

CONEJOS RIVER

DIVERSION INFRASTRUCTURE INVENTORY

Structure Name: GUADALUPE MAIN D

Reported By: Daniel Boyes

Date: April 14, 2019

Headgate	Latitude	Longitude					
Location:	37.087355	-106.044027					
Headgate Condition:	A <input type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/>	Diversion and Other Conditions:	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input checked="" type="checkbox"/> F <input type="checkbox"/>	River Miles From Rio Grande Confluence (Point Of Diversion):	33.24 mi	Structure Submerged:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Headgate Type: Manually operated 5' wide steel slide gate

Repair(s) or Improvement(s) Completed Since 2006: A new diversion dam and sluice gate were installed on the feeder ditch. The access road over the headgate culvert was repaired.

Structure Description: A U-shaped rock weir diversion dam directs flow from the river to a feeder channel, located on the north bank of the river. The feeder channel is approximately 600 ft long and delivers water to the headgate. A second smaller rock weir diversion directs flow from the feeder channel to the headgate, which is located on the north side of the channel. The concrete headwall is spalling very badly and exposing reinforcing steel. A return flow channel directs unused water back to the river to the southeast. Debris and sediment accumulation is an issue in the return flow carrier. The river channel has migrated historically in this area, which may cause issues at the diversion dam in the future. The meander upstream of the diversion is growing and accelerated erosion will cause the feeder channel to be bypassed if bank erosion continues. Additionally, the river had been historically dredged leaving high berms (now failing) that prevent the river from accessing the rivers natural floodplain.

Repair(s) or Improvement(s) Currently Needed: Given the issues identified at this structure, the SMP Technical Advisory Team (TAT) recommends bank stabilization upstream of the diversion, including riparian revegetation and floodplain reconnection, improving the return flow channel, and replacing the headgate. Bank stabilization and floodplain reconnection will help reduce future bank erosion on the bend and create low flow fish habitat. Return flow channel improvements will allow the channel to effectively convey return flows and headgate replacement will improve efficiency and reduce maintenance. If improvements are made to the diversion, the TAT also recommends maintaining fish passage to preserve aquatic habitat connectivity.

Comments: This ditch is a priority 1

Notes:

Estimated Range of Cost: Medium

Headgate looking downstream



Headgate outlet



Sluice gate adjacent to headgate



Diversion dam on feeder channel



Return flow channel looking downstream



Flume looking upstream



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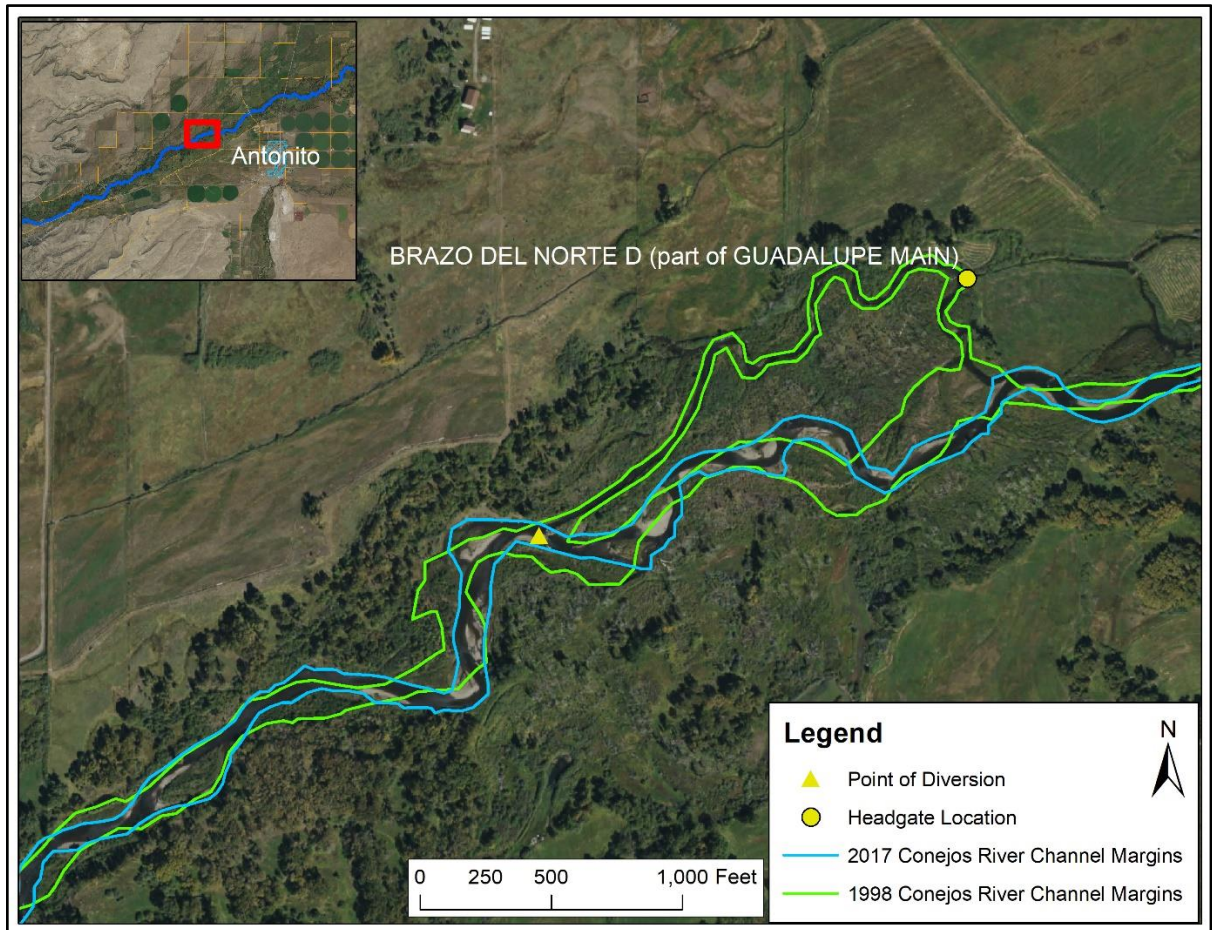
GUADALUPE MAIN DITCH

