rules: 1. See Consensus Building on problem definition and analyses: Purpose, Applicability, Definitions 2. Meeting design: review an Ordinance section, use breakout session to discuss, reconvene, one designated speaker from each table gets 3-4 minutes to discuss 3. Rough consensus: general majority of 2/3 vote to not alienate any agencies, industries, or businesses. 4. We have to design an Ordinance that is 'at least as effective as' the CA state model. 5. Regional boundaries: Sonoma, Marin, Napa, Mendocino counties. Outlying areas are Sacramento, East Bay, and the South Bay.	N/A
	Goals and expectations: 1. Regional: to have a standard method of getting plans though permits while keeping creativity in the designer's hand with a % ET and climate based approach. 2. CLCA: educate clients on effective water management 3. ALPD: educate clients on fitting water conservation into macro ecological systems 4. ABC: educate commercial and developer clients on Ord. requirements	N/A
	Working timeline and expectations: 1. Adopt on Jan 1, 2010 or default to the state model ordinance 2. July 1, 2009 – take to Boards and Councils	Adopt 01-01-10 Complete Regional

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

		Ord. by June 2009
CA WELO *Dan Muelrath*	1. Why are we here? California Water Efficient Landscape Ord. 2. Background: AB 2717 Task Force analyzed water management through various lenses (economics, plants, irrigation, etc.) and recommendations were made to revise the existing landscape ordinance (AB 325 - a water budget approach) to include coordination between planning and building departments, water utilities, landscape architects and landscape contractors, to name a few.	A regional approach using Bay-Friendly's standards as a guideline. DWR will tie eligibility for state grants & loans to WELO
Section One: Purpose and Applicability 10:15 – 10:30	Group comments: Table #1: 1. BF sentence does not belong in statement. 2. Applicability needs to be split into new construction/ rehab construction vs. Homeowner. Table #2: 1. Open this up to include Sustainable Site rating system and have long-term alignment with other rating systems. 2. What are the trigger points? In the commercial section the definition of rehabilitated landscape is within one year of what? 3. How will existing landscaping audit requirements be implemented? 4. Change to model 'heater' to 'water' Table #3: 1. Botanical gardens should not be excluded. 2. All the above comments. Table #4: Define conservation as the same as water efficiency. Table #5: 1. Add grading to the landscape permit 2. Developer landscapes need to be reviewed good faith shown if a developer can demonstrate a level of water efficiency is met. 3. At what point do wealthy clients trigger the water efficiency: cost of water and plan submittal 4. Reference the definition of 'landscape area'. 5. If BF language is maintained, the purpose should include water conservation. Table #6: 1. Are private well water users covered? 2. The trigger points and square footage of SF and MF residential are small, so we want a total project area or drop the definition all together. Table #7: 1. Identify water supply sources (potable, recycled, graywater and sustainable water) 2. How to enforce the Ordinance? 3. Apply s.f. to all new projects.	Reference water quality and sustainability. Remove BF reference with the intent that will be accomplished with the above added sustainable, water quality. Recycled water should not be allowed to runoff. Confirm if recycled water is a sticking point for your agency or opt out. Add grading agreed.

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

Meeting adjourned *Next Section:*	4. Clarify rehabilitated landscapes Table #8: 1. Add playing fields 2. Provide info on projects irrigated with well water 3. water harvesting and graywater provision 4. Provide a submittal requirements table based on size (a tiered structure/table). 5. Separate installation from the building occupancy process. Table #9: 1. Define rehabilitated and remodeled landscape. 2. Request as much permeable landscape as possible. 11:35 AM **Be prepared to discuss and comment on:** **Page 11 - Soil Management Plan 492.5 and 492.6.**	Tie landscape completion to occupancy.
Next Meeting: *RSVP:*	March 11, 2009 9 AM – 12 noon, 69 Stony Circle, City of Santa Rosa, CA ali@scwa.ca.gov Please feel free to invite your local planner to the next meeting☺	

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

The agenda covered the following items:

Meeting:	California Water Efficient Landscape Ordinance (CA WELO)
Location:	City of Santa Rosa Municipal Services Center South, 69 Stony Circle, Santa Rosa, CA
Start time:	9:10 am End time: 11:45 am
Date:	Tuesday, March 11, 2009
Hosts:	Dan Muelrath, City of Santa Rosa and Ali Davidson, Sonoma County Water Agency

