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MEMBERS OF THE CITY COUNCIL

SAM ALLEVATO  
LAURA FREESE  
THOMAS W. HRIBAR  
MARK NIELSEN  
DR. LONDRES USO

February 2, 2010

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

**RE: Response to January 26, 2010 Letter; Compliance with AB 1881 Requirements.**

Dear Mr. Eching,

Thank you for your letter dated January 26, 2010 requesting documentation for compliance with AB 1881. Enclosed please find the following documents:

1. City of San Juan Capistrano Ordinance #966
2. City of San Juan Capistrano Resolution #09-12-15-01

If you have any questions or comments, please feel free to contact me at (949) 443-6320.

Sincerely,

  
David Contreras  
Senior Planner

*San Juan Capistrano: Preserving the Past to Enhance the Future*



ORDINANCE NO. 966

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO, CALIFORNIA, AMENDING AND RESTATING SECTION 9-3.527 OF CHAPTER 3 OF TITLE 9 OF THE SAN JUAN CAPISTRANO MUNICIPAL CODE PERTAINING TO LANDSCAPE WATER CONSERVATION STANDARDS

**WHEREAS**, the City Council finds that the amendment of specific zoning provisions regulating landscape water efficiency is necessary pursuant to Government Code § 65595 and State regulations which will shortly come into effect; and,

**WHEREAS**, the waters of the State are of limited supply and are subject to ever increasing demands; and,

**WHEREAS**, the San Juan Capistrano Municipal Code Section 9-3.527 regulates landscape standards to include but not limited to use of low water use landscape, water conservation, irrigation design, stormwater management; and,

**WHEREAS**, the Governor signed the Water Conservation in Landscape Act of 2006, Assembly Bill 1881, on September 28, 2006 and requires that Cities are required to adopt a Water Efficiency Landscape Ordinance no later than January 1, 2010; and,

**WHEREAS**, the continuation of the City's economic prosperity is dependent on the availability of adequate supplies of water for future uses; and,

**WHEREAS**, it is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource; and,

**WHEREAS**, landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development; and,

**WHEREAS**, landscape design, installation, maintenance, and management can and should be water efficient; and,

**WHEREAS**, Article X, Section 2 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 of water; and,

**WHEREAS**, incentive-based water use efficiency programs are actively implemented within the City; and,

**WHEREAS**, landscape plan submittal and review has been a long standing practice in the City; and,

**WHEREAS**, the City Council's purpose and intent of this ordinance establishing landscape water efficiency standards is to promote the health, safety, and general welfare of the residents and businesses within the City; and,

**WHEREAS**, the City Council finds that environmental review is not required under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Sections 15307 (the activity will enhance or protect a natural resource) and 15060(c)(3) (the activity is not a project as defined in Section 15378), Title 14, California Code of Regulations, because adoption of the ordinance will conserve water, a natural resource, and otherwise has no potential for resulting in a physical change to the environment, directly or indirectly; and,

**WHEREAS**, the City Council has considered information presented on the proposed Ordinance by City Staff, the public and other interested parties at a duly noticed Public Hearing; and,

**THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:**

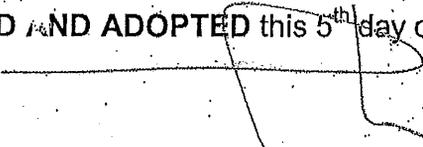
**Section 1.** The Notice of Exemption is hereby certified.

**Section 2.** San Juan Capistrano Municipal Code Section 9-3.527 is amended pursuant to provisions set forth in Exhibit A.

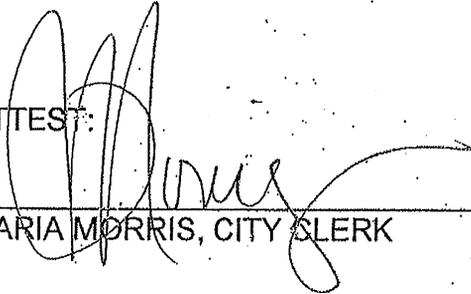
**Section 3.** Effective Date. This Ordinance shall take effect and be in force thirty (30) days after its passage.

**Section 4.** City Clerk's Certification. The City Clerk shall certify to the adoption of this Ordinance and cause the same to be posted at the duly designated posting places within the City and published once with fifteen (15) days after passage and adoption as required by law; or, in the alternative, the City Clerk may cause to be published a summary of this Ordinance and a certified copy of the text of this Ordinance shall be posted in the Office of the City Clerk five (5) prior to the date of adoption of this Ordinance; and, within fifteen (15) days after adoption, the City Clerk shall cause to be published the aforementioned summary and shall post a certified copy of this Ordinance, together with the vote for and against the same, in the Office of the City Clerk.

PASSED, APPROVED AND ADOPTED this 5<sup>th</sup> day of January 2010.

