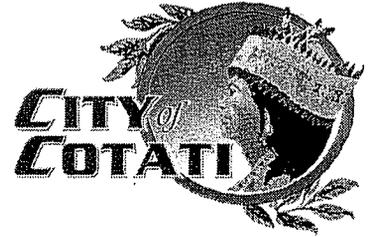


City of Cotati
Sonoma County, California



September 9, 2010

Mr. Peter Brostrom
California Department of Water Resources
Water Use and Efficiency Branch
Post Office Box 942836
Sacramento, California 94236-0001

SUBJECT: Water Efficient Landscape Ordinance

Dear Mr. Brostrom,

Per Assembly Bill 1881, please accept this letter as notification that the City of Cotati has adopted its own Water Efficient Landscape Ordinance (WELo). Attached is a copy of the Ordinance, including the findings. Please contact me if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Fredrickson", enclosed within a large, hand-drawn oval.

Kevin Fredrickson
Engineering Technician
City of Cotati Public Works
(707) 665-4238

kff/tim

ORDINANCE NO. 826

ORDINANCE OF THE COUNCIL OF THE CITY OF COTATI REPEALING AND REENACTING EXISTING COTATI CITY CODE CHAPTER 17.34 LANDSCAPING STANDARDS, AND AMENDING PORTIONS OF CHAPTER 17.90 DEFINITIONS AND THE TABLE OF CONTENTS OF THE CITY OF COTATI LAND USE CODE

THE PEOPLE OF THE CITY OF COTATI DO ENACT AS FOLLOWS:

Section 1.

Chapter 17.34 Landscaping Standards is repealed in its entirety and reenacted as Chapter 17.34 Water Efficient Landscaping Standards to read as follows:

**CHAPTER 17.34
WATER EFFICIENT LANDSCAPING STANDARDS**

Sections:

- 17.34.010 Purpose.
- 17.34.020 Applicability.
- 17.34.030 Definitions.
- 17.34.040 Landscape and irrigation plans.
- 17.34.050 Landscape location requirements.
- 17.34.060 Landscape standards.
- 17.34.070 Irrigation Standards
- 17.34.080 Documentation for Compliance
- 17.34.090 Alternate Provisions
- 17.34.100 Maintenance of landscape areas.

17.34.010 Purpose.

This chapter establishes requirements for landscaping to control soil erosion, conserve water, improve soil quality, enhance the appearance of development projects, screen potentially incompatible land uses, preserve the integrity of neighborhoods, and improve pedestrian and vehicular traffic and safety. Improve ecosystem services, water infiltration, air quality, and reduce heat and glare. In addition, Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use. The provisions of this chapter are intended to 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 the loss of water and other natural resources.

Cotati has a Mediterranean climate – hot dry summers and wet winters. Plantings require an establishment period and then become an established landscape. Plant communities have a succession, and as a community can better adapt to low water environments. Wherever possible compatible plant communities should be established.

Cotati drains exclusively to the Laguna de Santa Rosa, which was first listed in 1992 as impaired under the Clean Water Act Section 303(d). Landscaped areas must be properly designed and maintained to eliminate or minimize discharges of sediment, fertilizers, and plant wastes to the storm drain system, which drains to the Laguna de Santa Rosa. Irrigation water must be applied appropriately, avoiding runoff, to minimize discharges of these pollutants.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.020 Applicability.

Except as otherwise indicated, the provisions of this chapter apply to all land uses as follows:

- A. New Projects. Each new nonresidential, single family residential and multifamily residential project shall provide landscaping in compliance with this chapter, except as shown below.
 1. New single family construction, new multifamily construction with 4 or less units on a single parcel and the rehabilitation of existing single family and multifamily landscapes that require a building permit shall not be required to comply with Sections 17.34.040(C)(2) and 17.34.080(A)(3)(a & b) of this chapter if the landscaping is homeowner-provided and/or homeowner-hired with a total project landscape area less than or equal to 2,500 square feet. The other provisions of this chapter shall apply to these uses.
- B. Existing Development. The approval of a building permit, minor use permit, use permit, minor variance, variance, or application for design review for physical alterations and/or a change in use within an existing development may include conditions of approval requiring compliance with specific landscaping and irrigation requirements of this chapter as determined by the review authority.
- C. This chapter shall not apply to the following:
 1. Registered historical sites;
 2. Ecological restoration or mined-land reclamation projects that do not require permanent irrigation systems.

D. This Chapter applies to cemeteries, golf courses, parks, playgrounds, schools and sports fields, except that they are exempt from the turf area limit. Turf will be allowed for these uses in all areas where the functional need for turf can be demonstrated. The other provisions of this chapter shall apply to these uses.

E. Timing of Installation. Required landscape and irrigation improvements shall be installed before final City inspection. The installation of landscaping for a residential project may be deferred for a maximum of ninety days in compliance with Section 17.64.070 (Performance guarantees) of this title

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.030 Definitions.

