Water Quality (WQ) Consultants

April 5, 2018
Delta Measurement Experimentation Consortium Meeting
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DEMONSTRATION INFORMATION
Mark 1 Software

Mark 1 software, included with the hardware purchase, provides a summary dashboard of the measurements taken. The dashboard is located in a secure, access controlled, section of www.telemeterhome.com. Continuously updated, the information is embedded in the dashboard. Measurement data, via cellular telemetry, is graphed and available for immediate viewing on a grower's laptop. The data can be downloaded directly into the grower's Excel, or other database. Mark 1 software satisfies the requirement of SB 88 for reporting and data retention.

Summaries available are:

- Water Levels

A user selected number of days and frequency of measuring is displayed. The default display is 5 days with an hourly measurement schedule. Additional or fewer days can be selected. The measuring frequency can be adjusted. The default graphic is a line graph. Other displays such as a bar graph are available.

- Download data

Data can be delivered directly to an Excel or other database. Data can be downloaded, at a user's option, daily, weekly, or monthly. Please note there is a download setting showing the default number 1. If 1 is set, all measurements are downloaded. If 2 is set only every second measurement will be downloaded and so on. The application being that if measurements are taken every fifteen minutes, only hourly measurements (a setting of 4) need be downloaded. Hourly being the recording time set for many growers by SWRCB

- Cumulative Flow

The measuring interval is user determined. Available in either gallons per minute or cubic feet per second. (This is not demonstrated)

- Battery voltage, internal temperature and humidity are tracked.

If measurements are out of the norm, either too high or too low, the Mark 1 will alert the user with a text message or email. (These three are demonstrated. Note that the voltage chart is a bar graph.)

The advanced Mark 1 PS Model contains a mini SD memory card for internal measurement data retention. This would be of use In the event of a cellular transmission failure. This new PS model has an improved solar panel for better battery charging. The unit can be grower installed.

The Mark 1 PS model is mounted on the water side of the siphon, between the stream and the apex of the siphon. Three measurements are required to develop a measuring algorithm for siphon flow; specifically, stream height to determine tidal flow, water pressure within the siphon in its various open and closed positions, and downstream backwater pressure. Stream height is measured by the ultrasonic sonar, water pressure by the pressure sensor component of the Mark 1. Stage information can then be shared and used by other siphons in the stream adjacent to the unit measuring stream level.

We have a prototype at: www.telemeterhome.com/login. User name is: guest. Login: tryme1#.