

American Recovery and Reinvestment Act Projects

National Elk Refuge — May 7, 2010



Crews lay pipe in place in preparation for fusing and installation.

Despite frequent snow flurries and strong winds throughout the first week of May, two American Recovery and Reinvestment Act projects on the National Elk Refuge continued to move ahead.

Irrigation Expansion Project

Westwood Curtis Construction, a local company sub-contracted through Yerba Buena Engineering & Construction to install the irrigation system's main line, held a training session early this week to cover the operation and safety aspects of the machines that fuse the main line pipe segments together. The two fusers on site, supplied by ISCO Industries, are designed to accommodate large diameter pipe.

Crews began fusing pipe by mid-week, a process that can take up to 1½ hours per segment of 42" diameter pipe. Each pipe end is first wiped down with isopropyl alcohol using a lint-free cloth to clear the surface of oil or dirt. Once the two ends are placed in the fuser, a blade shaves the edges to create a smooth, perfectly matched joint. The pipe ends are then heated to 450°F, pressed together, and cooled. The cooling process is expedited with compressed air blown onto the new joint. When the temperature drops to 100°F or lower, the pipe can be pulled through the fuser and the next section prepared.

In an effort to increase efficiency and production, the entire main line pipe will be fused together in one three-week process. Once all the the segments are joined, crews will

return to the starting location of the project and begin the excavation, placement, and backfill of the main line pipe.

While Westwood Curtis Construction was busy fusing main line pipe, Yerba Buena Construction & Engineering began laying out the smaller lateral irrigation pipe in rows along the route where it will eventually be installed underground. When the pipe is prepared and in place, a Fast Fusion machine will mobilize and move along the pipeline route, connecting the lateral sections on location.

While the project contractor continued to move ahead with pipeline work, U.S. Fish and Wildlife Service staff began covering many of the ditches

A Westwood Curtis Construction fuser operator aligns a 42" diameter pipe section into the machine.



previously used for flood irrigation, the process used throughout much of the Refuge's farming history. National Elk Refuge maintenance personnel Fernando Escobedo and Kirk Hayenga designed and built an implement for filling in the ditches, constructing an inverted V-plow for the front of a Challenger used during feeding operations. The grader blades shave off each shoulder of the irrigation ditch, pulling material into the center to fill in the area.

Refuge staff will reduce the number of acres irrigated this summer due to the construction of the new system. Approximately 300 acres will be irrigated this upcoming season, or roughly one-third of the annual average number of acres irrigated in previous years.

North Highway 89 Pathway Project

Refuge Manager Steve Kallin

With pipe for the new irrigation system in the background, an irrigation canal serviced by an old headgate was filled in and will no longer be used for flood irrigation.



An elevated view from the Bridger-Teton National Forest's Curtis Canyon Overlook highlights some of the National Elk Refuge irrigation ditches filled in during the past few weeks.



attended a Teton County Commissioners' meeting this week to approve a Memorandum of Understanding (MOU) for the pathway project. The MOU outlines the roles and responsibilities for each cooperating entity in the construction, maintenance, and operation of the pathway. The first phase of the pathway is primarily located on National Elk Refuge land within the Wyoming Department of Transportation highway easement, running from the Town of Jackson to the southern boundary of Grand Teton National Park.

Evans Construction Company, a Jackson-based contractor for the project, began work this week on the south end of the pathway, which begins on the south side of the Flat Creek Bridge within the Town of Jackson. The existing sidewalk will be widened from five feet to ten, and the curb modified to make it accessible for people with mobility disabilities. The concrete for the sidewalk renovation is scheduled to be poured next week.

Evans Construction also began work on a retaining wall to be located immediately north of the Flat Creek Bridge.



Crews begin work on a retaining wall on the north side of the Flat Creek Bridge.