Next Meeting:	*April 08, 2009*
Time:	*9 AM – 12 noon*
Location:	*City of Santa Rosa Municipal Services Center S. 69 Stony Circle, City of Santa Rosa*

Materials Distributed:

1. Agenda - March 11, 2009
2. Bay Friendly Model Water Efficient Landscape Ordinance Draft 02-09-09
3. Soil Management Plan 492.5 dated 03-11-09
4. Soil Management Plan 492.6, page 11

Minutes:

Topic	*Summary*	*Action Item*
CA WELO *Dan Muelrath*	Regional goals: to have a standard method of getting plans though permits while keeping creativity in the designer's hand with a % ET and climate based approach. Timeline: 1. Adopt on Jan 1, 2010 or default to the state model ordinance 2. July 1, 2009 – take to Boards and Councils	Design Ord. that is 'at least as effective as' the CA state model. **Adopt 01-01-10** Complete 06-30-09
Section One: Purpose and Applicability 9:15 – 9:25	Group comments: 1. Involve more planners in this process 2. Sort all 'shalls' and 'mays' from Ord. to see what is really required. 3. Omit sq.ft. 2,500 in this section 4. Modify the MAWA calculations and sq. ft. requirements 5. Lower the homeowner range requirements 6. Incorporate Bay Friendly guidelines	Present to County Planners monthly mtg If MAWA calculation is above 50% go to a slow track; if below 50% go to fast track. Lower the homeowner range requirements.
Section Two: Soil Mgt. Plan 492.5 & 492.6 (page 11 Bay Friendly)	Group comments: 1. Redefine hydrozone. 2. All projects shall require a soil management report/soil conditioning plan that describes improvements to the hydrozone to suit the landscape you will install. 3. Keep wording as 'may'. 4. Require a minimum soil requirement for soil treatment. 5. Define a number for mass grading. 6. Amend to include Bay Friendly language. 7. Keep area from being trampled. 8. Fertility content may not be relevant to a water management plan.	Santa Rosa will send out requirements as an attachment

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

	9. Professional landscape installers do a soil analysis only when there is a plant mortality or drainage issue. 10. Specify the soils report to have a holistic and organic approach. 11. The landscape design must reflect the plans of the soil report. 12. Six cubic yards per 1,000 sq. ft. is the industry standard. 13. Establish a sq. ft. base line and allow each city to go up or down. 14. Establish a checklist for all; each city/district will set their threshold. 15. Train planning departments on adopted requirements.	
Meeting adjourned	11:35 AM	
Next Section:	**Be prepared to discuss and comment on:** **Page 11 - Soil Management Plan 492.6 and 492.7.**	
Next Meeting: *RSVP:*	April 08, 2009 9 AM – 12 noon, 69 Stony Circle, City of Santa Rosa, CA ali@scwa.ca.gov	

Attendees:

Allen, Andy	City of Santa Rosa Public Works & Engineering	aallen@srcity.org
Auch, Dan	Sweetwater Landscape	info@getpond.com
Bowers, Mark W.	Resource Design	mark@resource-design.com
Burgi, Charlene	Marin Municipal Water District Water Conservation	cburgi@marinwater.org
Davidson, Ali	Sonoma County Water Agency	ali@scwa.ca.gov
Erts, Richard	Marizco Landscape Management	richard@marizco.com
Estournes, Peter	Gardenworks, Inc.	Peter@gardenworks-inc.com
Faloni, Duane	TruGreen Landcare	duane_faloni@landcare.com
Goldberg, Lynn	City of Healdsburg, Planning Department	lgoldberg@ci.healdsburg.ca.us
Hall, Geoff	Sentient Landscape, Inc.& SSU Sustainable Landscape	mail@sentientlandscape.com
Hart, Sierra	Allen Land Design; City of Sebastopol Design RB & APLD	sierra@allenlanddesign.com
Kopshever, John	Sonoma Mountain Landscape, Inc.	sonoma_mountain@msn.com
Lane, Deb	City of Santa Rosa Water Conservation	dlane@srcity.org
Lesko, Diane	Sonoma County Water Agency	dlesko@scwa.ca.gov
Matteri, Rod	SBI Building Materials	rodmatteri@sbimaterials.com
Muelrath, Daniel	City of Santa Rosa Water Conservation	dmuelrath@srcity.org
Njuno, Shiko	City of Cotati	snjuno@ci.cotati.ca.us
Piazza, Paul	Town of Windsor Water Conservation	ppiazza@townorwindsor.com
Rasmussen, Dan	Huppe Landscape Company	dan@huppelandscape.com
Rinehart, Bill	Carlile Macy	brinehart@carlilemacy.com
Sumner, Cynthia	Equinox Landscape & APLD	nbdistrict@apldca.org
Sungar, Bree	ET Water	bsungar@etwater.com
Tripathi, Jay	Gardenworks, Inc.	jt@gardenworks-inc.com
Wingfield, Amy	Sonoma County Permit and Resource Management Dpt.	awingfie@sonoma-county.org