  
DR. LONDRES USO, MAYOR

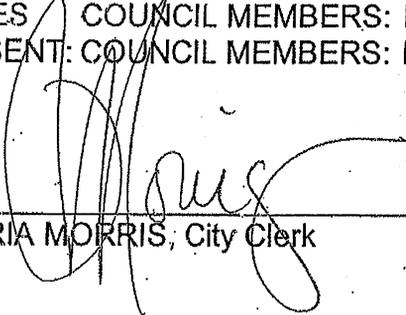
ATTEST:

  
MARIA MORRIS, CITY CLERK

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss.  
CITY OF SAN JUAN CAPISTRANO )

I, **MARIA MORRIS**, appointed City Clerk of the City of San Juan Capistrano, do hereby certify that the foregoing is a true and correct copy of **Ordinance No. 966** which was regularly introduced and placed upon its first reading at the Regular Meeting of the City Council on the 15<sup>th</sup> day of December 2009 and that thereafter, said Ordinance was duly adopted and passed at the Regular Meeting of the City Council on the 5<sup>th</sup> day of January 2010 by the following vote, to wit:

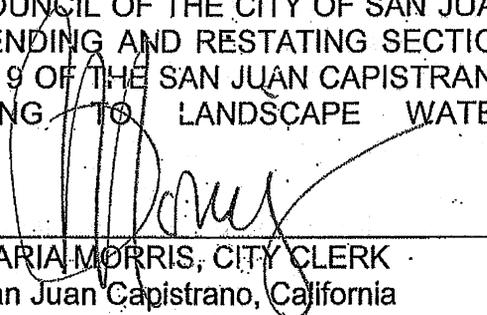
AYES: COUNCIL MEMBERS: Allevato, Hribar, Nielsen, and Mayor pro tem Freese  
NOES: COUNCIL MEMBERS: None  
ABSENT: COUNCIL MEMBERS: Mayor Uso

  
MARIA MORRIS, City Clerk

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss AFFIDAVIT OF POSTING  
CITY OF SAN JUAN CAPISTRANO )

I, **MARIA MORRIS**, declare as follows: That I am the duly appointed and qualified City Clerk of the City of San Juan Capistrano; That in compliance with State laws, Government Code section 36933(1) of the State of California, on the 16<sup>th</sup> day of December 2009, at least 5 days prior to January 5, 2010, the date of adoption of the ordinance, I caused to be posted, in the City Clerk's Office a certified copy of the proposed Ordinance entitled:

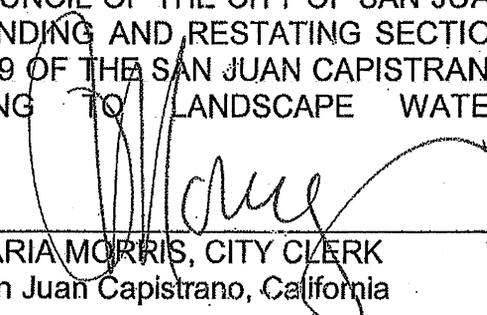
AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO, CALIFORNIA, AMENDING AND RESTATING SECTION 9-3.527 OF CHAPTER 3 OF TITLE 9 OF THE SAN JUAN CAPISTRANO MUNICIPAL CODE PERTAINING TO LANDSCAPE WATER CONSERVATION STANDARDS

  
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MARIA MORRIS, CITY CLERK  
San Juan Capistrano, California

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss AFFIDAVIT OF POSTING  
CITY OF SAN JUAN CAPISTRANO )

I, **MARIA MORRIS**, declare as follows: That I am the duly appointed and qualified City Clerk of the City of San Juan Capistrano; That in compliance with State laws, Government Code section 36933(1) of the State of California. On the 7<sup>th</sup> day of January 2010 I caused to be posted, in the City Clerk's office, a certified copy of **Ordinance No. 966**, adopted by the City Council on January 5, 2010 entitled:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO, CALIFORNIA, AMENDING AND RESTATING SECTION 9-3.527 OF CHAPTER 3 OF TITLE 9 OF THE SAN JUAN CAPISTRANO MUNICIPAL CODE PERTAINING TO LANDSCAPE WATER CONSERVATION STANDARDS

  
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MARIA MORRIS, CITY CLERK  
San Juan Capistrano, California

**Section 9-3.527 Landscape (water conservation standards)**

(a) Purpose and Intent. The purpose of this section is to establish standards for quality and sustainability of landscaping and irrigation systems related to urban runoff, water use efficiency, and landscape health and diversity. The procedures established by this section will ensure that the City continues to protect the natural environment and watershed, provide clean air and water, prevent erosion, and offer fire protection while maintaining aesthetics and community character. These requirements are consistent with the goals, objectives, and policies of the City General Plan. The provisions of this section are enacted to:

- (1) Protect and preserve water resources within the community in accordance with the Conservation and Open Space Element of the City General Plan;
- (2) Comply with State-mandated water-efficient landscape standards which require cities to adopt water efficient landscape standards;
- (3) Ensure protection of water resources from excessive use of water in commercial, industrial, public, and residential development;
- (4) Achieve visually pleasing landscape environments with the use of native trees and plants;
- (5) Establish review procedures to evaluate reports, plans, and landscape information pertaining to existing and proposed development projects;
- (6) Provide landscape design standards which achieve water conservation while also contributing to an aesthetically enriched community landscape;
- (7) Establish a structure for planning, designing, installing, and maintaining and managing water efficient landscapes in existing and new construction and rehabilitated projects; and,
- (8) Comply with Assembly Bill 1881 and all requirements set forth in City, State and Federal Law, including those portions of the California Plumbing Code applicable to irrigation systems.