Definitions of certain technical terms and phrases used in this chapter are included under "Landscaping standards" in Article 9 (Glossary) of this land use code.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.040 Landscape and irrigation plans.

A. Preliminary Landscape Plan. A preliminary landscape plan shall be submitted as part of each application for new development, or the significant expansion (e.g., twenty-five percent or more of floor area), or redevelopment of an existing use, as determined by the director.

B. Final Landscape Plan. After planning permit approval, a final landscape plan shall be submitted as part of the application for a building permit. A final landscape plan shall be approved by the review authority before the start of grading or other construction, and before the issuance of a building permit.

C. Content and Preparation.

1. Required Information. Preliminary landscape plans and final landscape plans shall contain the information required for landscape plans by the department. However, at a minimum, these plans shall include the following information:

a. Preliminary Landscape Plans. Location of proposed materials, including the identification of groundcovers, shrubs, and trees, as well as a completed Appendix A, Maximum Applied Water Allowance (MAWA) and 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.

b. Final Landscape Plans. Detailed drawings and specifications clearly identifying the name, size, and precise location of all materials, as well as the precise location and technical description of the irrigation system and its individual components. A completed Appendix A, MAWA, and a completed Appendix B, Hydrozone Table. The landscape plan shall be designed to integrate stormwater best management practices (BMPs). Where slopes exceed 10%, a grading plan shall be included that accurately and clearly identifies finished grades, drainage patterns, pad elevations, spot elevations and storm water retention improvements, and mimic the pre-development hydrology as much as practical. The grading design plan shall contain the following statement: "I have complied with the criteria of Chapter 17.34 (Landscaping and Water Efficient Landscaping Standards) of the City of Cotati Municipal Code 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.

2. Preparation by Qualified Professional. Each landscape plan submitted in compliance with this chapter shall be prepared by a California licensed landscape architect, licensed landscape contractor, certified nurseryman, or other professional determined by the director to be qualified, based on the requirements of state law.

D. Review and Approval. After initial application, the director shall review each preliminary landscape plan and final landscape plan to verify its compliance with the provisions of this chapter. The design review committee may approve the submittal in compliance with this chapter and Section 17.62.040(E) of this title, or may deny or require changes to a submittal if it is not in compliance.

E. Statement of Surety. When required by the director, security in the form of cash, performance bond, letter of credit, or instrument of credit, in an amount equal to one hundred fifty percent of the total value of all plant materials, irrigation, installation, and maintenance shall be posted with the city for a two-year period from final inspection. The director may require statements of surety for phased development projects, a legitimate delay in landscape installation due to seasonal requirements (including adverse weather conditions) and similar circumstances where it may not be advisable or desirable to install all approved landscaping before occupancy of the site.

F. Changes to Approved Landscape Plans. The director may authorize minor changes to an approved landscape plan in compliance with Section 17.64.090 (Changes to an approved project) of this title.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.050 Landscape location requirements.

Landscaping shall be provided in all areas of a site subject to development with structures, grading, or the removal of natural vegetation, as follows:

A. Setbacks. The setback and open space areas required by this land use code, and easements for utilities and drainage courses shall be landscaped, except where:

1. Occupied by approved structures or paving;
2. They are retained in their natural state, and the review authority determines that landscaping is not necessary to achieve the purposes of this chapter.

B. Unused Areas. Any area of a project site not intended for a specific use, including a commercial pad site intended for future development, shall be landscaped unless retained in its natural state, and the review authority determines that landscaping is not necessary to achieve the purposes of this chapter.

C. Requirements by Zoning District. The minimum area of each site to be landscaped with materials permeable to water shall comply with Table 3-6:

Table 3-6
Area of Landscaping Required

TABLE INSET:

Land Use Type	Minimum Area of Landscaping Required
Single-family residential	Front yards, side yards, rear yards and all common areas not occupied by decks, patios, walkways or other approved landscape features.
Other residential (duplex and multifamily)	All open areas not occupied by decks, patios, walkways or other approved landscape features.
Commercial	20 percent, except for a reduction approved by the review authority due to parcel size or zero lot line construction, none required in the CD zone
Industrial	20 percent
All others	All the discretion of the review authority

D. Parking Areas. Parking areas shall be landscaped as follows:

1. Landscape Materials. Landscaping shall be provided throughout the parking lot as a combination of groundcover, shrubs, and trees.
2. Curbing. Areas containing plant materials shall be protected in compliance with Section 17.36.090(J) of this title.
3. Perimeter Parking Lot Landscaping. All surface parking areas shall be screened from streets and adjoining properties, and the open areas between the property line and the public street right-of-way shall be landscaped.
 - a. Adjacent to Streets, Where Allowed by Section 17.36.090 or Preexisting Conditions.
 - i. A parking area for a nonresidential use adjoining a public street, where allowed by Section 17.36.090 (Parking design and development standards) of this title shall be designed to provide a landscaped planting strip between the street right-of-way and parking area equal in depth to the setback required by the applicable zoning district or fifteen feet, whichever is more.
 - ii. A parking area for a residential use, except for a single-family dwelling, shall be designed to provide a landscaped planting strip between the street right-of-way and parking area equal in depth to the setback required by the applicable zoning district.
 - iii. The landscaping shall be designed and maintained to screen cars from view from the street to a minimum height of thirty-six inches, but shall not exceed any applicable height limit for landscaping within a setback.
 - iv. Screening materials may include a combination of plant materials, earth berms, solid decorative masonry walls, raised planters, or other screening devices which meet the intent of this requirement.
 - iv. Shade trees shall be provided at a minimum rate of one for every twenty-five linear feet of landscaped area.