Not present:

Carney, Dan	Marin Municipal Water District Water Conservation	dcarney@marinwater.org
Costello, Pat	City of Napa Water Resources Analyst	pcostello@cityofnapa.org
Dowd Markarian, Susie	Sustainable Design & City of Santa Rosa Design RB	designers@bloomful.com
Edman, Si	Earth Design Group	si@earthdesigngroup.com
Florey, Lynn	Sonoma County Water Agency	lflorey@scwa.ca.gov
Grisso, Ryan	North Marin Water District	ryan@nmwd.com

CA Water Efficient Landscape Ordinance
Meeting Summary and Action Item Status

Hudson, Trent	City of Sonoma	thudson@sonomacity.org
Huppe, Jim	Huppe Landscape Company	jim@huppelandscape.com
Iribarne, Dave	City of Petaluma Water Conservation	diribarne@ci.petaluma.ca.us
Marizco, Pierre R.	Marizco Landscape Management	pierre@marizco.com
McNairy, Chris	Hunter Industries	cmcnairy@hunterindustries.com
Meehan, Sheree	Airport Business Center	smee@airportbusinesscenter.com
Ruth, Maisha	Stantec	maisha.ruth@stantec.com
Smith, Michael	The Toro Company	michael.smith@toro.com
Volmer, Scott	Great Valley Design	scottgvd@comcast.net
Whitaker, Michael	City of Santa Rosa Building Dept	mwhitaker@srcity.org

Invited:

Atkins, Wendy	City of Sonoma	Watkins@sonoma.city.og
Barrett, Jennifer	Sonoma County Permit and Resource Management Dpt.	JBARRET1@sonoma-county.org
Gilligan, Janice	Sonoma County Permit and Resource Management Dpt.	jgilliga@sonoma-county.org
Costello, Pat	City of Napa Water Resources Analyst	pcostello@cityofnapa.org
Gaiser, Bob	Sonoma County Permit and Resource Department	bgaiser@sonoma-county.org
Myles, Carol	Myles Design, Petaluma, CA	carol@mylesdesign.com
Rich, Maureen	City of Rohnert Park	mrich@rpcity.org
Yates, Rosemary	Dream Home Gardens	ryates@dreamhomegardens.com

The 04-08-09 minutes covered the following items:

Meeting: California Water Efficient Landscape Ordinance
Location: City of Santa Rosa Municipal Services Center South, 69 Stony Circle, Santa Rosa, CA
Date: Wednesday, April 08, 2009
Start time: 9:10 am End time: 11:45 am
Hosts: Dan Muelrath, City of Santa Rosa and Ali Davidson, Sonoma County Water Agency

Next Meeting: *Thursday, May 07, 2009*
Time: *1 PM – 4 PM*
Location: *City of Santa Rosa Municipal Services Center S. 69 Stony Circle, City of Santa Rosa*

Materials Distributed:

1. Sign-in sheet
2. Agenda – April 8, 2009
3. Landscape Documentation Package prepared by City of Santa Rosa
4. Department of Water Resources Water Efficient Landscape ORDINANCE

Minutes:

