

ARTICLE 1

REGULATIONS FOR EFFICIENT WATER USE ON LANDSCAPES

Section 1. Purpose.

The purpose of this Resolution is to set forth and require all new, retrofitted, or modified landscaping to adhere to landscaping practices guided by the latest low water use technology that emphasizes water-use efficiency to maximize the benefit of existing water supplies for the citizens of, visitors to, and the economic well-being of the Big Bear Valley. These measures will significantly reduce wasteful and inefficient consumption of water, and thus make these water resources available for human consumption, sanitation, and fire protection.

Section 2.A. Application.

These Regulations shall apply to all DWP customers, including customers who may also take ground water from private wells not owned or operated by the DWP.

Section 2.B. Exception.

Some or all of the guidelines and prohibitions contained in these Regulations may not apply to specific, publicly owned properties such as schools and parks, which will be evaluated on a case-by-case basis.

Section 3. Goals and Objectives.

Due to the increasing demand for water by DWP customers for landscaping, and the finite nature of the Big Bear Valley's water resources, the general welfare of the community is best served by using the available water supply efficiently for maximum beneficial uses. Wasteful, inefficient, and unreasonable uses of water must be prevented.

Therefore, the DWP hereby declares and establishes the following goals and objectives pertaining to the use of water provided by DWP for landscaping.

A. Goals

1. Efficient use and distribution of water used for landscaping and irrigation.
2. Conservation of limited water resources.
3. Appropriate planning to eliminate all wasteful and inefficient uses of water from all landscape plans during the planning stage.
4. Provide reasonable and appropriate size and water-use limitations for all landscape features.

B. Objectives

1. To conserve the available water supply.
2. To achieve an overall, per capita reduction in water use.
3. To eliminate inefficient irrigation.
4. To reduce the volume of water waste.
5. To ensure an adequate supply of water to meet the reasonable needs of all users of DWP water.
6. To increase the use and installation of water-conserving plants, landscapes, mountainscapes, and Xeriscapes.
7. To require all new developments and encourage existing developments to install low water-use landscape elements and erosion control devices that encourage groundwater recharge.

Section 4. DEFINITIONS.

The following words and phrases, whenever used in this article, shall be construed as defined in this section, unless otherwise specified within individual sections of this article.

Adequate and sufficient water supply. A water supply that is sufficient to meet all reasonable needs of the community for the foreseeable future.

Agricultural well. Any water well used to supply water specifically for irrigation or other agricultural purposes.

All DWP customers (City and County). All persons, residences, businesses, and entities who receive and/or use water provided by DWP.

Aquifer. A permeable geologic unit that can transmit significant quantities of water under ordinary hydraulic gradients.

Board. DWP Board of Commissioners.

CCF. CCF = 100 cubic feet = 748 gallons.

Drought. A series of years where precipitation is below average.

Dry Well. A pit dug into the ground near a source of excess storm runoff designed to promote percolation. Typically 3-5 feet deep and filled with gravel.

Emitter. Any irrigation nozzle that is used to distribute water to landscape vegetation.

Environmental sensing device. Any device that uses or recognizes weather or soil moisture to modify irrigation schedules. Typical examples are Evapotranspiration irrigation controllers, soil moisture sensors, and rainfall shut-off devices.

Erosion. The process of moving soil by any agent of weather, typically rainfall runoff.

Erosion control. Anything that inhibits erosion.

Existing developments. Developments for which certificates of occupancy have been granted.

Finite. Limited in quantity.

Fire protection. Water needed to protect humans and their property from an active fire.

Greatest public benefit. Anything that is most beneficial, in the long-run, to the majority of the community.

Ground water. Any water that comes from springs or wells.

Hardscape. A landscape feature that contains no vegetation. Examples include walkways, decks, graveled areas, areas covered with mulches, etc.

His. A collective term independent of gender and may refer to male or female.

Human consumption. Water directly consumed by humans and their pets or livestock.

Individual domestic well. Any water well used to supply water for the domestic needs of an individual residence or systems of four or fewer service connections.

Inefficient. Using water in a quantity in excess of the amount required, as determined by the DWP, to accomplish a given task.