vi. Plant materials, signs, or structures within a traffic safety sight area of a driveway shall comply with Section 17.30.040(E) of this title.

b. Adjacent to Side or Rear Property Lines. A parking area for a nonresidential use shall provide a perimeter landscape strip at least eight feet wide (inside dimension) where the parking area adjoins a side or rear property line. The requirement for a landscape strip may be satisfied by a setback or buffer area that is otherwise required to be eight feet or greater. Trees shall be provided within the landscape strip at the rate of one for each twenty-five linear feet of landscaped area.

c. Adjacent to Structures. When a parking area is located adjacent to a nonresidential structure, a minimum eight-foot wide (inside dimension) landscape strip shall be provided adjacent to the structure, exclusive of any building entries, or areas immediately adjacent to the wall of the structure that serve as pedestrian accessways.

d. Adjacent to Residential Use. A parking area for a nonresidential use adjoining a residential use shall provide a landscaped buffer setback with a minimum ten-foot width between the parking area and the common property line bordering the residential use. A solid, continuous decorative masonry wall or fence and landscape buffer shall be provided along the property line, except for approved access points, to address land use compatibility issues (e.g., nuisance noise and light/glare), as determined by the review authority to be necessary. Trees shall be provided at the rate of one for each twenty-five linear feet of landscaped area.

4. Interior Parking Lot Landscaping.

a. Amount of Landscaping. Multifamily, commercial, and industrial uses shall provide landscaping within each outdoor parking area at a minimum ratio of ten percent of the gross area of the parking lot. Trees not less than five feet in height and fifteen-gallon container in size shall be planted throughout the parcel and along any street frontage. Trees shall be planted in parking areas so that fifty percent shading of parking lot pavement is achieved within ten years. Street trees shall shade thirty percent of the street and sidewalk within ten years. At a minimum, one shade tree shall be provided for every five parking spaces.

b. Location of Landscaping. Landscaping shall be evenly dispersed throughout the parking area, as follows:

i. Orchard-style planting (the placement of trees in uniformly spaced rows) is encouraged for larger parking areas.

ii. Parking lots with more than fifty spaces shall provide a concentration of landscape elements at primary entrances, including, at a minimum, specimen trees, flowering plants, enhanced paving, and project identification.

iii. Landscaping shall be located so that pedestrians are not required to cross unpaved landscaped areas to reach building entrances from parked cars. This shall be achieved through proper orientation of the landscaped fingers and islands, and by providing pedestrian access through landscaped areas that would otherwise block direct pedestrian routes.

c. Groundwater Recharge. The design of parking lot landscape areas shall consider, and may, where appropriate, be required to include provisions for the on-site detention of storm water runoff, pollutant cleansing, and groundwater recharge.

E. Subdivisions. A new subdivision shall be designed and constructed to provide landscaping as follows:

1. Residential Subdivisions. A residential subdivision shall be provided landscaping in the form of one street tree for each twenty-five feet of street frontage, in the planter strip or other location approved by the review authority, landscaping with irrigation facilities for any common areas or other open space areas within the subdivision, and any additional landscaping required by the review authority. The species of street trees shall be as required by the review authority, and the plantings shall comply with the city's standard specifications.

2. Nonresidential Subdivisions. Nonresidential subdivisions shall be provided landscaping as required by the review authority.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.060 Landscape standards.

A. Landscape Design. The required landscape plan shall be designed to integrate all elements of the project (e.g., buildings, parking lots, and streets) to achieve their aesthetic objectives, desirable microclimates, and minimize water and energy demand.

1. Plant Selection and Grouping. Plant materials shall be selected for: low water demand and drought tolerance; use of appropriate native species; adaptability and relationship to the Cotati environment, and the geological and topographical conditions of the site; color, form, and pattern; ability to provide shade; and soil retention capability, in compliance with this chapter.

a. Selected plants shall not cause the Estimated Total Water Use (ETWU) to exceed the Maximum Applied Water Allowance (MAWA) – see calculation in Appendix A.

b. Plants having similar water use shall be grouped together in distinct hydrozones and 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 in the same hydrozone

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. The protection and preservation of native species and natural areas is encouraged, and may be required by conditions of approval.

g. Fire prevention shall be addressed on sites in the rural or highly vegetated areas of the city identified by the fire district as being fire prone by providing fire-resistant landscaping buffers between development areas and naturally vegetated areas, as identified by the review authority.

