

# CONEJOS RIVER

## DIVERSION INFRASTRUCTURE INVENTORY

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**Structure Name:** NORTH EASTERN D

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**Reported By:** Daniel Boyes

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**Date:** April 14, 2019

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Headgate	Latitude	Longitude
Location:	37.068313	-106.092378

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**Headgate Type:** Manually operated 8' wide radial gate

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<b>Headgate Condition:</b>	A <input type="checkbox"/>	<b>Diversion and Other Conditions:</b>	A <input type="checkbox"/>	<b>River Miles from Rio Grande Confluence (Point of Diversion):</b>	<b>Structure Submerged:</b> Yes <input type="checkbox"/>
	B <input type="checkbox"/>		B <input type="checkbox"/>		No <input checked="" type="checkbox"/>
	C <input type="checkbox"/>		C <input type="checkbox"/>	37.88 mi	
	D <input checked="" type="checkbox"/>		D <input checked="" type="checkbox"/>		
	F <input type="checkbox"/>		F <input type="checkbox"/>		

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**Repair(s) or Improvement(s) Completed Since 2006:** None

**Structure Description:** This structure's diversion is approximately 150 ft downstream of the New JB Romero diversion. Water is diverted off the Conejos River by a boulder diversion dam to a river headgate and carrier channel. Adjacent to the river headgate is a repurposed molasses tank that is intended to prevent high flows from entering the feeder channel. The carrier channel then transports water approximately 1.7 miles to the main headgate, which also services the priority 35 Bernardo Romero Ditch. A check board diversion structure on the feeder channel diverts water to the main headgate, which is often obstructed by debris and sediment. Any unused water returns to the river via an approximately 0.75 mile return flow channel, which reaches the river just upstream of the La Del Rio Ditch. In this area, the river has migrated in the past, as described under the New JB Romero description, and channel avulsion could cause the river to bypass the point of diversion. The river headgate at the point of diversion is tilted and does not function well. The concrete stabilizing the main headgate and diversion dam on the feeder channel are spalling and in poor condition. The banks surrounding the diversion and headgate on the feeder channel need to be built up and reinforced regularly to prevent flows from bypassing the structure.

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**Repair(s) or Improvement(s) Currently Needed:** Given the issues identified at this structure, the SMP Technical Advisory Team (TAT) recommends replacing the river headgate and diversion dam as well as the main diversion and headgate on the feeder channel. The TAT further recommends headgate automation for the main headgate. New diversions and automated headgates would allow this structure to divert water at all flows and would increase efficiency and reduce maintenance. During high flows, the ditch's feeder channel acts as a secondary river channel, thereby dispersing flood flows and reducing downstream risk. The TAT recommends maintaining the feeder channel's overflow capability to mitigate flood risk. Additionally, the TAT recommends maintaining fish passage to preserve aquatic habitat connectivity in this reach. As noted under the New JB Romero description, an alternate solution to these issues is to combine the point of diversion and feeder channel with that of the New JB Romero Ditch to reduce maintenance and impacts to the river.

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**Comments:** This structure services two ditches – the priority 35 Bernardo Romero Ditch and the priority 66 North Eastern Ditch.