PHOTO LOG

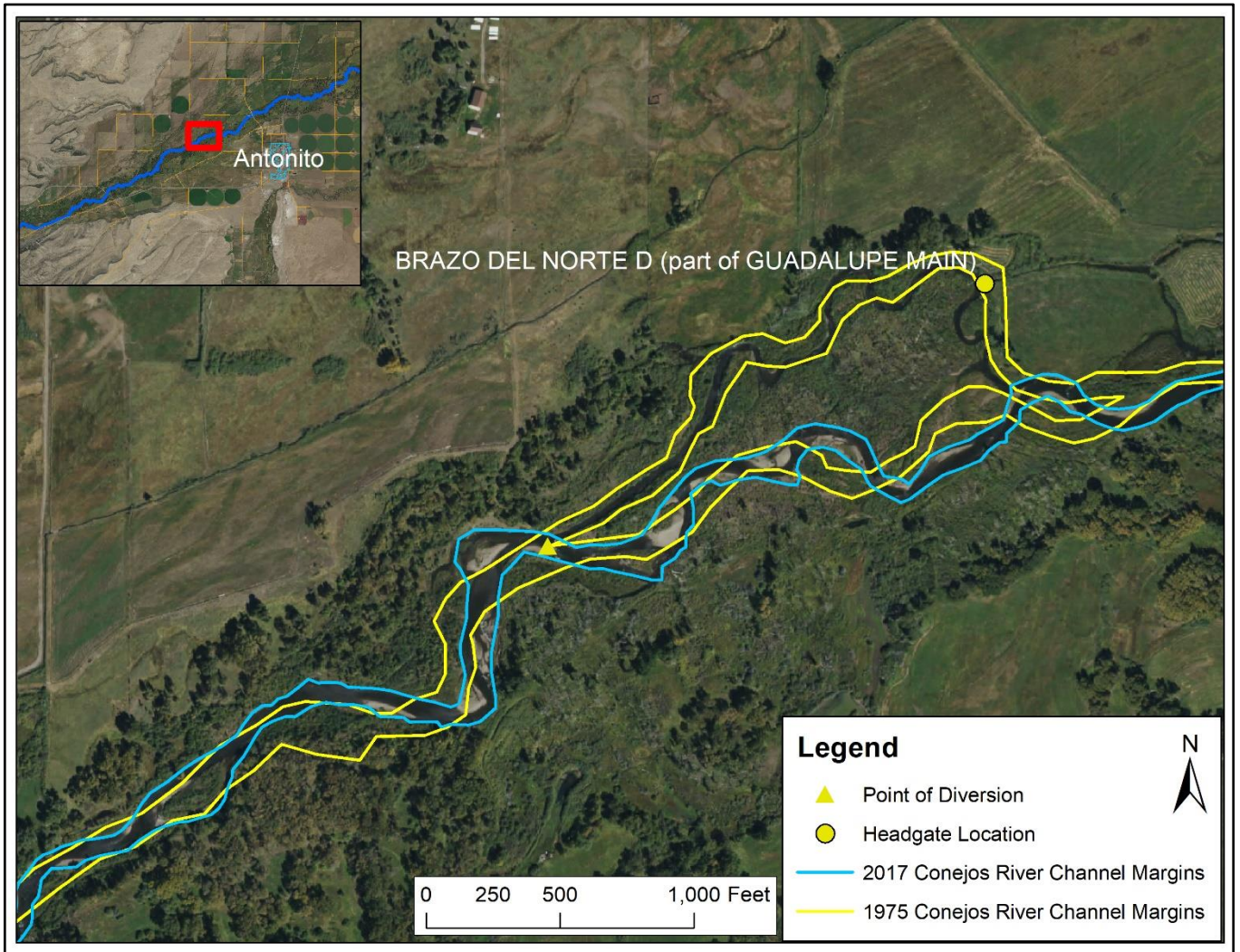
Conejos River Stream
Management Plan



Diversion dam on Conejos River looking downstream



Guadalupe Main point of diversion with 1998 and 2017 channel margins overlaid.



Guadalupe Main point of diversion with 1975 and 2017 channel margins overlaid.