

ORDINANCE NO. 1618

AN ORDINANCE AMENDING ARTICLE XXIII OF CHAPTER 29 OF THE DAVIS MUNICIPAL CODE RELATING TO WATER CONSERVATION STANDARDS FOR NEW CONSTRUCTION LANDSCAPING

WHEREAS, The City of Davis depends solely on local groundwater whose availability depends on adequate rainfall;

WHEREAS, the City is experiencing a decreasing groundwater basin level due to increased demand on a limited supply, and the local groundwater supply must be protected through conservation;

WHEREAS, the City must comply with Assembly Bill 325 which requires all cities and counties in California to adopt local landscape water conservation ordinance as of January 31, 1993;

WHEREAS, the proposed ordinance amendment is in conformance with the General Plan goals and policies relating to water conservation;

WHEREAS, the public necessity, convenience and general welfare call for the adoption of the proposed amendment.

NOW, THEREFORE, THE COUNCIL OF THE CITY OF DAVIS DOES ORDAIN AS FOLLOWS:

SECTION 1. Section 29-179.5 of Chapter 29 of the Davis Municipal Code is hereby amended by addition thereto of the following;

Water Conservation Standards for New Construction. The standards contained herein will apply City-wide.

SECTION 2. The purpose and conditions of the Water Conservation Standards for New Construction are as follows:

Section 29-179.5.1 Definitions For the purposes of this chapter, the following words and phrases shall have the meaning respectively ascribed to them by this section.

Automatic Irrigation Controller. A mechanical or solid state timer, capable of operating irrigation valve circuits to set the days and length of time water is applied to landscape areas.

Certified Water Auditor. An individual who has completed a water audit training course provided by the California Department of Water Resources, Irrigation Associated, or City recognized certification program.

Check Valve. A valve located under a sprinkler head to hold water in the system to prevent drainage out of the lower elevation sprinkler heads.

Common Area Landscaping. All landscaped areas either owned or maintained in common by residents living adjacent to and benefiting from the area, or owned and maintained by the owner of landscaped area other than those on single family parcels.

Cool Season Turfgrass. Those common turfgrass species which have higher water requirements as determined by University of California Cooperative Extension, Leaflet 21432.

Irrigation Valve Circuit. A device used to control the flow of water through one valve that operates or controls one or more sprinkler heads or other devices that apply water to landscaped areas.

Landscaped Area. The total parcel area of the project less building pad; driveway, parking and any other impermeable surface areas, including median and parkway areas.

Median Turf Area. Any area planted with turfgrass located between streets, roads or highways.

Parkway Turf Area. Any area planted with turfgrass located between curb and sidewalk.

Reclaimed Water. Water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or controlled use other than human consumption that would not otherwise occur.

Residential Model Home Landscaping. The associated landscaping for those dwelling units in new residential developments used as model homes for the purposes of promoting and/or selling dwelling units.

Warm Season Turfgrass. Those common turfgrass species which have lower water requirements as determined by University of California Cooperative Extension, Leaflet 21432.

Sec. 29-179.5.2 Purpose.

This chapter is hereby adopted to promote efficient landscape water use in new projects using proper landscape design, installation and maintenance practices. Both mandatory and optional elements of the section are included to encourage design creativity and allow flexibility for different types of projects to comply with the conditions in Sec. 29-179.5.4.

Sec. 29-179.5.3 Applicability.

This chapter shall apply to all new public and private construction, including developer installed landscaping for model homes and single family lots. This chapter shall not apply to single family residential landscaping, including duplexes, triplexes and quadplexes, except as required by the development review process.

Sec. 29-179.5.4. Compliance.

- (1) All new landscaping areas to which this chapter shall apply pursuant to Sec. 29-179.5.3 shall comply with all of the following landscape design and construction requirements:
 - (A) Turfgrass shall not be planted on slopes greater than 15 percent.
 - (B) Sprinklers on slopes greater than 15 percent shall apply a maximum of 0.5 inches per hour of runtime per manufacturer specifications.