2. Stormwater Management. Rain gardens, cisterns, and other landscape features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended.

3. **Minimum Dimensions.** Each area of landscaping that utilizes overhead spray irrigation shall have a minimum interior width of eight feet within the residential, commercial, and industrial zoning districts. Wherever this land use code requires a landscaped area of a specified width, the width shall be measured exclusive of any curb or wall.

4. **Height Limits.** Landscape materials shall be selected, placed on a site, and maintained to not:

a. Exceed a maximum height of thirty-six inches within a required traffic safety visibility area (Section 17.30.040(E)), except for trees with the lowest portion of their canopy maintained at a minimum height of eight feet above grade; or

b. Interfere with the proper operation of solar energy equipment or passive solar design on adjacent parcels.

5. **Safety Requirements.** Landscape materials shall be located so that at maturity they do not:

a. Interfere with safe sight distances for vehicular, bicycle, or pedestrian traffic;

b. Conflict with overhead utility lines, overhead lights, or walkway lights; or

c. Block pedestrian or bicycle ways.

B. Plant Material. Required landscape plans shall include groundcovers, shrubs, and trees, which shall be selected and installed in compliance with this chapter, and as follows:

1. **Size at Time of Planting.** Plant materials shall be sized and spaced to achieve immediate effect and shall not be less than a five-gallon container for specimen shrubs, a fifteen-gallon container for trees, and a one-gallon container for mass planting, unless otherwise approved by the review authority.

2. Trees. Tree planting shall comply with the following standards. Existing trees shall be retained and preserved wherever and whenever possible, in compliance with Chapter 17.54 (Tree Preservation and Protection) of this title.

- a. Trees shall not be planted under any structure that may interfere with normal tree growth (e.g., an eave, overhang, balcony, light standard, or other similar structure).
- b. Root barriers shall be provided for trees in landscape planters less than ten feet in width or located five feet or closer to a permanent structure.
- c. Trees shall be staked in compliance with standards provided by the department.
- d. Number of trees:
 - i. Parking area: refer to Section 17.34.050(D) of this chapter.
 - ii. Street trees: one per twenty-five-foot length of right-of-way. The review authority may modify this requirement depending on the chosen tree species and its typical spread at maturity.

3. Groundcover and Shrubs. Landscape areas shall include the following types of plant materials:

- a. Groundcover, shrubs, turf, or other types of plants that are predominantly drought tolerant;
- b. A minimum of two, five-gallon size shrubs shall be provided for every six feet of distance along street frontages, or as approved by the review authority;
- c. Groundcover shall be provided throughout the landscaped area and shall be spaced to achieve full coverage within one year;
- d. Artificial groundcover or shrubs shall not be allowed;
- e. Crushed rock, redwood chips, pebbles, stone, and similar materials shall be allowed up to fifteen percent of the total required landscape area;

f. Nonturf areas (e.g., shrub beds) shall be top dressed with bark chip, mulch, or approved alternative.

4. Turf shall be limited to twenty-five percent of the total landscaped area on the site. All turf shall be a drought-tolerant variety. No turf shall be allowed:

- a. In any area of eight feet or less in width; or
- b. On any slope exceeding ten percent. A swale or level buffer zone of twenty-four (24) inches shall be provided between bermed turf areas and any hardscape (e.g., any street, walkway, or similar feature).
- c. Street medians, traffic islands, planter strips or bulbouts of any size.

C. Water Features. Decorative water features (e.g., fountains, ponds, pools) shall have recirculating water systems. Recycled water shall be used when available onsite.

D. Soil Conditioning and Mulching. A soil test for horticultural suitability shall be required at time of landscape installation in each landscaped area. The soil shall be prepared and/or amended to be suitable for the landscape to be installed, in compliance with this chapter.

1. A minimum one-foot depth of non-mechanically compacted soil shall be available for water absorption and root growth in planted areas.
2. In areas with spray irrigation (as opposed to bubbler or drip irrigation), organic amendment shall be incorporated into the soil to a minimum depth of eight inches at a minimum rate of six cubic yards for each one thousand square feet of landscape area, or as specified by amendment recommendations from a soils laboratory report.
3. A minimum of a three-inch layer of porous mulch shall be applied to all exposed soil surfaces of non turf areas within the landscaped area. Nonporous material (e.g., plastic sheeting), shall not be placed under the mulch; however, porous landscape fabric is allowed.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.070 Irrigation Standards