Inefficient irrigation. The process of providing more water to landscape plants or elements than is required for healthy, normal growth and appearance.

Irrigation. The process of providing supplemental water, provided by the DWP, to landscape plants and elements.

Landscape. All portions of a property that are not covered by the foundations of buildings or other structures.

Landscape element. Any and all unique features of a landscape.

Landscaping. The process of adding or subtracting vegetation or non-vegetative materials or their support structures (irrigation systems, walkways, retaining walls, etc.) to a landscape.

Limited. A substance without endless supply.

Low flow. Any water fixture that meets or exceeds current low flow standards for that item.

Maximize the benefit. To obtain the greatest feasible benefit.

Mountainscape. Any low water-use landscape that is compatible with the climate of the Big Bear Valley.

Native plant. A plant indigenous to the San Bernardino Mountains; specifically, indigenous plants that require little or no irrigation to survive.

New developments. Developments that are under construction or will be constructed in the near future, and for which certificates of occupancy have not been granted.

Per capita. On average for each member of the community whose numbers may change over time.

Percolation. Movement of water, by the forces of gravity, through soils and bedrock to a point of greater depth than its previous location.

Perennial yield. The maximum quantity of water available on an annual basis for the foreseeable future. This quantity depends on the amount of water economically, legally, and politically available to the organization(s) managing the ground water basin.

Periodic drought. Droughts that occur at regular or irregular intervals.

Practical and reasonable. An activity that achieves a desired goal and can be performed by an average person.

Precipitation. Water, in all its forms, that falls from clouds onto the surface of the earth.

Rain shut-off sensor. Any mechanism that detects precipitation and transmits the information to an irrigation controller.

Recharge. The process of adding water to an aquifer.

Recycle. To use for the same purpose multiple times.

Retrofit. Any change to an existing element.

Reuse. To use more than once; typically, multiple times.

Sanitation. Cleanliness or the disposal of unhealthful waste.

Technical Review Team (TRT). A team of, at minimum, five individuals that will be comprised of Board Members, DWP management staff, and one hydrogeologist or engineering consultant. Additional individuals may be added to the TRT when any circumstance arises requiring specialized or additional expertise.

Turf. Synonymous with lawn, grass, etc.

Wasteful. Using water in a quantity in excess of the amount needed to accomplish a given task.

Water conservation plan. A plan developed for any property that provides recommendations for conserving water based on how the home or business occupying the property used water in the past.

Water conserving landscapes. Landscapes that require little water to remain in good condition.

Water conserving plants. Plants that require little water to remain in good condition.

Water conservation. Practices or activities which result in the use of water efficiently and in quantities considered less than average.

Water features. Any landscape feature that utilizes standing or moving water as a main component. Standard examples are ponds, streams, and fountains.

Water loss. The unaccounted-for disappearance of water.

Water resources. The retrievable and usable supply of water.

Water shortage emergency. An emergency that is caused by extended periods of below average precipitation (i.e. drought).

Water usage. The act of using water provided by the DWP water system.

Water-use efficiency. The use of water in a way that minimizes waste (i.e. use beyond which is needed to accomplish a task).

Winterize. Turning off the water service and draining the on-site pipes or plumbing to prevent damage to the system during the winter months due to freezing.

Xeriscape. A landscape that requires relatively little water to install and maintain. Qualifying landscapes include those that range from highly vegetated to completely lacking in vegetation.

Section 5. Water-Use Policies and Requirements.

- A. Customers shall be encouraged to use native and water-conserving plants for landscaping.
- B. Customers shall be required to minimize the use of turf at all new and retrofitted commercial and residential landscapes.

- C. Water conservation, emphasizing water use efficiency, will be required as set forth herein.
- D. The DWP shall require and promote development of water conservation plans for all customers whose water use exceeds reasonable guidelines developed by the DWP.
- E. The DWP shall require repair of all leaks, once they are detected.
- F. All outdoor irrigation systems shall be shut off and winterized between November 1st and April 1st annually.
- G. The DWP will establish reasonable water use and irrigation standards for all residential and commercial customers in its service area.

Section 5.A. Definition of "essential" water use.

The term **essential** water-use is defined as water necessary for human consumption, sanitation, and fire protection. All other uses of water, not specifically required to meet these needs, shall be considered **nonessential**.