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**Notes:**

**Estimated Range of Cost:** High

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Headgate looking downstream



Headgate and diversion dam



Headgate outlet



Point of diversion and river headgate



Point of diversion on Conejos looking downstream



Flume looking upstream

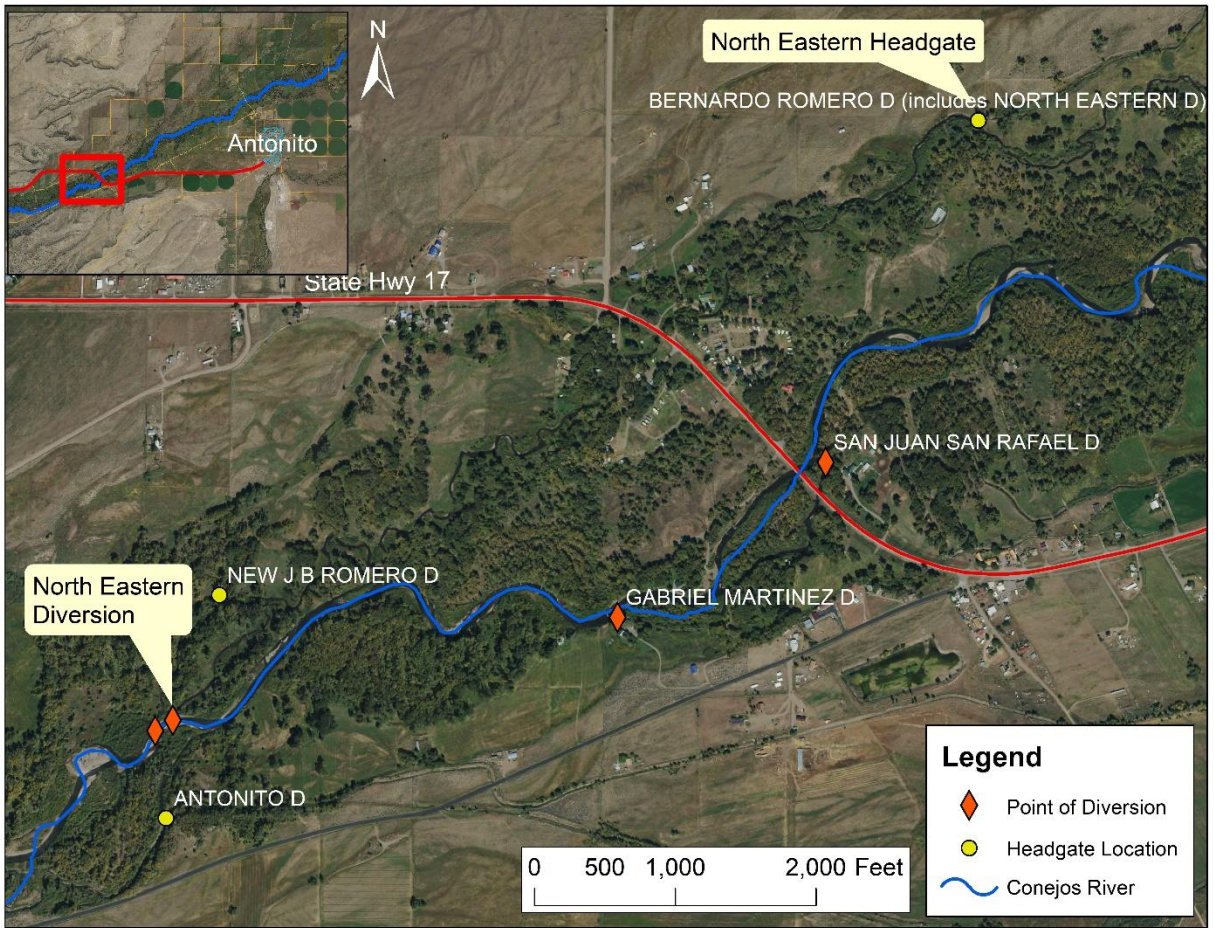


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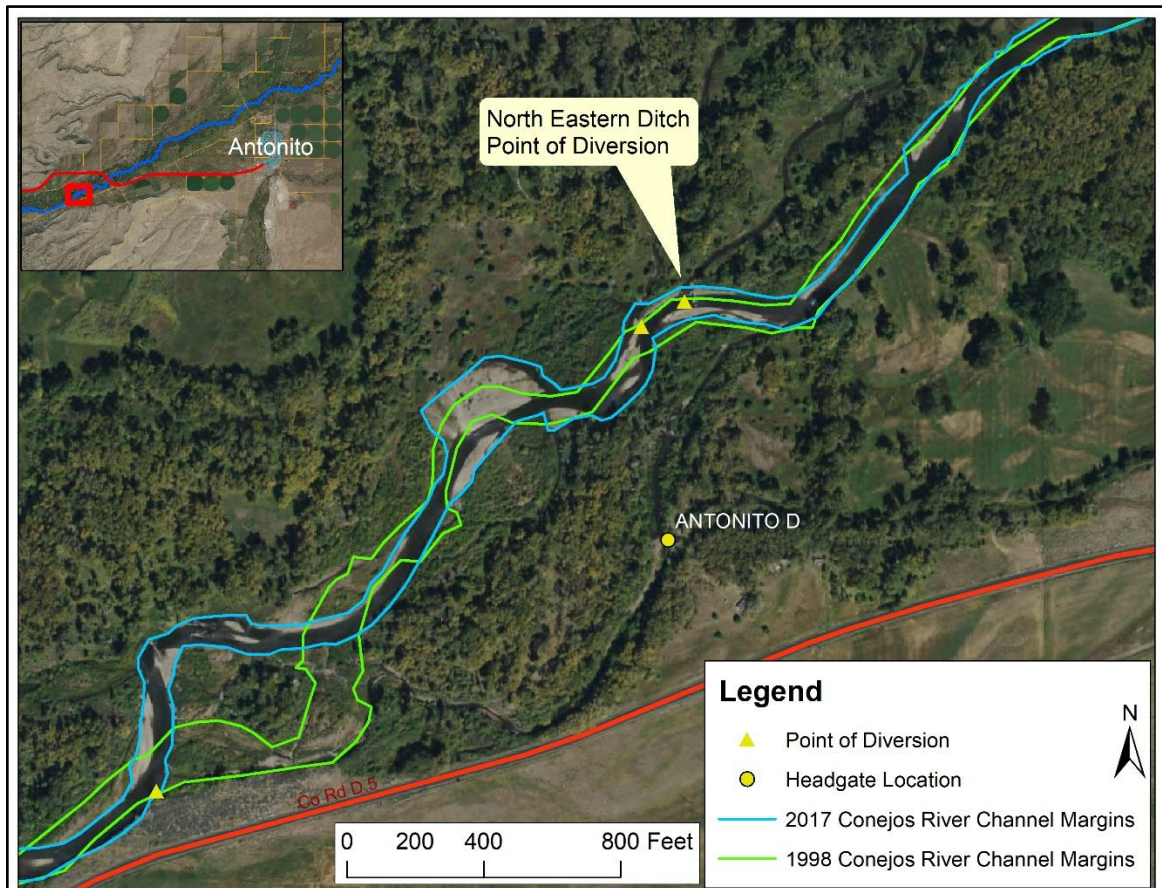
NORTH EASTERN DITCH