(b) Applicability. After January 1, 2010, except as expressly exempted or conditionally exempted by this Section, the requirements of this Section shall apply to:

- (1) New construction and/or rehabilitated landscapes of Public agency projects with a landscape area equal to or greater than 2,500 square feet.
- (2) New construction and/or rehabilitated Common area landscapes in homeowners associations (HOA) with a landscape area equal to or greater than 2,500 square feet.

(c) Exemptions. The requirements of this Section do not apply to the following projects or sites:

- (1) Registered local, state or federal historical sites.
- (2) Orchards located within General Plan-designated open space and/or agri-business lands.
- (3) Agricultural lands as determined by the Community Development Director.
- (4) Habitat restoration projects that do not require a permanent irrigation system.
- (5) Plant collections, as part of botanical gardens and arboretums open to the

public.

(6) Fuel modification zones as determined by the Orange County Fire Authority (OCFA).

(7) Cemeteries.

(8) Projects proposing non-drought-tolerant turf or grass for use as ball fields, football fields, soccer fields, golf courses including but not limited to any other sport field may be granted an exemption by the final decision making body.

(9) Single family homes.

(d) Requirements and Process. All landscapes that are mandated to comply with this Section shall comply with the following requirements and standards:

(1) An application for a Landscape Permit shall be filed with the Community Development Department, along with the required fee as established by resolution of the City Council. The application shall include a Landscape Documentation Package which shall consist of the following elements:

(A) Water Efficient Landscape Worksheet. A Water Efficient Landscape Worksheet shall be required for all projects subject to this section with a landscape area equal to or greater than 2,500 square feet. The worksheet is contained in the Water Efficient Landscape Guidelines.

(B) Landscape Design Plan. A Landscape Design Plan shall be required for all projects subject to this section. For efficient water use, the landscape design plan shall be designed to conserve water and include the use of low water use and California native plants. The landscape design plan shall include the following:

(i) A plant palette that demonstrates that the Total Water Use in the total landscape area does not exceed the Maximum Applied Water Allowance (MAWA). To achieve such levels of compliance the following is highly recommended:

(a) Protection and preservation of native species and natural vegetation.

(b) Selection of water-conserving California native/friendly plant species and turf species.

(c) Selection of trees or shrubs watered by a single valve that are based on water conservation criteria.

(ii) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. To encourage the efficient use of water, the following are required:

(a) Use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate.

(b) Recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure such as buildings, sidewalks, power lines, and similar structures.

(c) Consider the solar orientation for plant placement to maximize summer shade and winter solar gain for buildings.

(d) Turf shall not be allowed on slopes greater than 10% where 10% means 1 foot of vertical elevation change for every 10 feet of horizontal length (rise divided by run x 100 = slope percent), unless said turf area is designed as part of a swale to capture runoff or rainflows.

(e) The use of turf shall not be mandated by architectural guidelines and Code Covenants & Restrictions (CC&Rs) of a common interest development, which include single family, community apartment projects, condominiums, planned developments, and/or stock cooperatives. In cases where turf is used in the front yard areas, turf shall not exceed 20% of the total landscaped area, unless it is determined by the City to be a dedicated sports field.

(f) A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. Such landscapes shall comply with the requirements and standards as set forth by the Orange County Fire Authority (OCFA).

(g) The use of invasive and/or noxious plant species as listed on the California Invasive Plant Council (Cal-IPC) "Invasive Plant Inventory" for Southern California is prohibited.

(h) The architectural guidelines and Code Covenants & Restrictions (CC&Rs) of a common interest development, which include single family, community apartment projects, condominiums, planned developments, and/or stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting or limiting the use of low-water use plants or artificial turf and irrigation systems.

(e) Water Features. For the purpose of this section, water feature shall include fountains, waterfalls, ponds, basins, and similar features. Water features shall adhere to the following requirements:

(1) Re-circulating water shall be used for decorative water features such as fountains and ponds.

(2) Where available, recycled water shall be used as a source for decorative water features.

(3) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

(4) Pool and Spa covers are highly recommended to reduce evaporation.

(f) Mulch and Amendments. A minimum three (3) inches 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. Stabilizing mulching products shall be used on slopes and the mulching portion of the seed/mulch mix in hydro-seeded applications shall meet the mulching requirement. Mulch areas are encouraged to include the use of weed barrier fabrics. The use of weed removal chemicals is strongly discouraged. All weeds should be removed by hand and mechanical means when feasible. Mulch shall be of a variety that is suitable for native plants.