A. Irrigation. 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. Equipment Requirements.

- a. Dedicated irrigation or submeter must be specified
- b. All landscaped areas shall be irrigated using weather based or other sensor based self-adjusting irrigation controllers. Controllers shall utilize a rain sensor/shut off device and have the ability to revert to historical weather data. Dual or multi-program function controller with separated valves and circuits shall be used when the project contains more than one type of landscape treatment (e.g., turf, groundcover, shrub, tree areas), or a variety of sun exposures.
- c. 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.
- d. Check valves are required where elevation differential may cause low head drainage.
- e. Pressure regulation and/or booster pumps shall be installed to effect correct operating pressure per manufacturer's recommendations for each type of irrigation head or drip method.
- f. Isolation valves (Manual shut-off valves; such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection of the water supply and before each valve or manifold, to minimize water loss in case of an emergency (such as a main line break) or routine repair.
- g. Backflow prevention devices shall be required in accordance with City Engineering Standards or applicable State and local requirements, as determined by the City Engineer.
- h. Point source irrigation is required where plant height at maturity will affect the uniformity of an overhead system.
- i. Slopes greater than 15% shall be irrigated with point source or other low-volume irrigation technology.
- j. A single valve shall not irrigate hydrozones that mix high water use plants with moderate or low use plants.

- k. Trees shall be placed on separate valves except when planted in turf areas
 - l. Sprinkler heads, rotors and other emission devices on a valve shall have matched precipitation rates, unless otherwise directed by manufacturer's recommendations
 - m. Head to head coverage is required unless otherwise directed by manufacturer's recommendations.
 - n. Swing joints or other riser protection components are required on all risers.
2. Installation. Irrigation delivery systems shall be installed so that water does not run off or overspray onto adjacent pavement, sidewalks, structures, or other non landscaped areas. Overhead irrigation shall not be permitted within 24" of any continuous hardscape that flows into the curb and gutter. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material.
3. Scheduling of Irrigation. Watering shall be scheduled at times of minimal wind conflict and evaporation loss. Two seasonal water schedules shall be posted at the controller. One schedule shall be designed to address the initial establishment period of the plants and the second schedule shall be designed to address an established landscape.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.080 Documentation for Compliance

- A. The following documentation shall be submitted to the city as part of the requirements of this section:
- 1. Preliminary Landscape Plan. The Preliminary Landscape Plan shall comply with sections 17.34.040 (A.) and 17.34.040 (C.)(1.)(a.) of this chapter.
 - 2. Final Landscape Plan. The Final Landscape Plan shall comply with sections 17.34.040 (B.) and 17.34.040 (C.)(1.)(b.) of this chapter.
 - 3. Completion of Installation. Upon completion of installation of the landscape, the landscape design principal or owner shall submit to the building department a completed Appendix C, the Certificate of Completion, stating that the project has been installed as designed, or with documentation of suitable substitutions.

- a. The certificate must be accompanied by an irrigation audit that contains the following:
 - i. Operating pressure of the irrigation system
 - ii. Distribution uniformity of the overhead irrigation
 - iii. Precipitation rate of overhead irrigation
 - iv. Report of any overspray or broken irrigation equipment
 - v. Backflow certification by a certified inspector, if applicable
 - vi. Irrigation schedule including:
 - (i.) Plant establishment irrigation schedule
 - (ii.) Regular irrigation schedule by month including: plant type, root depth, soil type, slope factor, shade factor, irrigation interval (days per week), irrigation run times, 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 complies with Section 17.34.100 (Maintenance of landscape areas) of this chapter.
- c. A final City inspection shall be performed. An extension of any permit to complete landscape and irrigation installation shall be requested and must be receive approval from the director prior to occupancy.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.090 Alternate Provisions.

A. Alternative Provisions. The review authority:

1. Shall consider and may allow the substitution of design alternatives and innovations that will lead to a greater or equivalent reduction in water consumption than the measures identified in this chapter; and

2. If allowed, accept documentation methods, water allowance determinations, and landscape and irrigation design requirements of the State of California Model Water Efficient Landscape Ordinance in lieu of the requirements of Sections 17.34.040, 17.34.050, 17.34.060 and 17.34.070 of this chapter where it can be demonstrated that compliance with the requirements of the state model ordinance will lead to a greater or equivalent reduction in water consumption than the measures identified in this section.

(Ord. 766 § 2 Exh. A (part), 2004).

17.34.100 Maintenance of landscape areas.

A. **Maintenance Required.** All site landscaping shall be maintained in a healthful and thriving condition at all times. Irrigation systems and their components shall be maintained in a fully functional manner consistent with the originally approved design and the provisions of this chapter. Regular maintenance shall include checking, adjusting, and repairing irrigation equipment; resetting automatic controllers; aerating and dethatching turf areas; adding/replenishing mulch, fertilizer, and soil amendments; pruning; trimming; and weeding all landscaped areas. Regular maintenance programs shall include the trimming of vegetation as necessary to maintain the effective functioning of solar energy facilities and passive solar design features installed both on-site and on adjacent properties.

B. **Maintenance Agreement.** At the discretion of the director, a Maintenance Agreement may be required. The form and content of the agreement shall be approved by the city attorney and the director.

C. **Water Waste Prohibited.** Water waste in existing developments resulting from inefficient landscape irrigation leading to excessive runoff, low head drainage, overspray, and other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, or structures is prohibited. Efficient watering practices shall be conducted in compliance with this chapter.

