2015-16 Projects

REGULATION BASINS

FID strives to improve groundwater levels by percolating water using recharge basins. This last maintenance season FID crews ripped Axt Pond, located northwest of Barstow and Chateau Fresno, and hired a contractor to deep rip portions of the Waldron Banking Facility located northeast of Nielsen and Bishop, Lambrecht Banking Facility located southwest of Shaw and Goldenrod and Empire Banking Facility located northwest of Shields and Jameson avenues. Ripping the basins helps the water percolate into the ground improving groundwater levels. All basins were also disced to improve percolation. In addition, a long-crested weir (LCW) structure was constructed in Cardwell Pond to better regulate flow fluctuations into the pond and the Deadwood system and provide more consistent water service to its customers.

IMPROVED CANAL REGULATION

FID crews retrofitted four regulating structures with LCWs this past maintenance season. The LCWs were installed on the following canals: Storey, Oleander North Branch, Washington Colony Center Branch and Washington Colony South Branch. LCWs allow a large flow rate to pass with just a small increase in water surface elevation upstream of the check structure. The design is simple: provide more weir length to better control upstream water levels for better service to the water user.

CANAL LINING

FID crews concrete lined (sides and floor) approximately 83,000 square-feet of the Dry Creek Canal through town. The sections lined were areas that were difficult to maintain and/or the existing concrete panels were collapsing. The floor of the canal was lined to increase the structural integrity by providing support for the sides and footings. It also keeps debris from collecting at the bottom allowing the water to flow smoother which in turn increases the capacity of the canal. In addition, FID crews replaced a deteriorating concrete block liner along the American Colony Canal (near the southwest corner of Malaga and Cedar avenues) with approximately 1,900 square-feet of concrete liner.

PIPELINE REPLACEMENT PROJECTS

FID replaced approximately 3,830 feet (just under three-quarters of a mile) of failing infrastructure ending the need of frequent repairs and avoiding disruptions to grower service. There were four (4) facilities that had sections of pipe replaced: 1) Thompson Canal where 1,360 feet of 36-inch cast-in-place concrete pipe was replaced with 48-inch rubber-gasketed reinforced concrete pipe northwest of Belmont and Jameson avenues; 2) Barcus Canal where 1,320 feet of 30-inch cast-in-place concrete pipe was replaced with 30-inch rubber-gasketed PVC Class 100 pipe southeast of Sierra and Dower avenues; 3) Blassingame Canal where 700 feet of 20-inch mortar joint pipe was replaced with 21-inch rubber-gasketed PVC Class 100 pipe southwest of Clinton and McCall avenues; and 4) Flume Canal where 450 feet of 36-inch mortar joint pipe was replaced with 42-inch rubber-gasketed reinforced concrete pipe northwest of Barstow and Chateau Fresno avenues.

OPEN CHANNEL SUBSTITUTION PROJECT

Approximately 1,250 feet of the Barstow South Lateral #2 was substituted with 21-inch rubber-gasketed PVC Class 100 pipe northwest of Gettysburg and Dickenson avenues. This was a Landowner Project where the landowner realigned and piped the canal to increase the amount of land that can be farmed as well as to facilitate more efficient farming practices.

IMPROVEMENTS BY DEVELOPERS

Developers installed approximately 8,150 feet (1.54 miles) of rubber-gasketed reinforced concrete pipeline valued at $1.5 million to bring existing systems up to current urban standards. Some 3,780 feet of open channel canals were substituted with pipe: Jefferson (1,580’), Redbanks (930’) and Wilder (1,270’). The other 4,370 feet was old monolithic concrete pipelines (cast-in-place) which were replaced with rubber-gasketed reinforced concrete pipelines: North Central (1,800’), Reyburn (1,000’), Braly (650’), Clovis South Branch (420’), Brown (360’) and the Helm (140’).

FUTURE PROJECTS

FID is in the planning stages of the final year of a 3-year Capital Improvements Plan, focusing on canal lining, retrofitting regulating structures with long-crested weirs, replacement of deteriorated pipelines, and lining or piping problem canals.