(g) Parking lots and sidewalks. Parking lots shall be screened from streets and private property with landscaping and/or native landscape berming. If berming is not feasible; areas shall utilize a combination of landscaping and low screen walls. Paved parking lots shall provide shade trees to adequately shade the parking lot and reduce the heat island effect. All landscape, including interior, perimeter and islands, shall be designed with area drains to prevent runoff onto parking areas and adjacent private property. Where feasible, parking lots shall be designed to drain into landscape planter areas. Finger planters shall have a minimum five (5) foot wide planted area.

Trees planted within fifteen (15) feet from sidewalks or any paved surface or structure shall be installed with deep root barriers which shall extend six (6) feet on all sides of each tree. Tree grates or low curbs shall be installed around trunks where trees are planted within sidewalks or other paved surfaces. Said tree grates shall be no larger than 3 feet square. Utility boxes shall not be placed on sidewalks or paved areas and shall be screened with shrubs, unless such features are placed underground.

(h) Irrigation Design Plan. An Irrigation Design Plan shall be required for all projects subject to this section. For efficient use of water, the project irrigation system shall meet all the requirements listed in this section and the manufacturer's specifications and recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An Irrigation Design Plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

(1) Irrigation system. The irrigation system shall include the following:

(A) Dedicated landscape water meters are required on landscape areas greater than 5,000 square feet to facilitate water management, or as otherwise determined by the Utilities Director.

(B) Weather-based irrigation controllers or soil moisture-based controllers or other self-adjusting irrigation controllers shall be required for irrigation scheduling in all irrigation systems.

(C) The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

(i) If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps or other devices shall be installed to meet the required dynamic pressure of the irrigation system.

(ii) Static water pressure, dynamic or operating pressure and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.

(D) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

(E) 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, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

(F) Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall adhere to the applicable Municipal Code sections for additional backflow prevention requirements.

(G) High flow sensors that detect and report high flow conditions created by system damage or malfunction are required for areas greater than 5,000 square feet.

(H) The irrigation system shall be designed to completely disallow any runoff,

low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways or structures.

(I) Relevant information from the Soils Management Report, such as soil type and infiltration rate, shall be used when designing irrigation systems.

(J) The design of the irrigation system shall conform to the hydrozones of the Landscape Design Plan.

(K) The irrigation system must be designed and installed to meet the irrigation efficiency criteria as described in section pertaining to the Maximum Applied Water Allowance (MAWA).

(L) In mulched planting areas, the use of low volume irrigation such as emitters, bubblers, or soakers is required to maximize water infiltration into the root zone.

(M) Sprinkler heads and other emission devices shall have matched precipitation rates within each valve and hydrozone.

(N) When used, spray heads are required to provide head to head coverage. Sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

(O) Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to walkways, sidewalks, parking lots, pathways and other high traffic areas.

(P) Check valves or anti-drain valves are required for all irrigation systems.

(Q) Narrow or irregularly shaped areas, including turf, less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or low overhead volume irrigation technology.

(R) Overhead irrigation shall not be permitted within five (5) feet of any non-permeable surface. 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. These restrictions may be modified if the landscape area is adjacent to permeable surfacing and no overspray or runoff occurs, or the irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in this section. Prevention of overspray and runoff shall be confirmed during the irrigation audit after installation.

(S) Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.5 inches per hour or shall not exceed the calculated infiltration rate of the soil if less than 0.5. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates that no runoff or erosion will occur. Prevention of runoff and erosion shall be confirmed during the irrigation audit.

(2) Hydrozones. Planting areas shall be irrigated based on hydrozones as determined on the landscape plan.

(A) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions and plant materials with similar water use.

(B) Sprinkler heads and other emission devices shall be selected based on

what is appropriate for the plant type within that specific hydrozone.

(C) Trees shall be placed on separate valves from shrubs, groundcovers and turf, and irrigated with bubblers.

(D) Individual hydrozones may not mix plants of differing plant factors.

(E) Individual hydrozones that mix high and low water use plants shall not be permitted.

(F) On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter or other designation. On the irrigation design plan, designate the zones irrigated by each valve, and assign the same corresponding number to each valve. Use this valve number in the Hydrozone Information Table. This table can also assist with pre-inspection and final inspection of the irrigation system, and programming the irrigation controller.

(G) The irrigation design plan, at a minimum shall contain:

(i) Location and size of separate water meters for landscape.

(ii) Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, and other emission devices, moisture sensing devices, rain switches, quick couplers, pressure regulators and backflow prevention devices.

(iii) Static water pressure at the point of connection to the public water supply.

(iv) Flow rate (gallons per minute), application rate (inches per hour) and design operating pressure (pressure per square inch) for each station.

(v) Recycled water irrigation system notes and details.

(vi) The following statement shall be included on the irrigation design plan: "I have complied with the criteria of the City of San Juan Capistrano Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan".

(vii) The signature of a licensed landscape architect, certified irrigation designer, irrigation consultant, licensed landscape contractor or any other person, authorized to design the irrigation system.

(3) Grading Design Plan. A Grading Design Plan shall be required for all projects that are subject to Section 9-2.323(f). Such projects shall ensure that the design includes:

(i) A concept that shows all irrigation and that demonstrates that normal rainfall will remain within the property lines and will not drain on to non-permeable hardscapes.

