

Water-Wise Landscape Incentive Program Description

Current Incentives

ET Controller Rebate

The District will provide a \$150.00 rebate for the conversion of any existing standard irrigation controller with a District-approved ET-based irrigation controller that adjusts automatic scheduling parameters at least daily and can control up to six stations. An additional rebate amount of \$20.00 per station will be provided for each additional station that is operational, beyond the initial six stations already included, up to a maximum total rebate of \$750.00 per irrigation controller including the initial \$150 rebate. The annual maximum rebate amount for each site is \$1,500.00. The new controller(s) must be installed on fully operational irrigation system, at least two years old, with a minimum of four valves/zones operating.

Rain Shut-off Switch Rebate

When an irrigation controller is modified to include the operation of a new, District approved rain shut-off device, the district will provide a rebate equal to the purchase price, up to \$50.00 per device installed.

Lawn and Sprinkler Replacement Incentive

The replacement of natural, irrigated lawn with low water use features (plants and permeable non-plant material) and the conversion of associated sprinkler irrigation to drip or soaker hose type irrigation would be eligible for an incentive of \$0.50 per square foot of irrigated lawn area converted. Sprinkler irrigation conversions to drip or soaker hose type irrigation alone without the removal of lawn would be eligible for a \$0.25 incentive for each square foot of irrigated landscape area converted, not to exceed a rebate amount of \$2,000.00 per site.

Project and Product Eligibility

Only Marina Coast Water District customers are eligible to participate in the Water-wise Landscape Incentive Program.

Only products and projects purchased and/or installed and approved after October 1, 2007 qualify for the incentives.

The program applicant must be the property owner.

Incentives are only provided for renovations to existing landscapes. New construction projects are not eligible for incentives.

Only District approved ET-based irrigation controllers and rain shut-off switches are eligible for those specific incentives. The ET-based irrigation controllers must adjust watering parameters, including but not limited to, duration, frequency, and start times, automatically based upon current, local reference evapotranspiration data provided by the California Irrigation Management Information System (CIMIS) or similar, localized, weather-based information system or monitoring device.

Program Procedures

BEFORE applying and participating in the program, customers must call (831) 384-6131 to schedule a meeting with District staff. The project will be reviewed, and the required Landscape Site Survey will be conducted by District staff. The Landscape Site Survey takes about one hour of time on site. The homeowner, responsible party, or a designee who has access to the irrigation system controls must be present for the appointment.

During the site survey appointment, the Applicant shall describe the proposed project or conversion to staff. Staff verifies the existing landscape and irrigation system size and condition, components, and current water use. For large and/or complex projects, staff may request the applicant provide a landscape plan showing in detail the proposed finished project.

To assure efficient operation of any new irrigation system or components, staff recommended adjustments, repairs and modifications to the system must be completed prior to project completion and approval by the District.

To qualify for the Water-wise Landscape Incentive Program and be approved for an incentive, the following Project Criteria must be true of the proposed landscape design.

Project Criteria:

- The water use at the site must be metered.
- It must be possible to water remaining grass areas separately from other bedding areas.

- It must be possible to water high water need plants (such as vegetables, annuals or tropical plants) separately from other areas.
- The irrigation system must be in a good state of repair such that the water is being used efficiently.
- A backflow prevention device must be present and installed as required by law. If required, there must be evidence that the backflow prevention device has recently been inspected, and results filed with the District.
- The irrigation system must water areas with reasonable efficiency such that it can be used without water waste. Examples of unacceptable waste would be excessive water hitting non-plant areas, excessive water in specific areas or too little water in others, or pooling water from ineffective spray.
- As designed, the estimated water use of the new landscape must be lower than that of the landscape replaced.
- To reduce water loss through evaporation, a 3" layer of mulch material must be used in planting beds.
- Manual irrigation controls are permitted, but these systems must have a timer device utilized to shut off the water after an allotted time period. No automatic rain shut off device is required on manually controlled systems.
- All automated irrigation systems must have a rain shut off or soil moisture monitoring device installed. An incentive to purchase this device is provided by the District.

Only once the Landscape Site Survey is completed, the proposed project reviewed, and the application accepted by the District, is the Water-wise Landscape Incentive Application Form filled out with the assistance of the District staff. This application form identifies the Applicant and describes the proposed project. Initial District approval for the allocation of funds to support the project is recorded on this application. The specific design elements and an estimated date of project completion is noted. The application form is then approved and signed by the District Representative.

