Central California Irrigation District

Modernization and Automation

Main Canal: 70 miles
Outside Canal: 56 miles
Sullivan Extension: 6 miles

Downstream Control

- Eight existing check structures were optimized along the Lower Main Canal for automatic downstream control downstream of Ingomar Reservoir.
- This type of control allows for "demand" operation of turnouts that are supplied by the canal pools.
- Each check has unique algorithm (formula) constants and the algorithm is run independently at each location.

Upstream Control

- 13 flashboard check structures on the Upper Main Canal and Outside Canal were retrofitted with Langemann gates for upstream control upstream of Ingomar Reservoir.
- Updated Langemann gates, 6 existing radial gates, and 1 existing sluice gate were equipped with RTUs and automated for upstream water level control (with capability for remote manual control).
- New connections between Main Canal and Outside Canal
- Existing headworks of community ditches and major delivery laterals from the Upper Main Canal modified for automatic flow control to maintain target flow rates at new Replogle flumes

Future: New Reservoirs

Upgrades are recommended for existing reservoirs in the southern region, and three new reservoirs are proposed.

Pumps at Laguna Reservoir

SCADA

Supervisory Control and Data Acquisition

Ratial gates and office SCADA HMI for Firebaugh Weir site

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