(ii) Avoid disruption of natural drainage patterns and undisturbed soil.

(iii) Avoid soil compaction in landscape areas.

(iv) The grading design plan shall contain the following statement: "I have complied with the criteria of the City of San Juan Capistrano Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the grading design plan".

(i) Stormwater Management.

(1) Stormwater management practices minimize runoff and increase infiltration, which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff

and to increase on-site retention and infiltration is required. All projects must comply with the most recently adopted Stormwater Permit.

(2) Project applicants shall refer to the City's Municipal Code title 8 and the Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.

(3) Rain gardens and other landscape features that increase rain water capture and infiltration are highly recommended.

(j) Application filing. The Community Development Director shall prescribe the form of application and the supporting information required to initiate the Landscape Permit application review. Once the application and fee is received by the Community Development Department, the application will be reviewed for completeness. If the application is found to be incomplete, the Community Development Department will notify the applicant in writing within 15 business days what additional information is required, and the application will not be processed until that information is received by the Community Development Department.

(k) Certificate of Completion. Prior to final approval of the landscape installation by the City, the applicant shall submit a signed Certificate of Completion to the Community Development Department for review and approval. Once the Certificate of Completion is received by the Community Development Department, the certificate will be reviewed for completeness. If the certificate is found to be incomplete, the Community Development Department will notify the applicant in writing within 15 business days what additional information is required and the certificate will not be processed until that information is received by the Community Development Department. The Community Development Director will approve or deny the certificate. In the event that the certificate is denied, the applicant may reapply or appeal the Director's decision to the Planning Commission for consideration. The Certificate shall include the following elements:

(1) Project Information Sheet.

(2) Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package.

(3) Irrigation scheduling parameters used to set the controller. A copy of said schedule shall be included in the irrigation controller box.

(4) Landscape and irrigation maintenance schedule. A copy of said schedule shall be included in the irrigation controller box.

(5) Irrigation audit report. An audit performed by a certified landscape irrigation auditor, who is on the City's list of approved auditors for the purpose of compliance with this section. Digital and hard copies of the audit report shall be submitted.

(6) Soil analysis report and documentation verifying implementation of soil report recommendations:

(7) Photographs of each hydrozone and valve.

(l) Public Education. All model homes that are landscaped shall post signs and written information to demonstrate the principles of water efficient landscapes

described in this section. Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydro-zones, irrigation equipment and other features that contribute to the overall water conservation theme. Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes. Such information shall be posted in the sales office and at each model home and in addition each new property owner shall be given a copy of education materials that contain information on water conservation.

(in) Definitions. For the purpose of this section, unless otherwise apparent from the context, certain words and phrases used in this section are defined as follows:

"Applied water" shall mean the portion of water supplied by the irrigation system to the landscape.

"Backflow prevention device" shall mean the safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

"Conversion factor (0.62)" shall mean the number that converts the maximum applied water allowance from acre-inches per acre per year to gallons per square foot per year.

"Certificate of Completion" shall mean the document required under Section 9-3.527(l).

"Certified landscape irrigation auditor" shall mean the person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program. The City shall maintain a list of auditors approved to perform audits for the purposes outlined in this Section.

"Check valve or anti-drain valve" shall mean the 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.

"Certified irrigation designer" shall mean the person certified to design irrigation systems by an accredited academic institution a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

"Common interest developments" shall mean the community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.

"Controller" shall mean the automatic timing device used to remotely control valves to operate an irrigation system. A weather-based controller is a controller that uses evapo-transpiration or weather data to determine when to irrigate. A self-adjusting irrigation controller is a controller that uses sensor data (i.e. soil moisture sensor).

"Drip irrigation" shall mean any non-spray low volume irrigation system utilizing emission devices with a flow rate equal to or less than two (2) gallons per hour.

"Ecological restoration project" shall mean the project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Effective precipitation or usable rainfall (Eppt)" shall mean the portion of total precipitation that is used by the plants.

"Emitter" shall mean the drip irrigation emission device that delivers water slowly from the system to the soil.

"Established landscape" shall mean the point at which plants in the landscape have developed significant root growth into the site. Typically, most plants are established after one or two years of growth.

"Establishment period of the plants" shall mean the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment.

"Estimated Total Water Use (ETWU)" shall mean the total water used for the landscape as described herein: The Estimated Total Water Use shall be calculated using the equation that is found in the Water Efficient Landscape Guidelines. Estimated Total Water Use shall not exceed MAWA. The sum of the Estimated Total Water Use calculations for all hydrozones shall not exceed MAWA.

"ET adjustment factor (ETAF)" shall mean the factor of 0.7, that, when applied to reference evapotranspiration rate, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is  $(0.7) = (0.5/0.71)$  ETAF for a Special Landscape Area shall not exceed 1.0. ETAF for existing, non-rehabilitated landscapes is 0.8.