D. **Enforcement.** Failure to maintain landscape areas in compliance with this section is a nuisance, and shall be subject to abatement in compliance with the municipal code, and/or the applicable land use permit may be revoked.

(Ord. 766 § 2 Exh. A (part), 2004).

Section 2.

Chapter 17.80.020 Definitions of specialized terms and phrases, L. Definitions, "L.", Landscape and Tree Preservation is amended to read as follows:

Landscape and Tree Preservation. The following terms are defined for the purposes of Chapters 17.34 (Landscaping and Water Efficient Landscaping Standards), and 17.54 (Tree Preservation and Protection) of this title:

1. "Backflow Prevention Device" means an approved device installed to City standards which will prevent backflow or back-siphonage into the City potable water system.
2. "Booster Pumps" 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, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.
4. "Compost" means the decayed remains of organic matter that has rotted into a natural fertilizer.
5. "Drought-tolerant resistant cool season turf" means cool season grasses that can tolerate drought stress. These grasses usually require high water use irrigation scheduling to stay green and vital, but will survive under limited water (e.g., turf-type tall fescues, Medallion, and Rebel).
6. "Ecological Restoration Project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
7. "Effective Precipitation (Eppt)" 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 fitting emission device that delivers water slowly from the system to the soil.
9. "Established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.
10. "Establishment period of plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment.

11. "ET Adjustment Factor" means a factor 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.
12. "Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specific specified time.
13. "Flow Rate" means the rate at which water flows through pipes, and valves and emission devices, measured in (gallons per minute, gallons per hour, or cubic feet per second).
14. "Functional need (for turf)" means turf planting which serves a functional or practical need rather than purely aesthetic purpose. Examples include: athletic fields and pedestrian circulation areas.
15. "Hardscapes" any durable material (pervious and non-pervious).
16. "Head to Head Coverage" means full coverage from one sprinkler head to the next.
17. "High-Flow Sensor" means a device for sensing the rate of fluid flow.
18. "High water use plantings" means turf, annuals, container plantings, and other plants recognized as high water use (e.g., Rhododendrons or Birch) or plants documented as having a plant factor equal to or greater than 0.6 per the Water Use Classification of Landscape Species document (<http://www.owue.water.ca.gov/flocs/wucols00.pdf>), as it currently exists or may be amended in the future.
19. "Hydrozone" means a landscape area having plants with similar water needs. Typically, a hydrozone is served by a valve or set of valves with the same type of irrigation hardware and schedule.
20. "Infiltration" means the process of water entering the soil. When the soil is in good condition or has good soil health, it has stable structure and continuous pores to the surface. This allows water from rainfall to enter unimpeded throughout the rainfall event. A low rate of infiltration is often produced by surface seals resulting from weakened structure and clogged or discontinuous pores.
21. "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).
22. "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).

23. "Irrigation circuit" means a section of an irrigation system, including the piping and sprinkler heads or emitters, which is operated by a single remote control valve.

24. "Irrigation Efficiency (IE)" the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this ordinance is 0.71.

25. "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.

26. "Isolation Valve" means a valve used to isolate a portion of the piping system.

27. "Landscaped Area" means the entire parcel less the building footprint, driveway, hardscapes (e.g., decks, patios, sidewalks, gravel or stone walks and other pervious or non-pervious areas), non-irrigated portions of parking lots and non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation). Water features, such as pools and fountains, utilizing potable water are included in the calculation of the landscaped area.

28. "Lateral Line" means non-pressurized pipe that is located downstream of an irrigation valve (Class 200 or equivalent is not acceptable).

29. "Low-Head Drainage" means water that flows out of the system after the valve turns off due to elevation changes within the system.

30. "Low water use plants" means "Mediterranean Region" and native trees, shrubs and groundcover (such as rosemary), juniper, most native oaks, and other plants which are recognized as drought resistant or low water use when established, or plants documented as having a plant factor less than or equal to 0.6 per the Water Use Classification of Landscape Species document (<http://www.owue.water.ca.gov/flocs/wucols00.pdf>), as it currently exists or maybe amended in the future.

31. "Main Line" means the pressurized pipeline that delivers water from the water source to the valve or outlet (Class 200 or equivalent is not acceptable).

32. "Maximum Applied Water Allowance (MAWA)" means for design purposes, the upper limit of annual applied water for the established landscape.

