

Appendix

Water Conservation Ordinance Compliance Guide

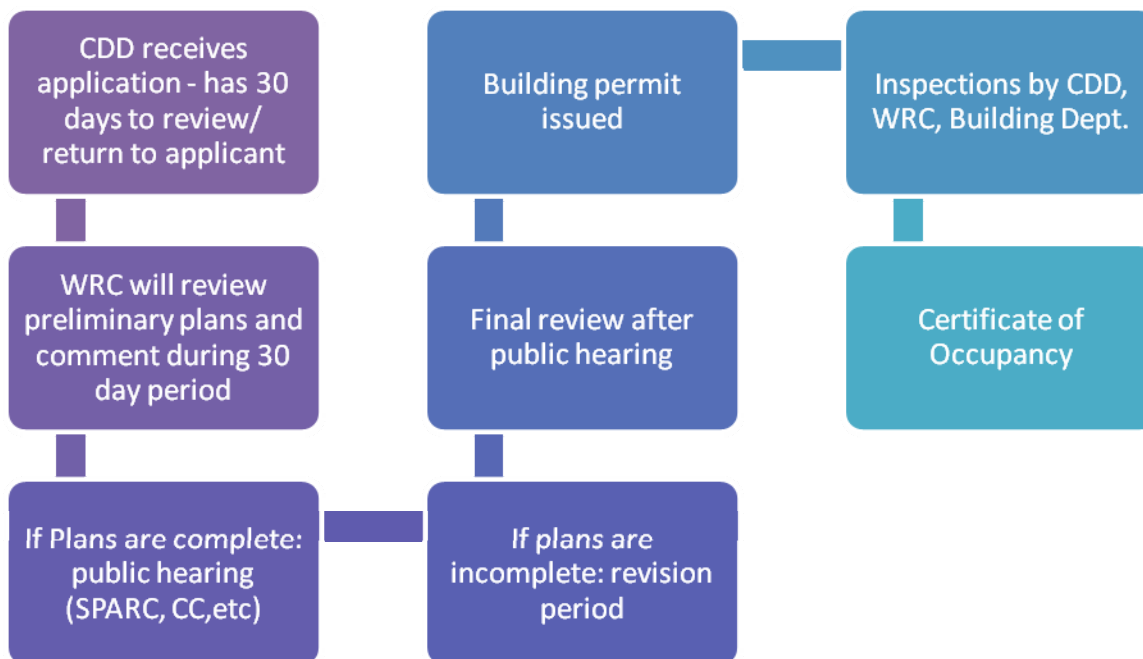
Submittal Forms

Water Conservation Ordinance Compliance Guide

This document is a guide meant to assist any interested party required to go through the plan review process for new construction or renovated construction with achieving compliance with the City of Petaluma's Water Conservation Ordinance. It is a checklist approach that will help answer any questions and streamline the application process. This is only a guide and is not the actual Water Conservation Ordinance. The applicant is responsible for ensuring that all of the applicable requirements of the Water Conservation Ordinance are met.

Overview of City of Petaluma's Development Review Process

The flow chart below outlines the development review process. During the initial applicant meeting with CDD staff, the applicant will be given a copy of the Water Conservation Ordinance (WCO) for review. A copy of the WCO can also be obtained from the Department of Water Resources and Conservation. Once the CDD receives an application for development, the City will review and comment on the preliminary plans within 30 days. During the **Completeness Review**, the applicant will show cause that the project will be in compliance with the WCO via written statement or through construction documents. If plans are complete, the project will move to a public hearing to be reviewed by SPARC or other appropriate entity. After **Completeness Review** and prior to issuing a building permit the applicant must submit all required construction documents (e.g. landscape and irrigation plans) for final approval. The plans will be reviewed by the City's Water Resources and Conservation Department and after all of the requirements of the WCO have been met, an approval statement will be forwarded to the CDD project manager. The applicant must receive final approval from CDD before construction can begin. Inspections may occur before, during and after construction. A Certificate of Occupancy will not be issued until final inspections have occurred and CDD has granted final approval.



The checklists below will help guide the applicant towards compliance with the City's Landscape Water Use Efficiency Standards. Use the checklist to help facilitate the design review process:

- The Project is a new landscape construction project - Utilize Checklist 1 below.
- The Project is a renovated landscape project - Utilize Checklist 2 below.
(A renovated landscape project is one in which more than 1000 square feet and less than 5000 square feet will be renovated within a twelve month period.)

Checklist 1

For Section 15.17.050.20 - Landscape Water Use Efficiency Standards for all New Single Family Residential and Multi-Family Residential, Commercial, Industrial and Institutional (CII) Landscape Installations:

The planting plan includes:

- Location and square footages of turf, high water use plants and low water use plants *per water meter*;
- Existing plant names and locations;
- A plant legend indicating Latin and common names of new plants, and sizes and quantities of new plants;
- Hardscaped areas, swimming pools, spas and water features.