"Evapotranspiration (ET) rate" shall mean the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time. Historic ETo in San Juan Capistrano has been 48.0". Surrounding communities are listed in the table below for reference and comparison.

**Reference Evapotranspiration (ETo) Table\***

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
<b>Orange</b>													
Irvine	2.2	2.5	3.7	4.7	5.2	5.9	6.3	6.2	4.6	3.7	2.6	2.3	49.6
Laguna Beach	2.2	2.7	3.4	3.8	4.6	4.6	4.9	4.9	4.4	3.4	2.4	2.0	43.2
Santa Ana	2.2	2.7	3.7	4.5	4.6	5.4	6.2	6.1	4.7	3.7	2.5	2.0	48.2

\* The values in this table were derived from: 1) California Irrigation Management Information System (CIMIS) 2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999, 3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922 4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

"Flow rate" shall mean 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.

"Hardscapes" shall mean any durable material (pervious and non-pervious).

"Homeowner-provided landscaping" shall mean any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner.

"Hydrozone" shall mean the portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated and may be watered by one or more valves, but a valve may not control more than one hydrozone.

"Infiltration rate" shall mean the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

"Invasive plant species" shall mean the species of plants that have a tendency to colonize open spaces, riparian corridors and other sensitive habitats. Invasive species can out-compete native species and disrupt natural ecosystem processes. Invasive species may also be regulated by county agricultural agencies.

"Irrigation audit" shall mean the in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. A written document shall be included with final submission.

"Irrigation efficiency" shall mean 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 section is .71. Greater irrigation efficiency can be expected from well designed and maintained systems.

"Irrigation water use analysis" shall mean the analysis of water use data based on meter readings and billing data.

"Landscape architect" shall mean the person who holds a license to practice landscape architecture in the state of California (Government Code, Business and Professions Code, Section 5615).

"Landscape area" shall mean all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures; sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" shall mean the person licensed (with a valid C-27 license) by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape Documentation Package" shall mean the documents required per this ordinance.

"Landscape Installation Certificate of Completion" shall mean the certificate included in the Water Efficient Landscape Guidelines that must be submitted to the City pursuant to this ordinance.

"Lateral Line" shall mean the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"Local agency" shall mean the City of San Juan Capistrano.

"Local water purveyor" shall mean the entity, including a public agency, city, county or private water company that provides retail water service.

"Low volume irrigation" shall mean the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Main line" shall mean the pressurized pipeline that delivers water from the water source to the valve or outlet.

"Maximum Applied Water Allowance (MAWA)" shall mean the upper limit of annual applied water for the established landscaped area as specified in subsection C of this Section. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens; and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0. The ET factor shall not exceed 0.7.

Example MAWA calculation: a hypothetical landscape project in San Juan Capistrano, CA with an irrigated landscape area of 50,000 square feet without any Special Landscape Area (SLA= 0, no edible plants or recreational areas or use of recycled water). To calculate MAWA, the annual reference evapotranspiration value for San Juan Capistrano is 8.0 inches.

$$\text{MAWA} = (\text{ET}_0) (0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

MAWA = Maximum Applied Water Allowance (gallons)

ET<sub>0</sub> = Reference Evapotranspiration (inches)

0.62 = Conversion Factor

0.7 = ET Adjustment Factor

LA = Landscape Area (square feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (square feet)

$$\begin{aligned} \text{MAWA} &= (48.0 \text{ inches})(0.62)[0.7 \times 50,000 \text{ square feet} + 0.3 \times 0] \\ &= 1,041,600 \text{ gallons per year} \end{aligned}$$

To convert from gallons per year to hundred-cubic-feet per year:

$$= 1,041,600 / 748 = 1,393 \text{ hundred-cubic-feet per year}$$

(100 cubic feet = 748 gallons)

(2) In this next hypothetical example, the landscape project in San Juan Capistrano, CA has the same ET<sub>0</sub> value of 48.0 inches and a total landscape area of 50,000 square feet. Within the 50,000 square foot project, there is now a 2,000 square foot area planted with edible plants. This 2,000 square foot area is considered to be a Special Landscape Area.

$$\text{MAWA} = (\text{ET}_0)(0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

$$\text{MAWA} = (48.0 \text{ inches})(0.62)[0.7 \times 50,000 \text{ square feet} + 0.3 \times 2,000 \text{ square feet}]$$

$$= 29.76 \times [35,000 + 600] \text{ gallons per year}$$

$$= 29.76 \times 35,600 \text{ gallons per year}$$

=1,059,456 gallons per year or 1,416 hundred-cubic-feet per year

"Microclimate" shall mean 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.

"Mulch" shall mean any organic material such as leaves, bark, straw 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.

"New construction" shall mean the new building with a landscape or other new landscape.

"Operating pressure" shall mean the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

"Overhead sprinkler irrigation systems" shall mean those systems that deliver water through the air (e.g. spray heads and rotors).

"Overspray" shall mean the irrigation water which is delivered beyond the landscaped target area.

"Pervious" shall mean the surface or material that allows the passage of water through the material and into the underlying soil.