Topic	*Summary*	*Action Item*
Dan Muelrath 9:05 - 9:10	State WELO announcement and up-to-date explanations	Introduction to new group members
Section One: Purpose and Applicability 9:10 – 9:15	CA WELO presented to Sonoma County Planning Directors monthly meeting, 04-23-09, *Amy Wingfield and Ali Davidson*	Planning Directors invited to participate in CA WELO mtg.
Section Two: 492.5 Soil Conditioning and Mulching *9:15 – 9:25*	Group comments from prior meetings: Jeff: Bay Friendly requires 8" mulch Dan: hillsides and/or natives Paul: use compost and natural fertilizers instead of amendments Dave Penry: recommends a soil test Jeff: recommends soil analysis Mark: go for a soil test Dave P: soil test is cheap and fast	**Final Language:** Incorporate compost or natural fertilizer into the soil to a minimum of 8" at minimum rate of 5 cubic yards per 1000 square feet or per specific amendment recommendations from a soils laboratory report.
Plant Section Landscape Doc. Package *9:25*	Dan Muelrath explained the Landscape Documentation Package (the first column is DWR Plants language; the second column is BF recommendations and the third column is Suggested Language).	**Goal:** to delete language 'highly recommended' and stay with 'specifics'
Plant Section *10:03*	Group comments: Table #1: DWR section is more accurate, the BF didn't define low-water. Hydrozone language is fine. All non-turf language is fine. Turf BF language greater than 10% is ok. We think all turf is	**Final Language:** 1. Use suggested Plants language and combine with BF 2. 'Circuits' should be

	decorative. Median prohibit is fine. Invasive plants shall be prohibited and shall be referenced to WUCOLS and others. Table #2: Suggested plants language is fine. Hydrozones language should read that a separate valve should be used for trees in turf. Remove 'all non-turf plants". Bump up turf on slopes to 15% because of handicap regulations. No comment on fire section. For invasive plants sections add 'unless verifiable containment is possible' (this will leave this option open for design applications). Table #3: Go with MAWA suggested language for plants (do not use percent because this is hard to mandate). Use suggested language for Hydrozones. Adopt both BF and Suggested for plant selection. Turf - adopt the Suggested Language and last bullet of BF "turf is prohibited....". Invasive plants should be referenced to CAL-IPC BF comment. Table #4: Suggested language for plants section is appropriate (because the MAWA). Hydrozones Suggested language needs to add 'areas that are non-irrigated or temporarily irrigated '. Use BF language 'mature size'. Use turf suggested language and add 3rd BF bullet. Table #5: Use suggested Hydrozone language and add 'if irrigation is required'. Turf – use suggested language and add 3rd BF bullet. The fire-prone section reading 'and as approved by local jurisdiction delete 'avoid' and use 'prohibit'. Make sure the definition of turf as 'groundcover of MOWED grass' stays intact. Any area of 8 feet or less could be used with subsurface drip irrigation but not overhead spray. Table #6: Many don't use MAWA suggestions. Change suggested Hydrozone language 'circuits' to 'separate irrigation valve'. Like the BF turf language but bump up to 15 % or 20%. BF is trying to avoid using decorative turf on slopes and berms instead of playing fields, sports fields. Do not need 'turf cannot be used for decorative purposes'. Add 'no turf in areas 8 feet wide or less'. Fire ordinance could be	changed to 'Valves' 3. Plants shall be grouped together. Plants that require irrigation shall be irrigated with a separate valve. 4. All non-turf is fine. Bring over BF bullet 'to allow them to grow" . 5. Use SL 'all non-turf plants shall be selected, planted, and spaced appropriately" . 6. Invasive plants shall be prohibited. Refer to CAL-IPC and reference BF/RRF. 7. Turf on slopes - go with suggested language and have requirement of no turf in areas of 8 feet or less. 8. Do not change the definition of 'turf'. 9. Fire-prone Please EMAIL comments per this fire distracts 10. Reference BF and CAL-IPC for the invasive plants. 11. Do NOT name plants 12. Architectural guidelines are already in planner ordinances. **WATER FEATURES** 1. Remove 'decorative'. 2. Recycled water use should be used 'when available on site'. 3. Check into invasive plant issue/wetland