- (C) Turfgrass shall be prohibited in median areas.
 - (D) Turfgrass shall be prohibited in parkway areas less than eight (8) feet wide.
 - (E) Sprinkler application rates shall be similar within each irrigation valve circuit.
 - (F) Irrigation valve circuits shall be separated by slope, orientation, and plants with similar water requirements.
 - (G) Sprinkler head spacing within an irrigation valve circuit watering turfgrass shall provide head-to-head coverage or optimal spacing per manufacturer specifications.
 - (H) A check valve shall be placed on the lowest points of the irrigation system to prevent off-site system drainage.
 - (I) Landscaped areas planted with only trees and/or shrubs that are not also planted with turfgrass or groundcovers shall be mulched on the soil surface to a minimum depth of two (2) inches.
 - (J) If automatic irrigation controllers are installed, they shall provide multiple programming and a minimum of three (3) repeat cycles per day capability.
 - (K) A Water Audit shall be conducted by a Certified Water Auditor as part of construction of landscape improvements.
- (2) All new landscaped areas to which this chapter shall apply pursuant to Section 29-179.5.3 shall also comply with a minimum of three (3) of the following conditions on any given project:
- (A) An on-site soil test shall be conducted by a licensed soil testing laboratory to determine soil amendment and/or replacement requirements.
 - (B) A maximum of 25 percent of the total landscaped area shall be planted in cool season turfgrass or 35 percent in warm season turfgrass, respectively.
 - (C) Irrigation systems shall be installed that individually water areas planted with only trees and/or shrubs.
 - (D) Alternative water systems for reclaimed water or other appropriate water sources, as allowed by the City and County Health Department, with dual or necessary plumbing have been included as part of the project design.
 - (E) Sloped turf areas adjacent to paved or impermeable surface materials (e.g. walkways, driveways, parking lots) shall be leveled off to create a flat area at least three (3) feet wide between the slope toe and hardscape surface.
 - (F) Topsoil shall be stockpiled and replaced on the project site.
 - (G) At least 25 percent of the landscape surface shall not receive sprinkler irrigation.

- (H) At least 90 percent of the plant materials selected in non-turf areas shall be well suited to the climate of the region, as suggested by the Sunset Western Garden Book or equivalent publication., and require minimal water once established. The remaining non-turf plants which are a non-drought tolerant variety, shall be grouped together and shall be irrigated separately.
- (3) A Water Audit shall be conducted by a Certified Water Auditor on all new landscapes in accordance with the policy documents associated with this chapter. The policy documents are incorporated herein by reference (Landscape Ordinance Process, Mandatory Measures, Optional Measures, and Water Audit Measures):
 - (A) All sprinkler irrigation valve circuits shall be inspected per “System Check Requirements” regardless of project size.
 - (B) Sprinkler irrigation valve circuits shall have a “Catch Can Device Test” conducted as follows:
 1. If the total landscaped area is 5,000 square feet or less, all sprinkler irrigation valve circuits shall be tested.
 2. If the total landscaped area exceeds 5,000 square feet, one of every four turfgrass irrigation valve circuits shall be tested along with one major non-turf area.
 - (C) An additional Water Audit shall be conducted during the second year after initial installation of all project landscape improvements, except individually owned and maintained single family residential landscaping that was installed by the project developer prior to the sale of the property.

Sec. 29-179.5.5 Variances.

The purpose of a variance is to allow variation from the strict application of the requirements of this chapter whereby reason of the unusual shape or other extraordinary situation or condition of such piece of property, or of the use or the development of property immediately adjoining the property in question, the literal enforcement of the requirements of this chapter would involve practical difficulties or would cause undue hardship unnecessary to carry out the spirit of this chapter.

- (1) Applicability. This chapter is only applicable to new landscaping as defined in Sec. 29-179.5.1.
- (2) Application Fees. Application for a variance shall be made by the property owner or zoning administrator on a form prescribed by the city and shall be accompanied by a fee as prescribed the city resolution adopted pursuant to Sec. 29-12.1, no part of which shall be refundable; provided, that if the application for variance is made at the request of the city solely to preserve trees which are situated on the property which is the subject of the variance, then there shall be no fee.
- (3) Maps and Drawings Required. Maps and drawings required to demonstrate that the conditions set forth in this section apply to subject property, together with precise and accurate legal descriptions and scale drawings of property and existing buildings and other data required, shall be submitted with the application for a variance.
- (4) Public Hearing and Notice. When a public hearing is scheduled, written notice shall be mailed to the property owners within 300 feet of the subject site not less than ten calendar days prior to the date of the

hearing. The notice shall state substantially the following, pursuant to California Government Code section 65009, as amended.