Section 5.B. The following uses of water are, hereafter, considered **nonessential** to human consumption, sanitation, and fire protection; and, if allowed, would constitute wastage of water and are hereby prohibited, pursuant to Water Code Section 350 et. seq., Water Code Section 71640 et. seq., and the common law:

DEFINITIONS OF NONESSENTIAL WATER USES

Washing of sidewalks, driveways, porches, patios, buildings, structures, etc.
Water to clean, fill, or operate decorative water features.
Leaks.
Irrigation between 9 a.m. and 6 p.m.
Washing vehicles without a bucket and shut-off valve.
Fire hydrant water for other than fire protection.
Flooding of gutters, driveways, and streets.
This list includes the most common nonessential water uses, but is not all inclusive.

1. There shall be no washing using water from a hose of sidewalks, walkways, driveways, parking areas, patios, porches, or verandas, buildings, and structures, except when needed to protect public health and safety.
2. No water shall be used to clean, fill, operate, or maintain levels in decorative fountains unless such water is part of a recycling system.
3. No person shall permit water to leak from any facility on his premises, and all leaks shall be repaired in a timely manner.

4. Commencing April 1st, and terminating November 1st, annually, there shall be no irrigation between the hours of 9 a.m. and 6 p.m. Irrigation shall not exceed the needs of the plants being watered or be applied at a rate and quantity that causes runoff.
5. Noncommercial washing of privately owned vehicles, trailers, buses, or boats must be conducted through the use of a bucket and a hose equipped with a shut-off nozzle.
6. There shall be no use of water from a fire hydrant, except for fire protection purposes.
7. There shall be no flooding or run-off in gutters, driveways, or streets.
8. The preceding list, contained in Section 5.B. will not be considered all-inclusive, but simply a guide for the most common forms of nonessential water use.

Section 6. Guidelines for Turf installations

- A. Turf installations may not exceed 500 square feet in size.
- B. All new and retrofitted landscapes with turf must be irrigated, using a sprinkler system with an automatic irrigation controller, that has the capability to accommodate all time and date irrigation restrictions employed by the DWP.

Section 7. Guidelines for Installing Water Features

- A. The size of all water features (ponds, fountains, streams, etc.) combined will be limited to 500 square feet of total surface area.
- B. Additionally, moving water (fountains, streams, etc.) must be operated by using a recirculating pump.

Section 8. Determination of When Landscape Plans Must Be Submitted

- A. **New Installations.** Landscape plans must be submitted for review and approval by a DWP representative whenever the proposed landscape exceeds 1,000 square feet or when any turf is proposed to be installed.
- B. **Retrofitting or Altering an Existing Landscape.** Landscape plans must be submitted for review and approval by a DWP representative whenever the combination of the existing landscape and the proposed additional or retrofitted landscape exceeds 1,000 square feet.
- C. **Plan Review and Approval.** All landscape plans must be submitted to the DWP for review and approval at least thirty (30) days prior to the estimated start of installation.

Section 9. Guidelines for New Landscapes

- A. Turf installations will not exceed 500 square feet in size.
- B. Landscape plants must be grouped by similar irrigation requirements and irrigation systems must be set up to irrigate individual water-use zones in accordance with their individual needs.
- C. Turf and water features combined, may not occupy more than 25 percent of the landscaped area in all proposed landscapes.
- D. All slope and soil conditions, that may cause excessive runoff, must be identified and clearly resolved during the planning and installation process.
- E. Landscape elements must be appropriately maintained to maximize water-use efficiency.
 - 1) All sprinkler, emitter, pipe and pond leaks must be repaired in a timely fashion, and all irrigation systems must be tested and inspected before regular use each spring.
 - 2) All irrigation systems must be shut off and winterized between November 1st and April 1st annually.