Meeting adjourned *Next Section:*	part of an addendum. Invasive plants 'shall be prohibited as referenced by CAL-IPC. Architectural guidelines should be in an addendum. 11:35 AM **Be prepared to discuss and comment on:**	ponds. 4. Dan will check with City of Santa Rosa Building Dept. on language. Combine last two points of "surface area of water feature shall be included in high hydrozone" and "Pool and spa cover". If you have a 'walk-on pool cover' it becomes 'moderate' if you have no pool cover it is 'high' **MULCH, SOIL and AMENDMENTS** 1. DWR is fine but change from 2 inches to 3 inches. 2. Remove 'stabilizing mulch'. 3. Remove 'mulching portion'. 4. Change suggested language to 'soil condition, mulch and amendments'
Next Meeting: *RSVP:*	May 07, 2009 1 PM – 4 PM, 69 Stony Circle, City of Santa Rosa, CA ali@scwa.ca.gov	

Attendees:

Name	Agency	Email	Sign-in
Auch, Dan	Sweetwater Landscape	info@getpond.com	√
Bowers, Mark W.	Resource Design	mark@resource-design.com	√
Burgi, Charlene	Marin Municipal Water District Water Conservation	cburgi@marinwater.org	√
Costello, Pat	City of Napa Water Resources Analyst	pcostello@cityofnapa.org	√
Davidson, Ali	Sonoma County Water Agency	ali@scwa.ca.gov	√
Dowd Markarian,	Sustainable Design & City of	designers@bloomful.com	√

Susie	Santa Rosa Design RB		
Edman, Si	Earth Design Group	si@earthdesigngroup.com	√
Estournes, Peter	Gardenworks, Inc.	Peter@gardenworks-inc.com	√
Garbert, Susan	Cricket Landscapes	sgarbert@sonic.net	√
Hall, Geoff	Sentient Landscape, Inc.& SSU Sustainable Landscape	mail@sentientlandscape.com	√
Hart, Sierra	Allen Land Design; City of Sebastopol Design RB & APLD	sierra@allenlanddesign.com	√
Iribarne, Dave	City of Petaluma Water Conservation	diribarne@ci.petaluma.ca.us	√
Lesko, Diane	Sonoma County Water Agency	dlesko@scwa.ca.gov	√
Matteri, Rod	SBI Building Materials	rodmatteri@sbimaterials.com	√
Muelrath, Daniel	City of Santa Rosa Water Conservation	dmuelrath@srcity.org	√
Njuno, Shiko	City of Cotati	snjuno@ci.cotati.ca.us	√
O'Connell, Virginia	O'Connell Landscape, APLD	voc@oclandscape.com	√
Penry, Dave	Pacific Landscapes Inc.	Pdenry1950@aol.com	√
Piazza, Paul	Town of Windsor Water Conservation	ppiazza@townorwindsor.com	√
Tripathi, Jay	Gardenworks, Inc.	jt@gardenworks-inc.com	√
Wingfield, Amy	Sonoma County Permit and Resource Development	AWINGFIE@sonoma-county.org	√
Yates, Rosemary	Dream Home Gardens	Ryates@dreamhomegardens.com	√

05-07-09 CA WELO minutes cover the following items:

Meeting: California Water Efficient Landscape Ordinance
Location: City of Santa Rosa Municipal Services Center South, 69 Stony Circle, Santa Rosa, CA
Date: Thursday, May 07, 2009
Start time: 1:00 pm End time: 3:45 pm
Hosts: Dan Muelrath, City of Santa Rosa and Ali Davidson, Sonoma County Water Agency

Next Mtg: ***June 02, 2009***
Time: *9 AM - 12 noon*
Location: *City of Santa Rosa Municipal Services Center S. 69 Stony Circle, City of Santa Rosa*

Materials Distributed:

1. Sign-in sheet
2. Irrigation System Landscape Documentation Package

Minutes:

Topic	*Summary*	*Action Item*
Dan Muelrath 1:05 - 1:15	SWRCB Order discussion of 05-06-09 meeting, Sacramento. The State wants to see more water savings from the commercial landscape turf sites. The comments will come out in two weeks, and only then will each retailer publish the % commercial water to trim back. The SWRCB issues the water permit to SCWA.	
Dan Muelrath 1:15 - 1:20 *Section Two:* *492.9 Irrigation System* *1:20 -1:45*	Review of 492.7 Amendments, Mulching and Soil Conditioning and minutes for last meeting. Clarifying points: Item #1 dedicated irrigation submeter: 1. Suggested submeter for new construction at point of connection 2. Suggested language is to leave in the dedicated submeter. Item #2 weather based irrigation controllers: 1. Want a definition of weather based irrigation controller (do not use Smart controller) 2. You can have an on-site weather station 3. You can work with CIMIS	No additions or edits to last meetings minutes. Item #1: 1. Required submeter at point of connection 2. If you don't have a dedicated meter you can't have a submeter.