If you challenge in court the action taken on the variance application, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the community development director at, or prior to, the public hearing.

Failure of owners to receive notice of the hearing shall in no way affect the validity of any action.

- (5) Grounds for Granting. The Planning Commission or Design Review Commission may grant a variance only when the following conditions are found as contained herein:
 - (A) That any variance granted shall be subject to such conditions as will assure that the adjustment thereby authorized shall not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zone in which the subject property is located.
 - (B) That because of special circumstances applicable to subject property, the strict application of this chapter is found to deprive subject property of privileges enjoyed by other properties in the vicinity and in the same zoning district.
 - (C) That the authorizing of such variance will not be of substantial detriment to adjacent property, and will not materially impair the purposed of this chapter or the public interest.
 - (D) That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not so general or recurrent in nature as to make reasonable or practicable the formulation of a general regulation for such conditions or situations.
- (6) Approval. The Planning Commission or Design Review Commission shall act upon any application within sixty days, and may approved the variance or may approve the variance subject to specified conditions. The applicant requesting the variance shall be notified in writing forthwith of any action taken.
- (7) Term Transferable. Unless specified otherwise at the time a variance is approved., the variance applies to subject property for an indefinite time and is transferable to any future owner of the subject property.
- (8) Appeals to Planning Commission. Any determination of the Design Review Commission with respect to variances may be appealed to the Planning Commission upon written request for a hearing before the Planning Commission. Decisions of the Planning Commission with respect to variances may be appealed to the City Council upon written request. In the absence of such request being filed within fifteen days after the determination of the Design Review Commission or Planning Commission, such determination is final.
- (9) Effect of Denial. In case an application for a variance from the requirements of this chapter is denied, such application shall not be eligible for reconsideration. A new application affecting or including all or part of the same property shall, in the opinion of the Planning Commission or Design Review Commission, be substantially different from the application denied to be eligible for consideration.
- (10) Enforcement.

- (A) The developer or landscaper shall request an inspection from the Community Development Department within 30 days of when landscaping has been installed, and all necessary design, installation and water audit procedures have been completed by the applicant. Failure to comply with this chapter shall result in delay of issuance of a Final Certificate of Occupancy.
- (B) All departments, officials and public employees of the city vested with the duty or authority to issue permits shall conform to the provisions of this chapter and shall issue no permit, certificate or license for uses, buildings or purposes not contained in this chapter. Any such permit, certificate or license issued in conflict with the provisions of this chapter intentionally or otherwise, shall be null and void. It shall be the duty of the Building Inspector of the city to enforce the provisions of this chapter.

Section 3. Environmental Review. Negative Declaration #8-90 incorporating by reference EIR #2-87 addressing the environmental impacts of the General Plan, EIR #2-86 addressing the environmental impacts of the South Davis Specific Plan, and EIR #3-87 addressing the environmental impacts of the East Davis Specific Plan adequately address potential environmental effects and found that said amendment will not result in any significant adverse impact to the environment.

Section 4. Effective Date.. This ordinance shall become effective retroactive to the date of adoption and shall apply to all developments which do not have City approved Landscape Plans as of August 1, 1991.

City of Davis

Landscape Water Conservation Ordinance Process

Applicant _____

Project Address _____

Applicability

This Ordinance applies to all new public and private construction, including model homes and lots still owned by the developer at time of occupancy; EXCEPT, single family residential landscaping privately installed and maintained by the individual owner. Developer installed single family landscaping must also comply with the Ordinance.

Design Review Approval Process

The Landscape Water Conservation Ordinance requirements are only indirectly specified in the Design Review approval process through the inclusion of a standard condition of approval. All staff report recommendations to the Design Review Commission for project approval will include the following standard condition of approval.

“The project shall comply with Landscape Water Conservation Ordinance, Section 29-179.5, of the City of Davis Municipal Code. Verification of compliance with this Ordinance shall occur prior to the issuance of the Final Certificate of Occupancy.”