PHOTO LOG

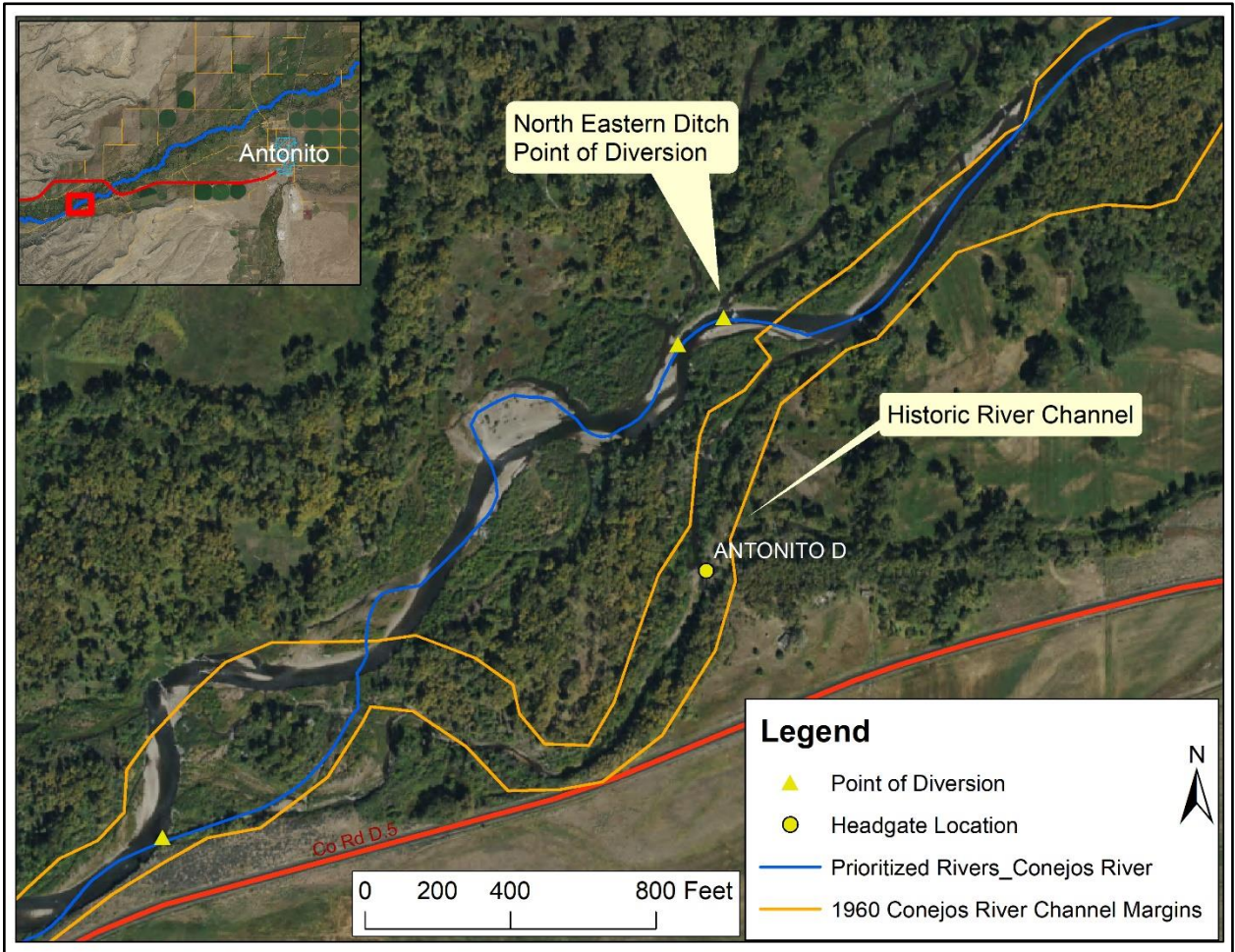
Conejos River Stream  
Management Plan



North Eastern Ditch point of diversion and headgate locations



North Eastern Ditch point of diversion with 1998 and 2017 channel margins overlaid



Map of historic river channel (1960), showing potential for river to migrate and bypass the point of diversion in the future



River channel upstream of diversion (looking upstream)