"Permit" shall mean the authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"Plant factor or plant water use factor" shall mean a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this section, the average plant factor of low water using plants ranges from 0 to 0.3, for average water using plants the range is 0.4 to 0.6, and for high water using plants the range is 0.7 to 1.0. For purposes of this section, the plant factor range for low water use plants is 0 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this section are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species."

"Precipitation rate" shall mean the rate of application of water measured in inches per hour.

"Project applicant" shall mean the individual or entity submitting a Landscape Documentation Package required per this ordinance, to request a permit, plan check or design review. A project applicant may be the property owner or his or her designee.

"Rain sensor or rain sensing shutoff device" shall mean the component which automatically suspends an irrigation event when it rains.

"Record drawing or as-builts" shall mean the set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

"Recreational area" shall mean the areas dedicated to active play such as parks, sports fields and golf courses where turf provides a playing surface.

"Recycled water, reclaimed water, or treated sewage effluent water" shall mean the treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration or 'ETo'" shall mean the standard measurement of environmental parameters which affect the water use of plants. ETo is given expressed in inches per day, month, or year as represented in this ordinance, and is an estimate of the evapo-transpiration of a large field of four-to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated.

"Rehabilitated landscape" shall mean any re-landscaping project that requires a permit, plan check, or design review, meets the requirements of this ordinance and where the modifications occur within 12 months and the total modified landscape area is greater than 2,500 square feet. Phasing the construction of such projects to avoid complying with this ordinance shall not be permitted.

"Runoff" shall mean the water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Soil moisture sensing device or soil moisture sensor" shall mean the device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

"Soil texture" shall mean the classification of soil based on its percentage of sand, silt, and clay.

"Special Landscape Area (SLA)" shall mean the 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.

"Sprinkler head" shall mean the device which delivers water through a nozzle.

"Static water pressure" shall mean the pipeline or municipal water supply pressure when water is not flowing.

"Station" shall mean the area served by one valve or by a set of valves that operate simultaneously.

"Swing joint" shall mean the 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.

"Turf" shall mean the ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.

"Valve" shall mean the device used to control the flow of water in the irrigation system.

"Water conserving plant species" shall mean the plant species identified as having a low plant factor.

"Water feature" shall mean the 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. Constructed wetlands used for on-site wastewater

treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

"Watering window" shall mean the time of day irrigation is allowed.

"WUCOLS" shall mean 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.

End of Code Amendment

RESOLUTION NO. 09-12-15-01

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN JUAN CAPISTRANO RECOMMENDING THAT THE CITY COUNCIL CERTIFY THE NOTICE OF EXEMPTION AND APPROVE CODE AMENDMENT (CA) 09-001 TO AMEND THE TITLE 9 OF THE LAND USE CODE SECTION 9-3.527 REGULATING LANDSCAPE STANDARDS FOR COMPLIANCE WITH AB 1881 WATER EFFICIENT LANDSCAPE.

**WHEREAS**, the San Juan Capistrano Municipal Code Section 9-3.527 regulates landscape standards to include but not limited to use of low water use landscape, water conservation, irrigation design, stormwater management; and,

**WHEREAS**, the Governor signed the Water Conservation in Landscape Act of 2006, Assembly Bill 1881, on September 28, 2006 and requires that Cities are required to adopt a Water Efficiency Landscape Ordinance no later than January 1, 2010; and,

**WHEREAS**, the landscape code regulations set forth applicable standards for:

1. Quality and sustainability of landscaping and irrigation systems related to urban runoff;
2. Water use efficiency and landscape health and diversity;
3. Ensuring that the City continues to protect the natural environment and watershed;
4. Providing clean air and water;
5. Preventing erosion and offer fire protection while maintaining aesthetics and community character; and,

**WHEREAS**, the landscape code sets standards, provisions and procedures that will ensure that the City will:

1. Protect and preserve water resources within the community in accordance with the Conservation and Open Space Element of the City General Plan;
2. Comply with State-mandated water-efficient landscape standards which require cities to adopt water efficient landscape standards;
3. Ensure protection of water resources from excessive use of water in commercial, industrial, public, and residential development;
4. Achieve visually pleasing landscape environments with the use of native trees and plants;
5. Establish review procedures to evaluate reports, plans, and landscape information pertaining to existing and proposed development projects;
6. Provide landscape design standards which achieve water conservation while also contributing to an aesthetically enriched community landscape;
7. Establish a structure for planning, designing, installing, and maintaining and managing water efficient landscapes in existing and new construction and rehabilitated projects;
8. Comply with Assembly Bill 1881 and all requirements set forth in City, State and Federal Law, including those portions of the California Plumbing Code applicable to irrigation systems; and,



**WHEREAS**, On October 27, 2009 the Planning Commission conducted a work session to review and comment on the draft code amendment; and,

**WHEREAS**, On November 24, 2009 the Utilities Commission conducted a public meeting to discuss the code amendment; and,

**WHEREAS**, On November 24, 2009 the Planning Commission conducted a duly noticed public hearing to consider the code amendment; and,