	Item #3, 4, 5 Irrigation system designed to ensure dynamic pressure: Item #6 Sensor.: 1. Rain sensors Item #7 : Install a valve at point of connection and at each of valve manifolds. Add a complete main shut-off valve. You should be able to shut the irrigation system off and not the house. Item #8 backflow prevention All agreed to language Item #9 High Flow Sensors Set a threshold - any time the meter is 1 ½ inch or larger a flow sensor or flow meter must be installed so they detect or cut off Item #10 Irrigation system shall be designed to prevent runoff, low head drainage, overspray. 1. Add" non-targeted areas" unless we call the sidewalk and curb a 'non-targeted area' 2. DWR language is preferred. 3. Point source irrigation language is opposed 4. No matched precip rate 5. Designed to prevent over drainage Item #11 Long, narrow or irregularly shaped areas including turf less than 8 feet in width in any direction shall be irrigation with subsurface or low flow tech. Item #12 Overhead irrigation shall not be permitted within 24 inches of any Item #13 Non-turf areas on slopes greater than 25% shall be irrigated with drip irrigation or other low volume. Hydrozone Item #14 - Each valve shall irrigate a hydrozone with similar site Item #15 Sprinkler heads and other emission devices shall be on selected based on what is appro. for the plant type within	Item #3, 4, 5 All agree Item #6 Sensor: Rain sensors only Item #8 backflow prev. All agreed to language Item #13: We need to meet our water budget but also not allow runoff

Meeting adjourned *Next Section:*	3:45 PM **Be prepared to discuss and comment on:** **Cont. Irrigation System 492.7 & MAWA calcs**	
Next Meeting: *RSVP:*	June 02, 2009 9 AM - 12 noon, 69 Stony Circle City of Santa Rosa, CA ali@scwa.ca.gov	

Attendees:

Name	Agency	Email
Allen, Andy	City of Santa Rosa Public Works & Engineering	aallen@srcity.org
Auch, Dan	Sweetwater Landscape	info@getpond.com
Bowers, Mark W.	Resource Design	mark@resource-design.com
Davidson, Ali	Sonoma County Water Agency	ali@scwa.ca.gov
Estournes, Peter	Gardenworks, Inc.	Peter@gardenworks-inc.com
Garbert, Susan	Cricket Landscapes	sgarbert@sonic.net
Grisso, Ryan	North Marin Water District	ryan@nmwd.com
Guthrie, Mark	Marin Municipal Water District	mguthrie@marinwater.com
Hall, Geoff	Sentient Landscape, Inc.& SSU Sustainable Landscape	mail@sentientlandscape.com
Iribarne, Dave	City of Petaluma Water Conservation	diribarne@ci.petaluma.ca.us
Kopshever, John	Sonoma Mountain Landscape, Inc.	sonoma_mountain@msn.com
Lane, Deb	City of Santa Rosa Water Conservation	dlane@srcity.org
Lesko, Diane	Sonoma County Water Agency	dlesko@scwa.ca.gov
Manchuck, Chris	Hydropoint	cmanchuck@hydropoint.com
Marizco, Pierre R.	Marizco Landscape Management	pierre@marizco.com
Muelrath, Daniel	City of Santa Rosa Water Conservation	dmuelrath@srcity.org
Myles, Carol	Myles Design, Petaluma, CA	carol@mylesdesign.com
Newman, Lebo	Coast Landscape Management	lebo@coastlm.com
Njuno, Shiko	City of Cotati	snjuno@ci.cotati.ca.us
O'Connell, Virginia	APLD, O'Connell Landscape	voc@oclandscape.com
Penry, Dave	Pacific Landscapes, Inc.	Dpenry1950@aol.com
Piazza, Paul	Town of Windsor Water Conservation	ppiazza@townorwindsor.com
Rasmussen, Dan	Huppe Landscape Company	dan@huppelandscape.com
Rich, Maureen	City of Rohnert Park	mrich@rpcity.org
Rinehart, Bill	Carlile Macy	brinehart@carlilemacy.com
Tripathi, Jay	Gardenworks, Inc.	jt@gardenworks-inc.com
Wingfield, Amy	Sonoma County Permit and Resource Development	AWINGFIE@sonoma-county.org