Once approved, the project may proceed, as planned, to completion. District staff must be notified and approve of any design changes made while the project is proceeding. All projects must be completed within 60 days, otherwise the program application will be rejected and the customer then will no longer be eligible for the incentive.

- ❖ *To assure compliance, quality, and performance, it is recommended that only a licensed, insured landscape contractor install irrigation components or modify your existing landscape. Check with your local jurisdictional officials and inquire about city, county and water district codes and ordinances before installing or modifying your irrigation system or landscape.*

Once the project is completed, the applicant must schedule a follow-up site inspection with the District representative. District staff will verify the installation and compliance with the Design Criteria, check the irrigation system operation, and will assist in irrigation scheduling if required. Staff may require proof of irrigation controller service activation.

Also, at this time, the District staff will request the Applicant provide the original product or service receipts. Original receipts for products and services older than one year are not eligible.

District staff then signs the application form verifying project completion. The rebate request is then forwarded to the District Accounting Department for incentive processing and payment. The application form and supporting documentation is then finally placed in District files.

Landscape Incentives Program Description
(Supporting Information)

ET Controllers

Conventional controllers are by far the most common way to regulate irrigation applications. These controllers are now being replaced for the following reasons:

- It is estimated that approx. 50% of residential water use goes towards outdoor use including landscaping. It is estimated that 15 - 40% of this water is not required for optimum plant growth and is therefore wasted.
- Conventional controllers do not adjust the amount of water applied automatically to compensate for changing weather or periods of incidences of rainfall. Due to the high cost and effort required to frequently adjust the conventional controllers; these adjustments are often not made.
- The evapotranspiration rate of landscape microclimates differs greatly and therefore so does the water requirement of each microclimate. Accurate calculations of the water required in each microclimate are laborious due to the various factors such as plant type, soil type, slope, sun exposure, and landscape density. All these factors should be included in such a calculation.
- Irrigation managers often over water to compensate for unexpected dry periods or to meet the higher water requirements of an irrigation system with poor uniformity. Both of these situations would lead to costly damage to the landscape.
- Over-watering leads to runoff and pollution, or gravitational water loss through the soil profile.
- Over-watering or the lack of sufficient available water causes diseases, plant stress and plant loss.
- The greatest portion of inefficiency in irrigation systems is due to improper scheduling, one of the easiest factors irrigation managers can change by installing new controllers.
- Average historical ET values may differ significantly from actual ET. Older historical ET controllers do not take into consideration the immediate weather and make-up water required after periods of high ET.

ET controllers can address the many problems of conventional controllers that contribute to water waste. The benefits are:

- ET controllers directly address the leading cause of water waste in landscapes, the lack of frequent adjustments to duration and frequency.
- ET controllers can assist the manager by calculating the proper application duration and frequency daily based on the many factors that effect evapotranspiration and gravitational water loss. This commonly saves 15-40% in irrigation water use.
- The high water savings and therefore fast payback period justify the investment to upgrade controllers.
- Runoff due to over watering can be reduced by more than 50% or almost eliminated.

There are some important considerations one must make when considering the retrofitting to an ET controller.

- Irrigation scheduling is only one of four important factors affecting the amount of water applied to landscaping. The others are distribution uniformity, irrigation system leaks, and the water need of the landscape plants.
- There is a higher initial cost and often a data service fee for ET controllers. The high water savings and fast payback period of ET controllers often justifies the additional expense.
- Plant health is often improved due to proper water application based on soil type and evapotranspiration of the landscape.
- There is some initial set-up time and an adjustment period that follows the installation of ET controllers. Site data must be collected and programmed into the controller software.

Appropriate sites for the retrofitting of ET controllers are:

1. Dedicated commercial, industrial, and institutional landscape sites.
2. Mixed use commercial sites.
3. Dedicated and mixed use multi-family sites.
4. Single family residential sites

ET Controller Rebate

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Staff chose two maximum rebates per site as the limit.

The Landscape Retrofit Rebate Application Form, District approval, original purchase receipt, verification of service activation and /or operation, and a District Water Use Survey of the property are required prior to issuance of an incentive.