33. "Microclimate" means a section of a landscaped site with unique climatic conditions that affect the amount of water plants within the area use (e.g., courtyards, tree understory areas, and median islands).
34. "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.
35. "Moderate water use plants" means ornamental trees, shrubs, ground covers, perennials and other plants recognized as moderate water per the Water Use Classification of Landscape Species document (<http://www.owue.water.ca.gov/does/wucols00.pdf>), as it currently exists or may be amended in the future.
36. "Mulch or Porous Mulch" means any organic material such as leaves, bark, straw, compost or other 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.
37. "Nonmechanically compacted soil" means soil which has not undergone engineered compaction procedures.
38. "Operating Pressure" means the pressure when water is flowing through the irrigation system.
39. "Organic amendment" means any fully organic material added to the soil to improve soil structure, and other physical properties of the soil (e.g., compost, composted sawdust, peat moss, and redwood soil conditioner).
40. "Overhead Irrigation" means those systems that deliver water through the air (e.g., pop-ups, impulse sprinklers, spray heads, rotors, micro-sprays, etc).
41. "Overspray" means water which is discharged from an overhead irrigation system outside the desired planting area, especially water which wets adjacent hard surfaces (e.g., patios, sidewalks, and streets).
42. "Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.
43. "Plant communities" means a group of interacting plants.
44. "Plant factor" means a factor that, when multiplied by reference evapotranspiration, ETo, estimates the amount of water used by needed plants. Plant factors cited in this ordinance are derived from the Department of Water

Resources 2000 publication "Water Use Classification of Landscape Species.", as it currently exists or may be amended in the future.

45. "Plant succession" means the replacement of one plant community by another often progressing to a stable community called the climax.

46. "Point of Connection" means the point at which an irrigation system taps into the main water supply line.

47. "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.

48. "Precipitation Rate" means the rate of application of water measured in inches per hour.

49. "Pressure Regulation" means a valve that automatically reduces the pressure in a pipe.

50. "Project Applicant" means the individual or entity submitting a Landscape Documentation Package, to request a permit, plan check or design review from the City. A project applicant may be the property owner or his or her designee.

51. "Rain Sensor or Rain Shut-Off Device" means a system component which automatically shuts off and suspends the irrigation system when it rains.

52. "Recreational Area" means an area dedicated to active play or recreation such as sports fields, school yards, picnic grounds, or other areas with intense foot traffic, parks, sports fields and golf courses where turf provides a playing surface.

53. "Recycled Water" means tertiary treated water which results from the treatment of wastewater, is suitable for direct beneficial use, and conforms to the definition of disinfected tertiary recycled water in accordance with state law.

54. "Reference Evapotranspiration (ET_o)" 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 grass that is well watered.

55. "Runoff" means water which is not absorbed by the soil to which it is applied and runs off onto other areas. Runoff usually occurs when water is applied at a rate greater than the infiltration rate of the soil, and is especially problematic on slopes and on heavy clay soils.

56. "Soil quality" means the ability of soils to 1) effectively cycle nutrients, 2) minimize runoff and erosion and maximize water-holding capacity, 3) absorb and filter excess nutrients, sediments, and pollutants, 4) provide a healthy rooting environment and create habitat for diverse plants, animals, and microbes living in and above the soil.

57. "Soils Laboratory Report" means the analysis of a soil sample to determine nutrient content, composition and other characteristics, including contaminants.

58. "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, where turf provides a playing surface.

59. "Sprinkler Head" means a device that delivers water to the landscape through a spray nozzle.

60. "Static Water Pressure" means the pipeline or municipal water supply pressure when water is not flowing.

61. "Station" means an area served by one valve or by a set of valves that operate simultaneously.

62. "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 City.

63. "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.

64. "Valve" means a device used to control the flow of water in the irrigation system.

65. "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.

66. "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.

67. "Water-saving techniques (to mitigate runoff from slopes)" mean landscape design techniques which either allows irrigation to be applied at a rate close to the infiltration rate of the soil or which captures and recycles runoff.

68. "Weather Based or Sensor Based Irrigation Control Technology" means a device that uses local weather and landscape conditions to tailor irrigation schedules to actual conditions on the site or historical weather data.

69. "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, as it currently exists or may be amended in the future.

Section 3.

The Table of Contents of the City of Cotati Land Use Code, under the heading "Chapter 17.34 – Landscaping Standards", on page 5 is amended to read as follows:

Chapter 17.34 – Water Efficient Landscaping Standards

- 17.34.010 Purpose.
- 17.34.020 Applicability.
- 17.34.030 Definitions.
- 17.34.040 Landscape and irrigation plans.
- 17.34.050 Landscape location requirements.
- 17.34.060 Landscape standards.
- 17.34.070 Irrigation Standards
- 17.34.080 Documentation for Compliance
- 17.34.090 Alternate Provisions
- 17.34.100 Maintenance of landscape areas.

Section 4. Findings. The Council finds that:

- a. The California Legislature's adoption of the Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881, Laird) under the California Code of Regulation, Title 23, Waters Division 2, Department of Water Resources requires local agencies to adopt the State updated model efficient landscaping ordinance or their own landscaping ordinance that is at least as effective in conserving water as the updated model ordinance.
- b. Consequently, updating the City's Landscaping Ordinance in relation to water efficient landscaping is mandated by State Law and provides a basis upon which to further reduce water consumption within the City's service area.