Except for the City initiated action described above for this Ordinance, the Design Review approval process for Landscape and Irrigation plans will remain the same. During the Design Review approval process, the applicant submitting Landscape and/or Irrigation plans with the Design Review application, will have no additional duties beyond what is currently required in Article XXVIII, Section 29-231 of the Zoning Code.

Building Permit Approval Process

Step 1. The Building Department requires five (5) sets of construction plans. Each set of plans shall contain a separate page with a “sticky back”, i.e. a drafting appliqué film Xerox, of the three Check Lists. This represents the “sign-off” page of the construction plans and compliance with the Ordinance.

Step 2. During the period of time between the issuance of a Building permit and the applicant’s request for the Planning Department’s Landscape/Irrigation site inspection, all Check Lists shall be initialed and signed by the responsible party upon compliance with Ordinance requirements.

Step 3. Upon verification that the project complies with this Ordinance, the Planning Department initials and dates the Check List #1 (Mandatory Measures), notifies the Building Department to issue the Final Certificate of Occupancy and transmits the “sign-off” page of the construction plans to the Public Works Department.

Upon Completion of all landscape improvements and necessary requirements under this Ordinance, staff shall conduct a Landscape/Irrigation site inspection to verify that the project landscaping meets all requirements of the Landscape Water Conservation Ordinance as indicated on the signed and initialed construction plans.

Responsibilities:

Developer/Applicant – to commission a project that complies with the Landscape Water Conservation Ordinance.

Landscape Architect/Designer – to design Landscape and Irrigation plans that comply with the Ordinance.

Landscape Contractor/Installer – to install the landscape improvements in accordance with the Ordinance.

Certified Water Auditor – commissioned by either the Landscape Designer or Landscape Installer to conduct water audit.

Compliance Procedure

Compliance with the Landscape Water Conservation Ordinance consists of providing a “sign-off” page as part of the construction plans and completing Check Lists 1 (Mandatory Measures), 2 (Optional Measures), and 3 (Water Audit Measures) during the Building Permit approval process. All Ordinance requirements, including the completion of the Check Lists, will be verified by the Planning Department during their final site inspection conducted prior to the issuance of a Final Certificate of Occupancy.

INTRODUCED on September 4, 1991, and PASSED AND ADOPTED by the City Council of the City of Davis on this 18th day September 1991 by the following roll call vote:

AYES: ADLER, BOYD, ROSENBERG, WOLK, SKINNER

NOES: NONE

ABSENT: NONE

MAYNARD SKINNER
Mayor

ATTEST:

JOHN MEYER
City Manager/City Clerk

OPTIONAL MEASURES

(CHECK LIST #2)

City of Davis Landscape Water Conservation Ordinance

Optional Measures – Must comply with at least 3 of the following (circle items complied with):

- (1) An on-site soil test was conducted by a licensed soil testing laboratory to determine soil amendment and/or replacement requirements.
- (2) A maximum of 25 percent of the total landscaped area is planted in coolseason grass turfgrass or 35 percent in warmseason turfgrass, respectively.
- (3) Irrigation systems are installed that individually water areas planted with only trees and/or shrubs.
- (4) Alternative water systems for reclaimed water or other appropriate water sources with dual or necessary plumbing have been included as part of the project design.
- (5) Sloped turf areas adjacent to hardscape (e.g. walkways, sidewalks, driveways, parking lots) are leveled off to create a flat at least 3 feet wide between the slope toe and hardscape surface.
- (6) Top soil has been stockpiled and replaced on the project site.
- (7) At least 25 percent of the landscape surface does not receive sprinkler irrigation.
- (8) At least 90 percent of the plant materials selected in non-turf areas are well suited to the climate of the region, as suggested by the Sunset Western Garden Book or equivalent publication, and requires minimal water once established. Up to 10 percent of the non-turf plants are a non-drought tolerant variety, are grouped together, and can be irrigated separately.

