



NRCS chooses MegaDitch to Improve Irrigation near Missouri Heights Reservoir near Garfield County, CO.



MegaDitch lined irrigation channel conveys much needed water to ranchers.



The contractor used a GPS guided blade to form the channel.



Soil conditions were perfect for a smooth installation.



The new MegaDitch channel will be ready in time for the spring thaw and annual water release.

MegaDitch® was specified, and recently installed, as part of an NRCS project to improve irrigation to ranchers. The stretch of ditch runs from the Missouri Heights Reservoir near Glenwood Springs and serves eastern Garfield County.

“This is one of the first in the country,” said Dennis Davidson, conservationist for the districts. “Lining a ditch to prevent seeping and to keep water moving in a ditch without much of a natural slope wasn’t always easy or affordable. This new technology makes it a more sensible solution,” Davidson added.

Davidson said the conservation district could have used four 18-inch tubes to transfer water, but that would have been significantly more expensive. “We believe MegaDitch can be a good application for ranchers who want their water to remain visible instead of flowing into an enclosed pipe,” Davidson added.

The new 3540’ MegaDitch channel required two bases and one side wall to accommodate the annual spring melt and irrigation flow.

In addition to reducing water loss, MegaDitch will also improve erosion control and prevent plant growth within the channel, which historically had required significant maintenance to keep the channel clear.

There were several challenges, along with the use of modern technology, to install this project:

- It was installed during the winter, in Colorado at an elevation of 8500 ft.
- The Contractor used tarps to cover excavated channel sections to prevent freezing and facilitate MegaDitch installation.
- A motorized fence post driver was used to install the anchors.
- A GPS guided bull dozer blade with side wings was used to form the channel. GPS controlled the level of the blade to ensure correct elevation of the channel bottom.
- For more information about the engineering details about this installation, contact Mark Maederer: markmaederer@pendaform.com.

QUICK FACTS:

Project: Missouri Heights Reservoir Irrigation Ditch

Problem: Water seepage, water loss through evaporation and soil erosion along the old earthen irrigation ditch

Solution: 3450’ of MegaDitch
2 bases wide, 1 wall high

Installation Contractor: Kuerston Construction, Rifle, CO

Design Engineer: Mike Kishimoto | Civil Engineering Technician | NRCS

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