Often, the incentive amount is can be 50% to 100% of the estimated controller cost. The estimated installed cost of an irrigation controller is \$40.00 per zone for smaller 6-12 station sites and \$60 for larger 24-36 station sites. The following chart shows an example of the rebate amounts provided for each standard size controller and provides comparison between the controllers estimated cost and the rebate amounts.

6 Station	(\$240 estimated cost installed) = \$150 rebate
12 Station	(\$480 estimated cost installed) = \$270 rebate
24 Station	(\$1440 estimated cost installed) = \$510 rebate
36 Station	(\$2160 estimated cost installed) = \$750 rebate

Shown in the sample calculations below, assuming a 20% reduction in water use and the 2019 2nd tier price for water in Marina, the estimated payback period to the residential customer with a larger system is 0.89 years. The estimated customer payback period for the larger commercial system is approx. 1.7 months.

** District does not guarantee payback period. The payback information is provided only as an estimated benefit of the proposed program

Example #1

Residential irrigation system, 4 zones,	1" valves	15gpm x 4 zones x 10 minutes/run time each x 3 applications/week x 42 weeks/year x 20% est. savings = 15,120 gals saved
0.89 year payback period for homeowner		= \$100.05/yr savings

Using the figures in example #1 above, if the proposed budget annually supported (35) \$150 rebates for residential systems similar to the one shown above, the savings would be 529,200 gallons annually or 1.6 AF/Yr. That would equate to \$3,281.25 in incentive payments to save one acre-foot of water.

Example #2

Commercial irrigation system, 12 zones	1.5" valves	35 gpm x 12 zones x 20 minutes/run time each x 3 applications/week x 42 weeks/year x 20 % est. savings = 211,680 gals saved
Est. payback occurs after approx. 1.7 months of irrigation.		= \$1,400.82/yr savings

Using the figures in the example above, if the proposed budget annually supported (7) large rebates for systems similar to the one shown in example #2 above, the savings would be 1,481,760 gallons annually or 4.54 AF/Yr. That would equate to \$1,890.00 in incentive payments to save one acre-foot of water.

The water use savings associated with the ET controller rebates are variable based many factors at application sites. Primarily, the larger the area irrigated, the larger the savings. It is estimated that this incentive alone can reduce water use by 1.6AF-13.6 AF annually.

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Rain Shut-off Switch Rebate

When an irrigation controller is modified to include the operation of a new rain switch device, the district will provide a rebate equal to the purchase price, up to \$50.00 per device installed. The budgeted amount for this part of the program is \$1,000.00, enough for 20 rebates annually. The quantity of rebates provided is dependant on available funds.

Basic rain switch retail cost \$35 -\$110

Example #1: Payback Period for a Small Site

Small site at 400 gallons per cycle w/ est. 20 irrigation cycles stopped annually = 13 months (first season)

If \$1,000.00 in incentives was to support the installation of 20 rain switches annually at the above rate, the annual water savings is estimated to be 160,000 gallons (.5AF) annually. That would equate to \$2000 in incentive payments to save one acre-foot of water.

Example #2: Payback Period for a Medium Sized Site

Medium site or larger at 8,400 gals/cycle = 1 cycle

If \$1,000.00 in incentives was to support the installation of 20 rain switches annually at the above rate, the annual water savings is estimated to be 3.36 million gallons (10.31AF) annually. That would equate to \$97 in incentive payments to save one acre-foot of water.

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Lawn and Sprinkler Replacement Incentive

The replacement of natural, irrigated lawn with low water use plantings and the conversion of associated sprinkler irrigation to drip or soaker hose type irrigation would be eligible for an incentive of \$0.50 per square foot of irrigated lawn area converted. Sprinkler irrigation conversions to drip or soaker hose type irrigation alone without the removal of lawn would be eligible for a \$0.25 incentive for each square foot of irrigated landscape area converted, not to exceed a rebate amount of \$2,000.00 annually per site.

Conversion of 1,000 Sq. Ft. of turf grass to drought tolerant, low water use plants is estimated to reduce the water requirement by 77%. The reduction in plant water needs is lowered from approximately 37,200 gallons/year to 8,680 gallons/year per 1000 square feet. Replacing 1000 Sq. Ft. of turf grass would save approx. 28,520 gallons of water. The annual estimated water savings for a typical 500 Sq. Ft. lawn conversion project in Marina is \$94.36.