

CONEJOS RIVER

DIVERSION INFRASTRUCTURE INVENTORY

Structure Name: MECITOS D

Reported By: Daniel Boyes

Date: April 15, 2019

Headgate	Latitude	Longitude
Location:	37.051348	-106.151889

Headgate Type: Manually operated 5' wide steel slide gate

Headgate Condition:	A <input type="checkbox"/>	Diversion and other Conditions:	A <input type="checkbox"/>	River Miles From Rio Grande Confluence (Point of Diversion):	Structure Submerged: Yes <input checked="" type="checkbox"/>
	B <input type="checkbox"/>		B <input type="checkbox"/>		No <input type="checkbox"/>
	C <input type="checkbox"/>		C <input type="checkbox"/>		
	D <input type="checkbox"/>		D <input checked="" type="checkbox"/>	41.04 mi	
	F <input checked="" type="checkbox"/>		F <input type="checkbox"/>		

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

Structure Description: The river channel has undergone significant migration, including meander cutoffs, at the point of diversion and especially downstream of the diversion. A U-shaped rock weir diversion dam directs flow to the feeder channel, located on the north bank of the Conejos River. The feeder channel is approximately 820 meters long and delivers water to the Mecitos Ditch headgate. Adjacent to the headgate, a return flow structure with check boards directs unused water back to the river. This ditch has difficulty accessing its full decree during low flow conditions. During 2019 spring runoff, flood flows caused the banks adjacent to the headgate and return flow structure to fail, resulting in flows bypassing the structure completely (see photos below).

Repair(s) or Improvement(s) Currently Needed: Given the issues identified at this structure, the SMP Technical Advisory Team (TAT) recommends improving or replacing the diversion dam, stabilizing the banks surrounding the main headgate and diversion dam, adjustment capabilities for the feeder channel, and headgate automation. An improved diversion dam would allow the ditch to access water at all flows and adjustment capabilities for the feeder channel could be improved to better administer the structure's water rights and to minimize the impact of high flow events at the headgate. Bank stabilization would mitigate erosion and reduce sediment accumulation in the feeder channel. Headgate automation would improve efficiency and reduce operating needs. Improved adjustment capabilities may include relocating the point of diversion downstream and/or installing a headgate or other control structure on the feeder channel upstream of the headgate. If the diversion is relocated, the current river channel trajectory should be considered. If it is not relocated, the TAT recommends improving it with a stacked rock or similar structure. The TAT also recommends maintaining fish passage to preserve aquatic habitat connectivity in this reach.

Comments: Mecitos Ditch is a priority 26. Flow is measured downstream of the headgate with a Cutthroat flume. The Sanches Ditch is serviced by a secondary feeder channel starting approximately 1400 feet down the Mecitos Ditch feeder channel.

Estimated Range of Cost: High

Headgate looking downstream (pre-runoff)



Headgate looking downstream (post-runoff)



Headgate outlet (pre-2019 runoff)



Headgate outlet (post-2019 runoff)



Diversion dam on mainstem Conejos River (pre-runoff)