Section 10. Guidelines for Retrofitting Landscapes

- A. On landscapes that do not contain turf, turf may be installed in accordance with the turf installation guidelines, limited to 500 square feet.
- B. Turf may not be expanded in existing landscapes containing turf, unless the current area of turf is less than 500 square feet. Total area of turf may not exceed 500 square feet.
- C. On landscapes that already contain turf, turf may be rearranged as long as the net area of turf is reduced 25 percent.
- D. Existing irrigation systems may be used as long as they can be employed to maximize irrigation efficiency on the retrofitted landscape. If this is not possible, a new irrigation system must be installed.
- E. Landscape plants must be grouped by similar irrigation requirements and irrigation systems must be set up to irrigate individual water-use zones in accordance with their individual needs.
- F. All slope and soil problems that may cause excessive runoff must be identified and clearly resolved for during the planning process.

G. Landscape elements must be appropriately maintained to maximize water-use efficiency.

- 1) All sprinkler, emitter, pipe and pond leaks must be repaired in a timely fashion and all irrigation systems must be tested and inspected before regular use each spring.
- 2) All irrigation systems must be shut off and winterized between November 1st and April 1st annually.

Section 11. Guidelines for Planning and Installation of Irrigation Systems.

- A. Automatic irrigation control systems are required on all landscapes greater than 1,000 square feet in size.
- B. Sprinklers will only be allowed on turf and other groundcovers. All other landscape plantings must be irrigated with efficient, low water-use devices (e.g. drip system or bubblers).
- C. Sprinklers may not be used on planter strips less than 10 feet wide.
- D. All irrigation controllers must be equipped with rain shut-off sensors.

Section 12. Guidelines for Promoting Groundwater Recharge and Controlling Erosion

- A. All new and retrofitted landscapes must identify potential erosion problems and ground water recharge opportunities. Often, these issues are one and the same (e.g. roof runoff through downspouts).
- B. Capturing runoff and promoting infiltration.
 - 1) All building roof runoff must be captured in infiltration systems. Roof drip line runoff must be captured in trenches that promote infiltration. Downspout runoff must be directed to a dry well system.
 - 2) The capacity of infiltration trenches and dry wells must be designed to accommodate normal storm runoff.
- C. Preventing erosion.
 - 1) All slopes and areas of bare soil must be evaluated for their erosion potential.
 - 2) All areas that are susceptible to erosion must be addressed with an erosion prevention plan (e.g. groundcovers, non-erodible mulches, retaining walls, terraces, etc.).
 - 3) Areas that contain running water from adjoining properties during rain showers or snow melt must be prepared to minimize additional erosion from the immediate property (e.g. dry stream beds, erosion resistant vegetation, etc.).

Section 13. Instructions for Submitting Landscape Plans

- A. If the new or retrofitted landscape exceeds 3,000 square feet, please submit the following:**
- 1) Appropriate addresses and contact information for the property owner and landscape contractor.
 - 2) The proposed landscape design.
 - 3) The existing landscape design, if the landscape is being retrofitted.
 - 4) Identification of low, medium, and high water-use vegetation zones.
 - 5) Plant lists associated with each water-use vegetation zone.
 - 6) The proposed irrigation system design.
 - 7) The existing irrigation system design, if the landscape is being retrofitted.
 - 8) Identification of areas with slope or soil problems that need special irrigation features to effectively irrigate these areas.
 - 9) A detailed description of solutions to irrigation problems identified in Item #8 (immediately above).
 - 10) Identification and description of ground water recharge and erosion control features.
 - 11) Proposed irrigation schedules for all landscape features.
 - 12) A list of environmental sensing devices associated with irrigation controllers (Evapotranspiration controllers, soil moisture sensors, rainfall shut-off devices, etc.).
 - 13) A detailed description of all water features.
 - 14) An estimate of water use per month (in ccfs) for all landscape features, including water loss associated with water features. 1 ccf = 748 gallons.
 - 15) A maintenance schedule for all landscape features.
 - 16) A north arrow.
 - 17) All property lines.
 - 18) Submittal and revision dates.
 - 19) A written narrative highlighting water-conserving features of the proposed landscape and its adherence to Xeriscape principles.

B. If the new or retrofitted landscape is less than 3,000 square feet and greater than 1,000 square feet, please submit the following:

- 1) Appropriate addresses and contact information for the property owner and landscape contractor.
- 2) The proposed landscape design.
- 3) If a landscape is being retrofitted, provide a written summary of the proposed changes and a list of the water-conserving features of the new landscape.
- 4) An estimate of water use per month (in ccfs) for all landscape features, including water loss associated with water features. 1 ccf = 748 gallons.

