

# Panoche Drainage District Irrigation System Improvement Project

## **Purpose:**

The purpose of the project is to replace less efficient irrigation systems (head-ditch/furrow and siphon tube irrigation) with more efficient irrigation systems (tailwater recirculation system, gated-pipe/furrow, drip or micro sprinkler systems with water recycling systems). These improvements will result in reduced irrigation tailwater and contaminants (including selenium, boron, salt, and oxygen-consuming nutrients) discharged to the San Joaquin River and the Sacramento-San Joaquin Delta. In addition to the water quality benefits, the irrigation improvements will directly benefit water conservation efforts in the San Joaquin Valley

The District previously received \$1.8 million in Agricultural Drainage Loan Program funding for implementation of similar projects. Currently, the District has \$4,000,000 in Agricultural Drainage Management Loan Program (ADMLP) financing assistance to fund these projects. Funds will be used to purchase high efficiency irrigation equipment that will be leased to growers converting head-ditch/furrow and siphon tube irrigation to gated-pipe/furrow, drip or micro sprinkler systems with water recycling systems and installation of tailwater recirculation systems.

The District encompasses about 56 thousand acres of irrigated land, and grows 85% row crops and 15% permanent crops. According to District representatives about 50% of the farms are currently using micro irrigation and the remaining 50% use furrows and sprinkler systems for irrigation.

## **Photos of Installed Equipment**

### **Delta Mendota Canal Diversion Point**



**A-Bar Ag. Enterprise Pump**



**A-Bar Ag. Enterprise – Disc Filter**



**A-Bar Ag. Enterprise – Disc Filter**



**Supply Line with Metering Device**



**Underground Micro Emitter Irrigation Strip**



**Solar Satellite - panel used to receive real time data from CIMS**



**DelMar Farm - Sand Media Filter**



**DelMar Farm- Sand Media Filter**



**DelMar Farm - Outgoing Supply line**



**DelMar Farm – incoming Supply line**



**Main Irrigation Line**



**Linneman Ranch Farm - Sand Media Filter**



**Linneman Ranch Farm – Incoming Supply Line**



**Linneman Ranch Farm - Control Panel**



**Linneman Ranch Farm – underground micro emitter irrigation and Main Irrigation Line**