- c. The adoption of this ordinance is at least as effective as the State updated model ordinance as it allows for a lower water budget and applies to a wider range of projects.
- d. The adoption of this ordinance will conserve the City's water supply and ensure the sustainability and reliability of the City's water supply and prevent waste.

Section 5. Environmental Determination. The Council finds that the adoption and implementation of this ordinance is exempt from the provisions of the California Environmental Quality Act under section 15061(b)(3) because there are no foreseeable impacts.

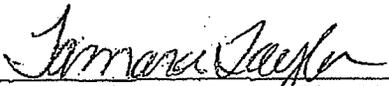
Section 6. Severability. If any section, subsection, sentence, clause, phrase or word of this ordinance is for any reason held to be invalid and/or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 7. Effective Date. This ordinance shall take effect 30 days following its adoption.

IT IS HEREBY CERTIFIED that the foregoing ordinance was duly introduced and legally adopted at a regular meeting of the City Council of the City of Cotati held on the 26th day of May, 2010 by the following vote, to wit:

COLEMAN-SENGHOR	<u>Yes</u>
ORCHARD	<u>Yes</u>
GILARDI	<u>Yes</u>
HARVEY	<u>Yes</u>
LANDMAN	<u>Yes</u>

Approved: 
Robert Coleman-Senghor, Mayor

Attest: 
Tamara Taylor, Deputy City Clerk

Approved as to form: 
Richard R. Rudnansky, City Attorney

APPENDIX A (Sheet 1 of 2)
 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 (ETWU) must be less than your Maximum Applied Water Allowance (MAWA).

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

$$MAWA = (ETo - Eppt) (0.62) ((0.6 \times LA) + (0.4 \times SLA))$$

Where:

ETo = Annual Net Reference Evapotranspiration (inches)

Eppt = Effective Precipitation (25% of annual rainfall)

0.62 = Conversion Factor (to gallons per square foot)

0.6 = ET Adjustment Factor

LA = Total Landscape Area (square feet) including SLA, if any

0.4 = The additional ET Adjustment Factor for Special Landscape Area (1.0 - 0.6 = 0.4)

SLA = Portion of Landscape Area identified as Special Landscape Area (square feet)

A.) Net Evapotranspiration Calculation (ETo - Eppt)

ETo = 42.0

$$Eppt = 0.25 \times \frac{24}{\text{Annual Rainfall}} = 6$$

$$\text{Net Evapotranspiration} = ETo - Eppt = 36$$

B.) Adjusted Landscape Area

	x 0.6		
(LA)	(Adjustment Factor)	=	+

	x 0.4		
(SLA)	(Adjustment Factor)	=	=

Sum of Adjusted Landscape Area =

$$MAWA = (ETo - Eppt) \times 0.62 \times \text{Sum of Adjusted Landscape Area} =$$

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

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

Where:

ETo = Annual Net Reference Evapotranspiration (inches)

Eppt = Effective Precipitation (25% of annual rainfall)

0.62 = Conversion Factor (to gallons per square foot)

PF = Plant Factor

HA = Hydrozone Area (square feet)

IE = Irrigation Efficiency (minimum 0.71)

SLA = Portion of Landscape Area identified as Special Landscape Area (square feet)

A.) Net Evapotranspiration (ETo - Eppt) from Part 1. of Appendix A =

B.) Adjusted Landscape Area (See Appendix B) * - Does not include SLA (if any)

	x	0.3
*LW Area (Sq. Ft)		PF

=

	x	0.6
*MW Area (Sq. Ft.)		PF

=

	x	1.0
*HW Area (Sq. Ft.)		PF

=

Sum of Adjusted Landscape Area

=

	÷	
PF x HA		IE

=

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

	+	
SLA (if any)		

=

ETWU =

	x	0.62	x	
ETo - Eppt				

 =

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.	
	Facsimile No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner or his/her designee:

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

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

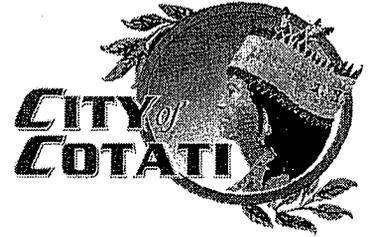
" I/we certify that the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package. Additionally, a landscape audit and irrigation maintenance schedule 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
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Landscape Contractor Signature	Date
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City of Cotati

Sonoma County, California



April 6, 2010

Mr. Simon Eching
California Department of Water Resources
Water Use and Efficiency Branch
Post Office Box 942836
Sacramento, California 94236-0001

SUBJECT: Water Efficient Landscape Ordinance

Dear Mr. Eching,

Per Assembly Bill 1881, please accept this letter as notification that the City of Cotati is adopting its own Water Efficient Landscape Ordinance (WELO). The City is presently in the midst of the process and expects to submit a copy of its Ordinance and accompanying documents to your attention later this year. Please contact me if you have any questions or concerns.

Sincerely,

Kevin Fredrickson
Engineering Technician
City of Cotati Public Works
(707) 665-4238

kff/tim