The irrigation plan includes:

- Type(s) and size(s) of irrigation pipe;
 - Location, quantity and type of irrigation emission device(s) with manufacturer name and rated specifications of gallons per minute (gpm) or gallons per hour (gph) of each device;
 - Manufacturers recommended operating pressure in pounds per square inch (psi) and precipitation rates for each device;
 - Location and type of backflow prevention device and pressure reducing valve(s); valve type(s) and size(s);
 - Valve location(s);
 - Gallons per minute and valve circuit number for each valve circuit;
 - Manufacturer's name and type of automatic irrigation controller(s).
 - When more than one water meter exists for a particular landscape, each meter shall be designated and labeled as M-1, M-2, M-3, etc and noted on the irrigation plan, the meter number must be labeled with each valve number when more than one meter exists.
- The drainage and grading plan indicating site elevations is included.

- ❑ A dedicated irrigation meter(s) is specified for all CII and multi-family residential projects.
- ❑ Pressure regulation is specified where site static water pressure will exceed 80 pounds per square inch (psi).
- ❑ A Backflow Prevention device is specified.
- ❑ A master valve is specified after the backflow prevention device and before all irrigation system valves.
- ❑ Soils in landscaped areas are specified to be amended to promote optimal plant health and maximum water infiltration.
- ❑ The use of California native plants have been designed into this project (highly encouraged).

Irrigation systems shall be designed and installed to maximize efficiency during operation. System design shall include but not be limited to:

- ❑ All overhead spray irrigation systems other than drip irrigation applications are specified to be a brake rotary type and be a multi-stream, multi-trajectory rotating stream sprinkler with matched precipitation rates. The sprinkler shall produce and maintain a matched precipitation rate no greater than 0.6" per hour throughout the arc adjustment range and radius adjustment range, (up to 25% of radius reduction), when spaced at 50% of wetted diameter. For applications where the radius is designed to exceed thirty feet, water conserving rotor type sprinkler heads shall be permitted.
- ❑ Individual hydrozones are irrigated by separate valve circuits.
- ❑ Irrigation systems are designed to eliminate run off and overspray.
- ❑ Check valves are specified to prevent low head drainage.
- ❑ Head-to-head coverage is specified for all turf areas.

Turf and High Water Use Plant Restrictions:

- ❑ Turf and high water use plants occupy no more than a combined 20% of the total irrigated landscaped area.
- ❑ Turf areas are less than 8 feet wide.
- ❑ Turf does not exist on slopes greater than 10%.
- ❑ All automatic irrigation controllers are ET Controllers or Smart Controllers or otherwise have the ability to automatically adjust irrigation start-times, run-times and/or run days based on local or site specific moisture levels, weather and/or reference evapotranspiration data. These controllers or devices is labeled by the Irrigation Association (IA) as a Smart Water Applications Technology (SWAT) and has passed the SWAT testing protocols by 100 percent in all testing parameters.
- ❑ A minimum 3 inch layer of porous mulch is specified for all irrigated areas other than turf, ground cover, or annual color areas.
- ❑ Rain shut-off devices are specified on any controller not equipped to halt irrigation during and after rain as appropriate.

- All water features utilize recirculating water.

Checklist 2

For Section 15.17.050.30 - Landscape Water Use Efficiency Standards for *Renovated* Commercial, Industrial and Institutional (CII) and Multi Family Residential (MFR) Landscape projects. Renovated landscape construction shall be defined as any landscape project considered for installation where more than 1,000 square feet and up to 5,000 square feet of the existing landscaping will be renovated.

- A Renovation Project Description Form has been submitted.
- Pressure regulation is specified where site static water pressure will exceed 80 pounds per square inch (psi).
- A Backflow Prevention device is specified.
- A master valve is specified after the backflow prevention device and before all irrigation system valves.
- Soils in landscaped areas are specified to be amended to promote optimal plant health and maximum water infiltration.
- The use of California native plants have been designed into this project (highly encouraged).

Irrigation systems shall be designed and installed to maximize efficiency during operation. System design shall include but not be limited to:

- All overhead spray irrigation systems other than drip irrigation applications are specified to be a brake rotary type and be a multi-stream, multi-trajectory rotating stream sprinkler with matched precipitation rates. The sprinkler shall produce and maintain a matched precipitation rate no greater than 0.6" per hour throughout the arc adjustment range and radius adjustment range, (up to 25% of radius reduction), when spaced at 50% of wetted diameter. For applications where the radius is designed to exceed thirty feet, water conserving rotor type sprinkler heads shall be permitted.
- Individual hydrozones are irrigated by separate valve circuits.
- Irrigation systems are designed to eliminate run off and overspray.
- Check valves are specified to prevent low head drainage.
- Head-to-head coverage is specified for all turf areas.

Turf and High Water Use Plant Restrictions:

- Turf and high water use plants occupy no more than a combined 20% of the total irrigated renovated landscaped area.
- Turf areas are less than 8 feet wide.
- Turf does not exist on slopes greater than 10%.