Landscape Installation Completed ___/___/___

Water Audit Completed ___/___/___

Comments _____

I certify compliance with the Landscaped Water Conservation Ordinance for this project. Licensed

Landscape Architect/Designer (Print) (Signature) Date ___/___/___ Y N

Landscape Contractor/Installer (Print) (Signature) Date ___/___/___ Y N

Developer/Applicant (Print) (Signature) Date ___/___/___ Y N

**Mandatory Measures
(CHECK LIST #1)
City of Davis Landscape Water Conservation Ordinance**

Project Address _____

Parcel Size _____ (square feet) Landscaped Area _____ (square feet)

Project Type (check appropriate boxes)

- | | | |
|--|--|--|
| <input type="checkbox"/> Multifamily | <input type="checkbox"/> Residential Common Area | <input type="checkbox"/> Model Home(s) |
| <input type="checkbox"/> Commercial
or Industrial | <input type="checkbox"/> Public Facility | <input type="checkbox"/> Other _____ |

Mandatory Measures – Required For Ordinance Compliance (Initial below):

Designer	Installer	City	
		/	Turfgrass shall not be planted on slopes greater than 15 percent.
		/	Sprinklers on slopes greater than 15 percent shall apply a maximum of 0.5 inches per hour of runtime per manufacturer specifications.
		/	Turfgrass shall be prohibited in median areas.
		/	Turfgrass shall be prohibited in parkway areas less than eight (8) feet wide.
		/	Sprinkler application rates shall be similar within each irrigation valve circuit.
		/	Irrigation valve circuits shall be separated by slope, orientation, and similar plant water requirements.
		/	Sprinkler head spacing within a valve circuit irrigating turfgrass shall provide head-to-head coverage or optimal space per manufacturer specifications.
		/	A check valve shall be placed on the lowest points of the irrigation system to prevent system drainage.
		/	Areas planted with only trees and/or shrubs shall be mulched on the soil surface to a minimum depth of two (2) inches.
		/	If automatic irrigation controllers are installed, they must provide multiple programming and a minimum of three (3) repeat cycle per day capability.
		/	A water audit shall be conducted as part of construction of landscape improvements.

**Water Audit Measures
(CHECK LIST #3)
City of Davis Landscape Water Conservation Ordinance**

Certified Water Auditor _____ Date Audited ____/____/____

Project Address _____
Landscaped Area (Square Feet) _____

System Check Requirements (all irrigation valve circuits):

<u>Initial</u>	
	High or low system pressure did not distort sprinkler distribution patterns.
	Missing or mis-aligned sprinklers were adjusted to not apply water to unlandscaped areas or cause off-site runoff.
	Sprinklers that were not vertical or sunken below grade have been adjusted and do not distort sprinkler distribution patterns.
	Sprinklers on irrigation valve circuit watering turfgrass areas provide head-to-head coverage.
	Irrigation controllers have been checked for proper operation and accurate scheduling capability.

Catch Can Device Test (# irrigation valve circuits based on project size)

<u>Initial</u>	
	The catch can test which determines the average application rate for each valve has been completed in accordance with the water audit program procedures (e.g. # of catch can devices used, actual test runtime, and method for calculating the application rate for tested valves/stations). All irrigation valve circuits provide a minimum distribution uniformity of 0.6.

Water Audit Requirements – Less than 5,000 square feet of landscaped area

<u>Initial</u>	
	All irrigation valve circuits shall be tested per <u>System Check Requirements</u> stated above.
	All sprinkler irrigation valve circuits have been tested per <u>Catch Can Device Test</u> criteria.
	Irrigation schedules have been generated based on the catch can test information, and similar valves linked for scheduling purposes.

Water Audit Requirements – More than 5,000 square feet of landscaped area

<u>Initial</u>	
	All irrigation valve circuits have been tested per <u>System Check Requirements</u> stated above.
	At least 25 percent of all irrigation valve circuits watering turfgrass areas and one major non-turf planted area irrigated with sprinklers have been tested per <u>Catch Can Device Test</u> criteria.
	Irrigation schedules have been generated based on the catch can test information, and similar valves linked for scheduling purposes.

I hereby certify that a water audit was conducted at the project site in compliance with the Landscaped Water Conservation Ordinance. A copy of my water auditor certification is attached or copied on the reverse.

Water Auditor (Print) (Signature) Date ____/____/____

Please return the construction plans and your completed water audit check list to the Landscape Designer or Landscape installer who authorized the water audit for this project. Send a copy of the water audit results to: City of Davis Public Works, 23 Russell Blvd, Davis, CA 95616, Attn: Water Conservation Specialist.