Section 14. Failure to Comply.

The penalties for failure to comply with any of the provisions of this article shall be as follows:

- A. **First violation.** The DWP will contact the violator by certified mail explaining the violation, the need for the regulation that was violated, a list of penalties associated with continued violation, and request voluntary compliance.
- B. **Second violation.** The DWP will contact the violator by certified mail explaining the violation, the need for the regulation that was violated, inform the customer of his previous violations, provide a list of penalties associated with continued violation, and add a surcharge to the customer's water bill which is twice the customer's current charge for water usage.
- C. **Third violation.** The DWP will contact the violator by certified mail explaining the violation, the need for the regulation that was violated, inform the customer of his previous violations, provide a list of penalties associated with continued violation, add a surcharge to the customer's water bill which is triple the customer's current charge for water usage, and notify the Board.
- D. **Fourth violation.** The DWP will contact the violator by certified mail explaining the violation, the need for the regulation that was violated, inform the customer of his previous violations, provide a list of penalties associated with continued violation, install a flow restrictor in the customer's water service, add a surcharge to the customer's bill which is quadruple the customer's current charge for water usage and all associated expenses to the customer's water bill, and notify the Board.
- E. **Fifth violation.** The DWP will contact the violator by certified mail explaining the violation, the need for the regulation that was violated, inform the customer of his previous violations, and, upon approval of the Board, discontinue water service to the customer until the customer delivers a notarized written agreement to abide by all water use regulations established by DWP and such other requirements as the Board may determine to be appropriate under the circumstances.

Section 15. Removal of the Flow Restrictor.

The water restrictor will be removed, or water service will be restored, whichever the case may be, upon a hearing as provided below where the customer demonstrates to the satisfaction of the General Manager that the cause of the violation has been corrected and all fees and surcharges have been paid.

Section 16. Appeal Process.

A customer shall have the right to a hearing before the General Manager if the DWP receives a written request for such a hearing on or before twenty-one (21) days after the date the notice is mailed to the customer.

The written request for a hearing shall include a statement setting forth reasons why the customer believes the violation/offense should not be imposed, along with any documentation that may substantiate the customer's position.

The customer's written request for a hearing shall include payment of the surcharge. Said payment shall be held on deposit with the DWP. If, following the hearing, it is determined the surcharge will not be imposed, the DWP will refund said deposit.

Upon receipt of a request for a hearing, the General Manager shall contact the customer regarding proposed dates for the hearing. The hearing shall be conducted at the DWP offices. The date of the hearing shall be set at a time that is mutually convenient to both parties, but in any event, shall be held on or before fifteen (15) days from the date of request.

The hearing shall be informal and shall not require adherence to any particular procedure. The General Manager shall render a written decision on or before five (5) days following the date of the hearing.

If the customer is not satisfied with the written decision of the General Manager, and is alleging that DWP's General Manager or his staff has violated DWP process, the customer may appeal the decision to the Board. For all other appeals, the appeals process will be considered completed upon the rendering of the written decision by the General Manager.

The customer shall have the right to appeal alleged DWP process violations by the General Manager or his staff to the Board, if the Board receives a written request for such an appeal hearing on or before fifteen (15) days after the date of the General Manager's decision.

Prior to establishing a hearing date, a review committee composed of one or more Board members shall review the customers written request for appeal and determine whether the appeal has merit. A hearing with the Board will only be scheduled when the result of this determination is affirmative.

The hearing before the Board shall be held at a regular Board meeting within thirty (30) days of the DWP receiving the written request for a hearing. The decision of the Board shall be final.

Section 17. Deposit of Penalty Monies.

All monies collected by the DWP, pursuant to any of the surcharge provisions of this article, shall be deposited in the Water Revenue Fund as reimbursement for the DWP's costs and expenses of administering and enforcing this article and its general Water Conservation Program.

Section 18. Severability.

If any provision of these Regulations is found to be illegal, unconstitutional, or unenforceable for any reason whatsoever, that provision shall be severed from the remaining provisions, which shall remain in full force and effect.