

RIO GRANDE DIVERSION INFRASTRUCTURE INVENTORY

Structure Name: KNOBLAUCH D

Reported By: Daniel Boyes

Date: May 7, 2019

Headgate	Latitude	Longitude
Location:	37.37.693144	-106.494957

Headgate Type: Manually operated 1' wide steel slide gate

Headgate Condition:	A <input type="checkbox"/>	Diversion and Other Condition:	A <input type="checkbox"/>	River Miles from New Mexico State Line (Point of Diversion):	Structure Submerged: Yes <input checked="" type="checkbox"/>
	B <input checked="" type="checkbox"/>		B- <input checked="" type="checkbox"/>		No <input type="checkbox"/>
	C <input type="checkbox"/>		C <input type="checkbox"/>	111.18 mi	
	D <input type="checkbox"/>		D <input type="checkbox"/>		
	F <input type="checkbox"/>		F <input type="checkbox"/>		

Repair(s) or Improvement(s) Completed Since 2006: N/A

Structure Description: This structure shares a diversion dam and headwall with the Independent Ditch #2. The W-shaped diversion dam, made up of boulders, directs water to a headgate located on the north bank of the river. Recent high flow events have shifted some of the boulders which make up the diversion, resulting in a boating hazard and making water diversion at low flows very challenging. A trash rack made of 4-inch galvanized metal fence sits in front of the headgate, which does not seal properly. Beginning at the headgate, water is conveyed via a subterranean pipeline for ~100 ft and then delivered to an open ditch. There are various materials stabilizing the banks upstream of the structure and around the headwall. However, the banks that are not reinforced are largely unstable and subject to erosion. This structure is located on the outside of a bend just upstream of the apex. According to the 2001 Rio Grande Headwaters Restoration Project, this meander is tightening and there is potential for the entire meander to be cut off during a high flow event, making this structure unusable.

Repair(s) or Improvement(s) Currently Needed: Given these issues, the SMP Technical Advisory Team (TAT) recommends improving the diversion dam, repairing or replacing the headgate, and revegetating and stabilizing the adjacent streambanks. An improved diversion could be designed to be easily passable by boats while also effectively diverting water at all flows. Streambank stabilization and riparian revegetation would mitigate erosion and reduce the risk of bank failure and future impacts to the structure.

Comments: This ditch includes priorities 258, and 1916-23.

Notes:

Estimated Range of Cost: Medium

Headgate looking downstream



Headgate and diversion dam



Pipeline outlet, beginning of open ditch



Rio Grande downstream of diversion dam



Flume looking downstream



Flume looking upstream

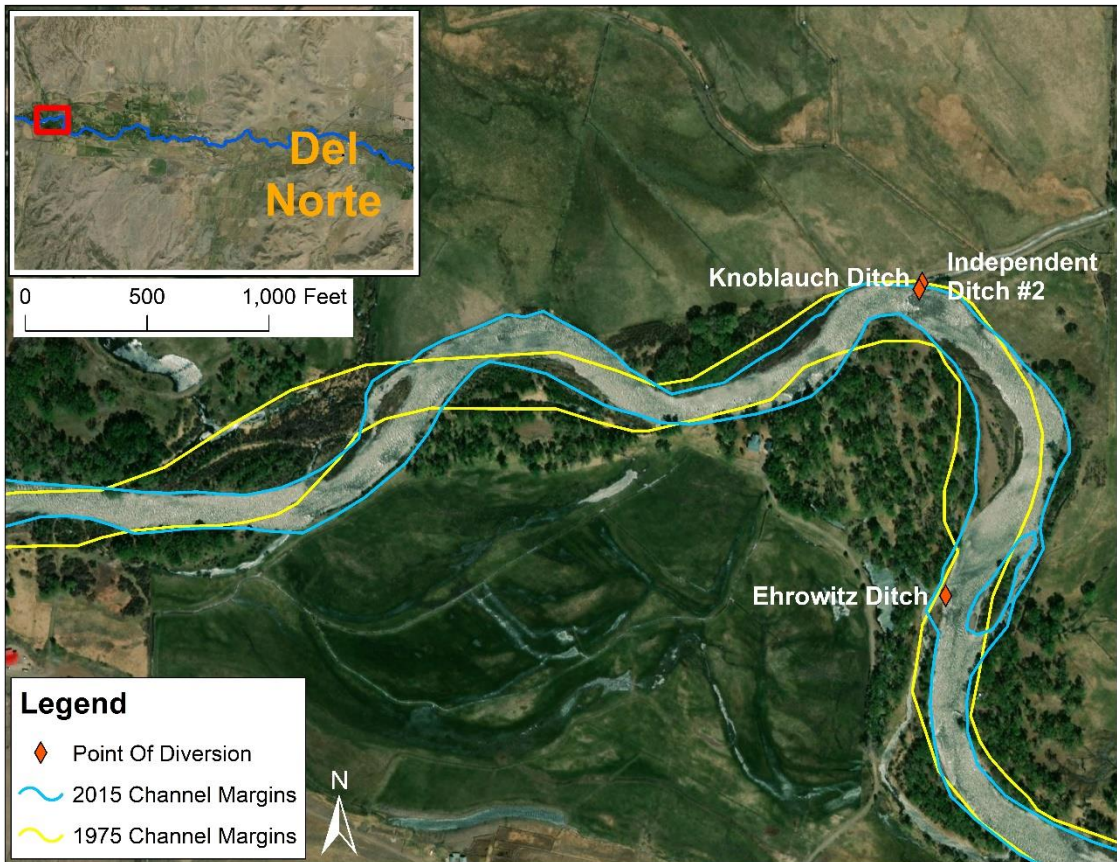


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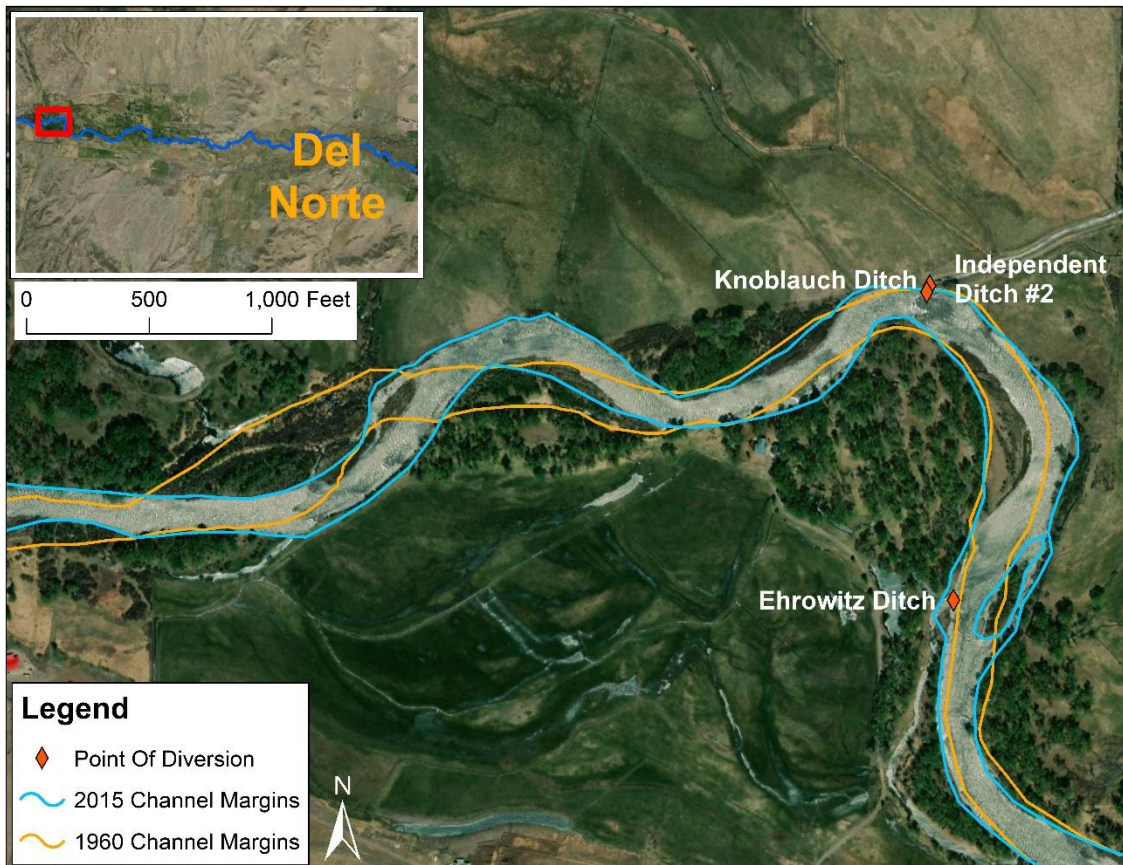
KNOBLAUCH DITCH

PHOTO LOG

**Rio Grande Stream
Management Plan**



Knoblauch Ditch relative to the Independent #2 and Ehrowitz ditches. Diversion and headgate locations with 1975 and 2015 channel margins are overlaid. This highlights the tightening of the bend on which this structure is located.



Knoblauch Ditch headgate with 1960 and 2015 channel margins