06-02-09 CA WELO minutes cover the following items:

Meeting: California Water Efficient Landscape Ordinance
Location: City of Santa Rosa Municipal Services Center South, 69 Stony Circle, Santa Rosa, CA
Date: Tuesday, June 02, 2009
Start time: 9:00 am End time: 11:35 am
Hosts: Dan Muelrath, City of Santa Rosa and Ali Davidson, Sonoma County Water Agency

Next Mtg: ***June 24, 2009***
Time: *9 AM - 12 noon*
Location: *City of Santa Rosa Municipal Services Center S. 69 Stony Circle, City of Santa Rosa*

Materials Distributed:

1. Sign-in sheet
2. Landscape Water Eff. Ord. Irrigation System handout, City of Santa Rosa

Minutes:

Topic	*Summary*	*Action Item*
Dan Muelrath 9:05 - 9:15	SWRCB Order discussion: Review of SCWA 06-01-09 press release, Ali City of Santa Rosa's goal for comm. turf is to stay in Tier 1, Dan M.	
Dan Muelrath 9:15 - 9:20 *Irrigation Systems 492.9* 10:00	Point Source irrigation is required in all non-turf area- is tabled until more attendees Long, narrow or irregularly shaped areas including turf less than 8 feet in width in any direction shall be irrigated with subsurface irrigation or low volume technology. Group #1: wants to keep turf in 8' as long as subsurface Group #2: do not want turf in less than 8 feet Group #3: want to keep turf in 8 feet with subsurface irrigation **Dan: CLCA made a promise to State Board of water budget at 60% over the next 8 years** Chris McNairy: 60% may potentially happen	All groups came to consensus not to include turf in areas less than 8 feet. NOTE - this section has been removed from the ORD 'Overhead irrigation shall not be permitted within 24 inches of any non-permeable surfaced'

10:10	Bill Rinehart: I favor a lower mawa at 60%. **New Ordinance calls for no run-off, no-overspray** Geoff - we would like to have the 24" strip for recycled water or the potential for recycled water. Dan: this policy does apply to recycled water but is regulated under a diff. Ord. Dan: if you design a 24" strip and install a 180 it will provide overspray. Chris: you just don't plant it or put shrubs in. A 12" strip is sufficient. Deb: any required setback is a design nightmare. Mark G: if there is a way to minimize this I would agree. Chris: Where is the water going to go? Off the sidewalk into the next planter area and is wasted water. Irrigation efficiency With rotors over 70% is great. You will never get to 100% eff. Deb: subsurface? Chris: could be point-source (bubblers drip). Mark G: deep percolation is an issue whereas next to sidewalks, gutters, road, streets, it needs to min. as much as possible. I'm concerned with the paths getting wet. If the path is appropriate sloped I will spend my time on the gutters filled with run-off non-permeable surface that has a greater width of 4' or 5'. Bill Rinehart: if this has been already removed from the Ord we should move on, in the end we have eff. factors, some over-spray is maintainable. Trying to prescribe in we will get weird DU. Dan: Plan check will be easier - standards to measure and not interpret. Dan R: a client wants to pay Huppe to move the heads because he doesn't like the brown spots. Mark G: MMWD is getting photos of run-off	

