IRRIGATION ASSOCIATION

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# Smart Water Application Technologies (SWAT) Performance Report

**Testing Agency: Center for Irrigation Technology** **www.californiawater.org**

**Product: Hydrosaver ETIC Controller (24-station)**

**Product Type: Climatologically Based Controller**

**Product Description: The tested ETIC controller uses a programmable historical ET data scheduling engine. The controller does not have the ability to account for rainfall as tested without rain sensor.**

**SWAT Protocol*: Turf and Landscape Equipment Climatologically Based Controllers 7th Draft Testing Protocol (Nov. 2006)**

The concept of climatologically controlling irrigation systems has an extensive history of scientific study and documentation. The objective of this protocol is to evaluate how well current commercial technology has integrated the scientific data into a practical system that meets the agronomic needs of turf and landscape plants. The evaluation is accomplished by creating a virtual landscape subjected to a representative climate to evaluate the ability of individual controllers to adequately and efficiently irrigate that landscape. After initial programming and calibration the controller is expected to perform without further intervention during the test period. Performance results indicate to what degree the controller maintained root zone moistures within an acceptable range. If moisture levels are maintained without deficit, it can be assumed the crop growth and quality will be adequate. If moisture levels are maintained without excess it can be assumed that scheduling is efficient.

***All SWAT protocol may be viewed at www.irrigation.org**

## Hydrosaver ETIC Controller SWAT Performance Summary

| Irrigation Adequacy | Irrigation Excess |
|---|---|
| **Minimum of 6 test zones: 94.8%**<br>**Maximum of 6 test zones: 100%**<br>**Mean/Average of 6 test zones: 98.9%**<br>**Irrigation Adequacy** represents how well irrigation met the needs of the plant material. This reflects the percentage of required water for turf or plant material supplied by rainfall and controller-scheduled irrigations. Research suggests that if this value is between 80% and 100%, the acceptable quality of vegetation will be maintained. | **Minimum of 6 test zones: 0%**<br>**Maximum of 6 test zones: 6.9%**<br>**Mean/Average of 6 test zones: 1.5%**<br>**Irrigation Excess** represents how much irrigation water was applied beyond the needs of the plant material. This reflects the percentage of water applied in excess of 100% of required water according to data from CIMIS station #90 Alturas, Modoc County during the test period. |

## Product Detail Supplied by Manufacturer

**Hydrosaver ETIC** **www.hydrosaver.net**

| Installation | Data Source | Data Link | Initial Purchase | Additional Hardware | Additional Fees |
|---|---|---|---|---|---|
| Replaces existing controller or is installed on a new system. | Tested with on-board historical CIMIS data. Optional stand-alone source is electronic ET sensor. Also, can be programmed with historical data from any ET source or method. | Tested as stand-alone. Optional: wireless net-work, internet, landline or cell phone communication supported. | Purchase price based on number of zones and other options. | ❑ WCS RainGuard Rain Sensor<br>❑ Optional battery-operated<br>❑ WCS Electronic Sensor<br>❑ Wireless communication<br>❑ Servers | Additional charges dependent upon selected communication option. |

**Additional Features**

| Zones | Time of Day | Day of Week | Other | If Data Link is Discontinued |
|---|---|---|---|---|
| ETIC 24 controls 24 stations and has 4 additional outputs for master valves and pumps. | Capable of restricting the time of day for watering. | Capable of restricting watering days by selection or interval. | ❑ Available in 4, 8, 12, 16, 24, 36, 48 or 56 stations<br>❑ Cycle and soak automatic program feature<br>❑ Flow sensing<br>❑ Adjustable ET percent for each program<br>❑ ET on/off for each program<br>❑ Average ET adjustment | Uses historical data (CIMIS loaded in CA) or optional electronic ET sensor. 10-year lithium backup battery included. |