**WHEREAS**, On December 15, 2009 the City Council of the City of San Juan Capistrano conducted a duly noticed public hearing to consider the code amendment; and,

**WHEREAS**, the code amendment has been reviewed in accordance with the California Environmental Quality Act and the Environmental Administrator has determined that the project is exempt per section 15307, Class 7, Actions by regulatory Agencies for Protection of Natural Resources because the ordinance will conserve water, a natural resource, and the action of adopting the ordinance otherwise fits the exemption's requirements; and,

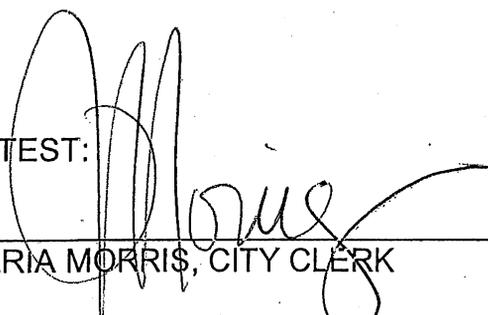
**NOW, THEREFORE, BE IT RESOLVED THAT THE FOLLOWING FINDINGS HAVE BEEN MADE BY THE CITY COUNCIL:**

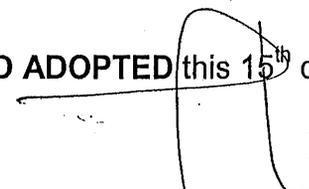
- 1) The proposed Land Use Code amendment (CA) 09-001 conforms with the goals and policies of the General Plan; and,
- 2) The proposed Land Use Code amendment is necessary to implement the General Plan and to provide for public safety, convenience, and/or general welfare; and,
- 3) The proposed Land Use Code amendment conforms with the intent of the Development Code and is consistent with other applicable related provisions thereof; and,
- 4) The proposed Land Use Code amendment is reasonable and beneficial at this time.

**NOW, THEREFORE, BE IT FURTHER RESOLVED**, that the City Council certifies the Notice of Exemption (Exhibit A) and approves Code Amendment (CA) 09-001 to amend the San Juan Capistrano Municipal Code Section 9-3.527 regulating landscape standards.

**PASSED, APPROVED AND ADOPTED** this 15<sup>th</sup> day of December, 2009.

ATTEST:

  
\_\_\_\_\_  
MARIA MORRIS, CITY CLERK

  
\_\_\_\_\_  
DR. LONDRES USO, MAYOR



STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) ss.  
CITY OF SAN JUAN CAPISTRANO )

I, MARIA MORRIS, appointed City Clerk of the City of San Juan Capistrano, do hereby certify that the foregoing **Resolution No. 09-12-15-01** was duly adopted by the City Council of the City of San Juan Capistrano at a Regular meeting thereof, held the 15<sup>th</sup> day of December 2009, by the following vote:

AYES: COUNCIL MEMBERS: Allevato, Hribar, Nielsen, Freese and Mayor Uso  
NOES: COUNCIL MEMBER: None  
ABSENT: COUNCIL MEMBER: None

  
\_\_\_\_\_  
MARIA MORRIS, City Clerk





**NOTICE OF EXEMPTION**  
 City of San Juan Capistrano, California

Post Date:  
 Post Removal: (30 days)

1. **APPLICANT:** City of San Juan Capistrano  
 32400 Paseo Adelanto  
 San Juan Capistrano, CA 92675
2. **LEAD AGENCY:** City of San Juan Capistrano  
 32400 Paseo Adelanto  
 San Juan Capistrano, CA 92675
3. **PROJECT MGR.:** David Contreras, Senior Planner, (949) 443-6320
4. **PROJECT TITLE:** Code Amendment (CA) 09-001: Landscape Standards (Water Efficient Landscape)
5. **DESCRIPTION:** An amendment to the City's Land Use Code to amend SJCMC Title 9, Section 9-3.527 regulating landscape standards for compliance with AB 1881 Water Efficient Landscape.

**ADMINISTRATIVE DETERMINATION:** Community Development Department staff have completed a preliminary review of this code amendment in accordance with the City of San Juan Capistrano's Environmental Review Guidelines and with Section 15061 of the California Environmental Quality Act (CEQA) Guidelines. Based on that review, the Environmental Administrator finds that the proposed code amendment is exempt per Section 15307, Class 7, Actions by regulatory Agencies for Protection of Natural Resources because the ordinance will conserve water, a natural resource, and the action of adopting the ordinance otherwise fits the exemption's requirements. Therefore, the Environmental Administrator has determined that further environmental evaluation is not required because:

- "The activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA" (Section 15061(b)(3)); or,*
- The project is statutorily exempt, Section \_\_\_\_\_, <name> (Sections 15260-15277); or,
- The project is categorically exempt, Class 15307, Actions by regulatory Agencies for Protection of Natural Resources (Sections 15301-15329); or,
- The project does not constitute a "project" as defined by CEQA (Section 15378).

David Contreras  
 David Contreras, Senior Planner

12.8.09  
 Date

cc:  Project File  CEQA file  County Clerk