	and is getting asked by customers paying for run-off and asking why. Chris: the set-back can not be planted to turf (mulch, gravel or other porous material or turf if planted with subsurface drip). Dan: from a design standpoint what could you work with? If its shrubs it's not an issue. If turf is planted adjacent to curbs, gutters, driveways. If recycled it should run into	
10:25	**Non-turf areas on slopes greater than 25% shall be irrigated with drip** Sierra: low -percolation rate not to exceed ½" per hour. This allows for new tech to meet the requirement of percolation rate. Chris: on a slope (25%) irrigating from the top down this stream of water will be going OVER the plant. Deb: we chose 10% slope, 25% is too high. Mark G: we like new tech for slopes of less than 25% and would consider this on a case-by-case basis (the human factor). We are seeing run-off down the hill and off turf areas. Also, SMART controllers will take this into account but we haven't seen it in the field. Dan Muelrath: inspection and controlled prop will capture the human element in the beginning. Deb: would point-source have high precipitation rate? Chris: yes Geoff: reads the def of low volume irrigation .... Chris: it all about the management of water application. Dan: are there any products that we want to rule out? Trent: do SMART controllers take into account for wind? Chris: Hunters will if you add an anemometer if the wind reaches 7 miles per hour.	All agree to leave as is and add expand the definition to include multi-stream rotors to the language. All agree to 25% slopes

11:45	Hydrozone Dan: we just water to applied efficiency **Soil Management Plan** Dan: we might keep this in because it is in DWR's Ord. To we need this again in the irrigation section? It is already covered Deb: is infiltration rate or precipitation rate captured anywhere?	We all agree that sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type.
	Bill: Single valves shall not water multiple hydrozones. Dan: I can live this - no disagreements.	The design of the irrigation system shall conform to the hydrozones of the landscape design plan.
	The capacity of the irrigation system shall not exceed the capacity required for peak water demand based on water budget calculations: Chris: You have the appropriate design, signed off on the plan and the customer takes out the plants and installs turf - are they going to meet their water budget? Dan: Customers will pay more Bill: How then will this be regulated? Meter size is the only way. Amy: the County doesn't require meter. Diane: we are giving engineering a meter size or otherwise they get nailed by rechecking entitlements. Dan: the City doesn't retro check anymore. The only way we know is plan review Dan: SR checks the water use by a peak flow rate. So we could say the meter should be sized to meet the peak flow rate of the meter. Dan: Match the meter to the max. GPM Deb: do water-windows play a part in irrigation design Mark B: absolutely	NOTE - this following sentence will begin each section: The capacity of the irrigation system must be designed and installed to meet the irrigation criteria

	Dan: we are trying to write something we can enforce. Bill: the statement is redundant. Deb: if you have to run several valves at once you have to take into Dan: we can add a definition of low volume irrigation that is point source (netafim grid)	We will leave this all agreed on In mulched planting zones, the use of low volume irrigation is required to a maximum water infiltration into the root zone. Sprinkler head and other emission devices shall have matched precipitation rates.. We would like to see a def of matched precipitation as 20% per hour Head to head coverage is <u>required unless other stated my manuf.</u> language Swing joints or other riser-protection Use DWR language
11:10	Dan: check valves shall be installed to prevent low-head drainage - this is agreed by the group. Deb: all bubblers on everything Mark: no one will turn on the second system to keep the trees alive. Deb: when you have an opportunity at initial design we should put sep. valves with bubbler in. Mark: I'm for the trees being on sep valves. My issue is parking strips - the cost of adding valves is getting big. Deb: when you irrigate properly you get indirect benefits such as improved plant health.	We all agreed to the recommended language: Check valves or anti-drain valves are required for all irrigation systems. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers and turf.

	Independent hydrozones that mix plants of moderate and low water use plants or mod and high water use plant, may bed allowed if: Bill; This contradicts previous language. Do we want to go there? Dan: Do designers want the flexibility? Mark B: separate valves will solve mixing low or mod plants. Dan: do we agree to mix lows and moderates? Yes Individual Hydrozones that mix high and low..... Already covered in above agreement.	Yes, all agree that this shall be reworded and kept it in the Irrigation Standard section
11:25 *Meeting adjourned* *Next Section:*	On the landscape design plan and irrigation design plan, hydrozone areas shall be ..... 11:35 PM **Be prepared to discuss and comment on: Irrigation System Item #10 Hydrozones and MAWA calcs**	
Next Meeting: *RSVP:*	June 24, 2009 9 AM - 12 noon, 69 Stony Circle City of Santa Rosa, CA ali@scwa.ca.gov	

Attendees:

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