- ❑ All automatic irrigation controllers are ET Controllers or Smart Controllers or otherwise have the ability to automatically adjust irrigation start-times, run-times and/or run days based on local or site specific moisture levels, weather and/or reference evapotranspiration data. These controllers or devices is labeled by the Irrigation Association (IA) as a Smart Water Applications Technology (SWAT) and has passed the SWAT testing protocols by 100 percent in all testing parameters.
- ❑ A minimum 3 inch layer of porous mulch is specified for all irrigated areas other than turf, ground cover, or annual color areas.
- ❑ Rain shut-off devices are specified on any controller not equipped to halt irrigation during and after rain as appropriate.
- ❑ All water features utilize recirculating water.
- ❑ Authorization to Proceed has been granted by the City.



Commercial, Institutional, Industrial (CII) and Multi-Family Residential (MFR) Landscape Renovation Project Description form (Section 15.17.060.30 Applicants Only)

Prior to installation of the proposed landscape renovation project, the applicant shall submit this form to the City.

Renovation Project Information

Date: _____

Project Address: _____

Project Location (i.e. entire site, east of Building A, etc.): _____

Square Footages of Existing Plant Material to be Removed:

Turf: _____ High Water Use Plants: _____ Low Water Use Plants: _____

Square Footages of New Plant Material to be Installed:

Turf: _____ High Water Use Plants: _____ Low Water Use Plants: _____

Applicant Information

Applicant Name: _____

Applicant Address: _____

Applicant Telephone Number: _____ Fax: _____

Email: _____

Property Owner Authorization- By signing below, the property owner of the above stated project authorizes the applicant described above to complete and submit all required documentation necessary for project compliance of these Landscape Water Use Efficiency Standards (signature needed only if property owner is different from applicant, i.e. property manager or landscape professional).

Property Owner Signature

Date



CII and MFR Landscape Renovation Project Description Form (Continued)

Project Address: _____

Please check the corresponding box indicating that the project has been installed according to the City's Landscape Water Use Efficiency Standards:

- Pressure regulation is specified where site static water pressure will exceed 80 pounds per square inch (psi).
- A Backflow Prevention device is specified.
- A master valve is specified after the backflow prevention device and before all irrigation system valves.
- Soils in landscaped areas are specified to be amended to promote optimal plant health and maximum water infiltration.
- The use of California native plants have been designed into this project (highly encouraged). Irrigation systems shall be designed and installed to maximize efficiency during operation.

System design shall include but not be limited to:

- All overhead spray irrigation systems other than drip irrigation applications are specified to be a brake rotary type and be a multi-stream, multi-trajectory rotating stream sprinkler with matched precipitation rates. The sprinkler shall produce and maintain a matched precipitation rate no greater than 0.6" per hour throughout the arc adjustment range and radius adjustment range, (up to 25% of radius reduction), when spaced at 50% of wetted diameter. For applications where the radius is designed to exceed thirty feet, water conserving rotor type sprinkler heads shall be permitted.
- Individual hydrozones are irrigated by separate valve circuits.
- Irrigation systems are designed to eliminate run off and overspray.
- Check valves are specified to prevent low head drainage.
- Head-to-head coverage is specified for all turf areas.

Turf and High Water Use Plant Restrictions:

- Turf areas are designed for demonstrated recreational or functional purposes only.
- Turf and high water use plants occupy no more than a combined 20% of the total irrigated renovated landscaped area.
- Turf areas are less than 8 feet wide.
- Turf does not exist on slopes greater than 10%.
- All automatic irrigation controllers are ET Controllers or Smart Controllers or otherwise have the ability to automatically adjust irrigation start-times, run-times and/or run days based on local or site specific moisture levels, weather and/or reference evapotranspiration data. These controllers or devices is labeled by the Irrigation Association (IA) as a Smart Water Applications Technology (SWAT) and has passed the SWAT testing protocols by 100 percent in all testing parameters.
- A minimum 3 inch layer of porous mulch is specified for all irrigated areas other than turf, ground cover, or annual color areas.
- Rain shut-off devices are specified on any controller not equipped to halt irrigation during and after rain as appropriate.
- All water features utilize recirculating water.

By signing below, the applicant acknowledges that the above project is in compliance with the City's Landscape Water Use Efficiency Standards and the City's Water Waste Prohibition Ordinance:

Applicant Signature

Date

CII/MFR Renovation Project Description forms are to be submitted to the City of Petaluma's Water Resources and Conservation Department Attn: Landscape Plan Review, 202 N. McDowell Blvd, Petaluma CA, 94954. Or Fax to 707-778-4508 or emailed to conservation@ci.petaluma.ca.us.



Landscape Water Efficiency Standards
Project Completion Form

Section II.A. and II.B. Applicants Only

Project Name: _____

Project Address: _____

I hereby acknowledge that the above listed project has been installed as per City approved landscape and irrigation plans and is in compliance with the City of Petaluma's Landscape Water Use Efficiency Standards and the City of Petaluma's Water Waste Prohibition Ordinance. I acknowledge that the above listed project will not exceed the Landscape Water Use Budget allocated to the project by the City of Petaluma. In the event that the project exceeds the allocated water budget, I authorize representatives from the City of Petaluma to conduct a water use audit of the project and will implement the recommendations resulting from such audit.

Property Owner Signature

Date

Print Name