

FEATURE 19: McCLUSKY CANAL TO HILLSBORO PIPELINE

Description

This feature is a follow-up of a proposed alternative described in the March 1997 Cost Comparison Garrison Diversion Unit, by the Dakotas Area Office, Engineering & Construction Division. The concept is an import of Missouri River water to the Red River Valley, delivered to the major municipal areas of Fargo and Grand Forks. The delivery system consists of a biota treatment plant on the McClusky Canal where the water supply would be pumped by pipeline to the Red River near Hillsboro, ND. Near Hillsboro, the pipeline would tee with 75 cfs of the flow delivered to Fargo and 25 cfs discharged into the Red River for diversion and use by Grand Forks.

During the HYDROSS model runs, the shortage demand on the Sheyenne River required an import flow of 72 cfs. This import covered the shortages for municipal, industrial, and rural water systems. When the demands for Grand Forks water quality enhancement (20 cfs) and the combined northern valley rural water systems (5 cfs) are added to the model, the import became 97 cfs. The total import should be slightly higher to account for miscellaneous river losses between the Hillsboro discharge point and the diversion at Grand Forks. For this level of estimate, the previously estimated 100 cfs import pipeline will be used as the basis for cost estimate of Feature 19. In addition to the pipeline costs, the biota treatment plant, Snake Creek Pumping Plant rehabilitation, McClusky Canal repairs, surface water treatment plants and distribution lines for rural water systems (Feature 17), and a pipeline to deliver 18 cfs to the upper Red River shortages would be needed to meet the entire needs of the 2050 Reclamation projections. The following table provides the cost estimated summary of the entire supply system. The cost estimate worksheet for Feature 19 provides a cost breakdown of the items estimated in Feature 19 only.

The costs for this feature are summarized as follows:

Feature 19	Construction Cost	Annual OM&R	Annualized Cost
Feature 19 Pipeline	\$535,860,000	\$4,180,000	\$42,400,000

