


# Finished Water

A PHOTOGRAPHIC PROFILE



Sections of large-diameter PE 4710 HDPE pipe were fused together to make a leak-free line that runs more than 20 miles. The buried pipeline provides water to irrigate more than 53,000 acres of farmland in northeast Utah.

## PIPELINE ELIMINATES INFILTRATION, ACHIEVES ZERO WATER LOSS

Installation of a 21.2-mile high-density polyethylene (HDPE) irrigation pipeline recently halted salt infiltration into Upper Colorado River Basin groundwater that irrigates thousands of acres of farmland in northeastern Utah. Seepage from unlined portions of irrigation canals and laterals had been dissolving salts into the soil, which subsequently were carried into the Upper Colorado River Basin. Buried solid-wall PE 4710 HDPE pipe, ranging in size from 4- to 42-in. diameter, replaced the open canals and ditches.

Dry Gulch Irrigation canals and open waterways have provided irrigation water to more than 53,000 acres of farmland since 1905. In 2010, a plan was implemented to design the Hancock

Lateral Pipeline, an enclosed, pressurized water distribution system, to replace open canals with buried HDPE.

The enclosed canal is delivering 30 percent more water, because water is no longer lost through evaporation and seepage. The pressurized distribution system allowed more than 3,000 acres of flood-irrigated land to be converted to sprinklers, eliminating the need for and cost of pumping by farmers who already use sprinklers for irrigation. In addition, increased water availability has extended the growing season and crop production. The pipeline has reduced the 120,000 tons/year of off-farm salt carried down the Colorado River by 2,400 tons/year.

### PROJECT SPECIFICS

**Project Name:** Hancock Lateral Pipeline, Roosevelt, Utah

**Owner:** Dry Gulch Irrigation

**Pipe Manufacturer:** WL Plastics

**Water Source:** Big Sand Wash Reservoir and Cottonwood Creek

**Technology:** 4- to 42-in.-diameter HDPE (PE 4710) pipe

**Project Cost:** \$6.5 million, with funding provided by the US Bureau of Reclamation, Utah Department of Agriculture, Natural Resources Conservation Service, Utah Division of Water Resources, and Dry Gulch Irrigation shareholders

**Awards:** Plastics Pipe Institute's 2011 Municipal and Industrial Project of the Year Award

PHOTOGRAPH: WL PLASTICS