Cutthroat flume looking upstream

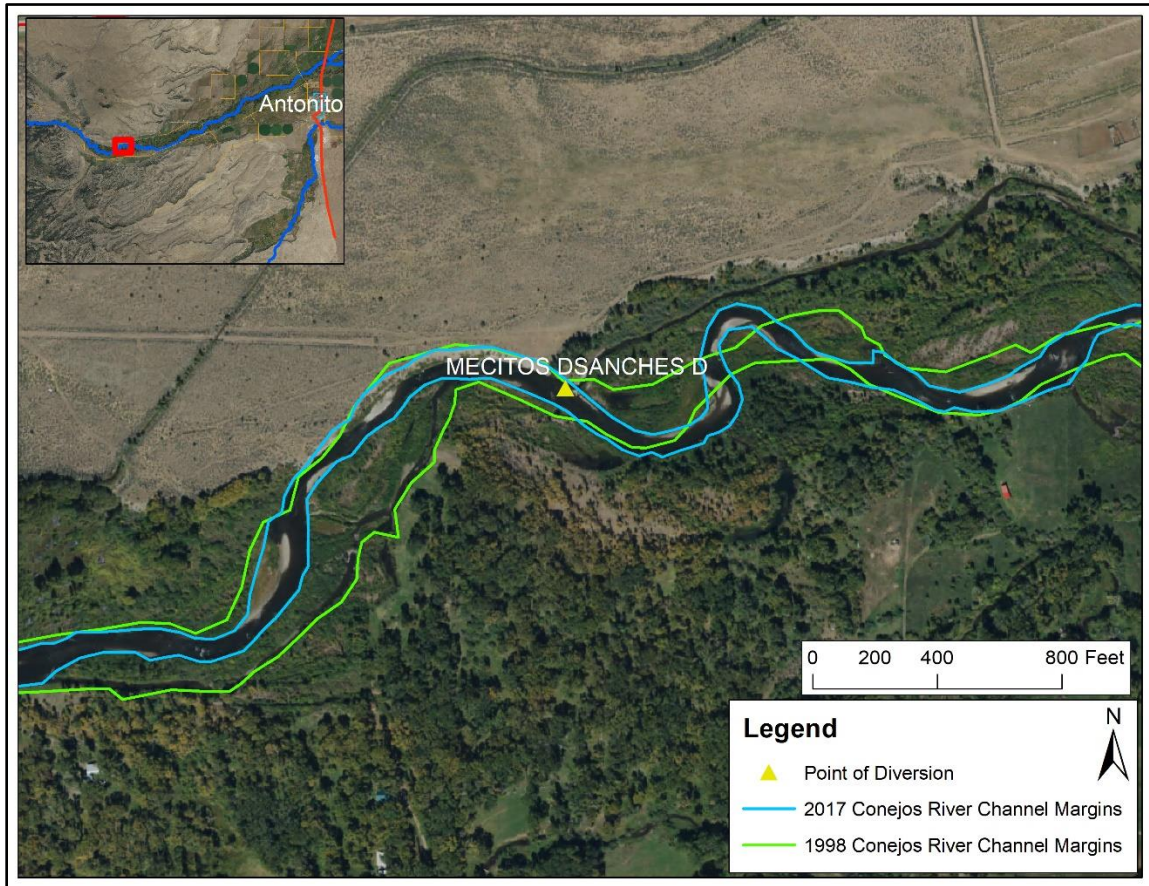


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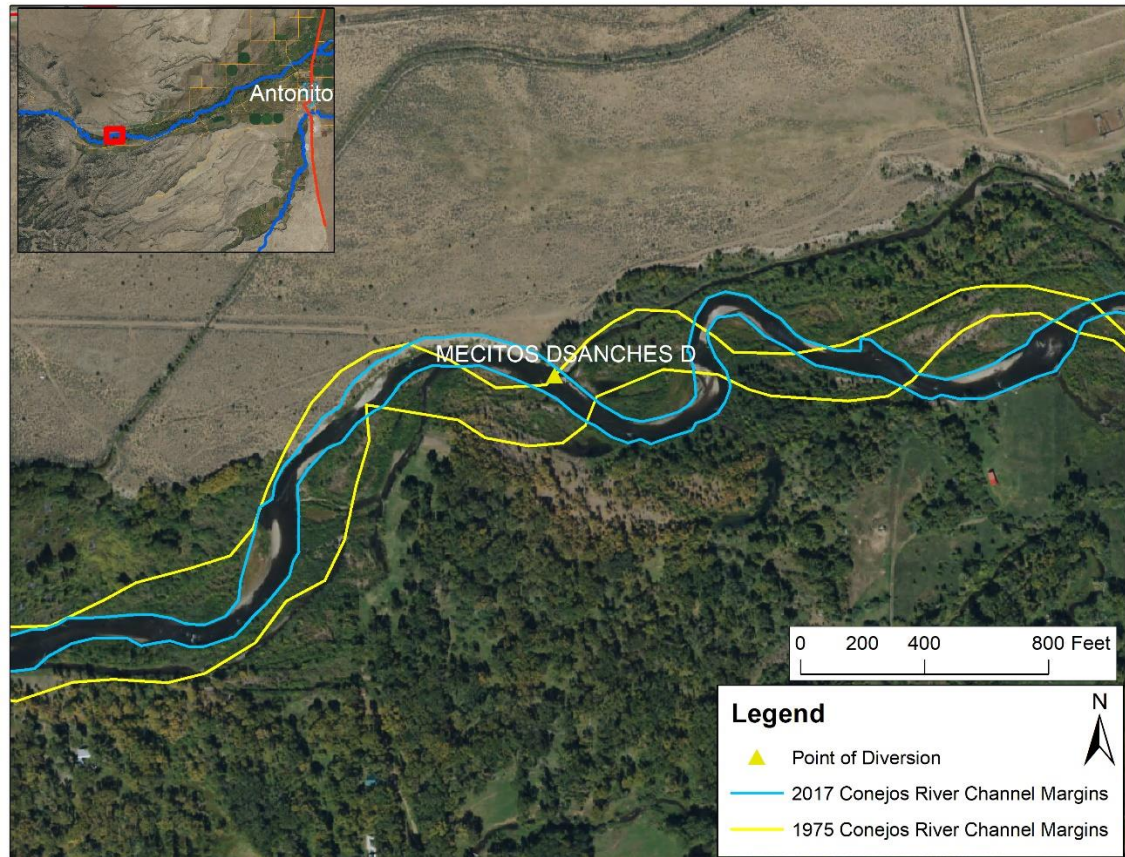
MECITOS DITCH

PHOTO LOG

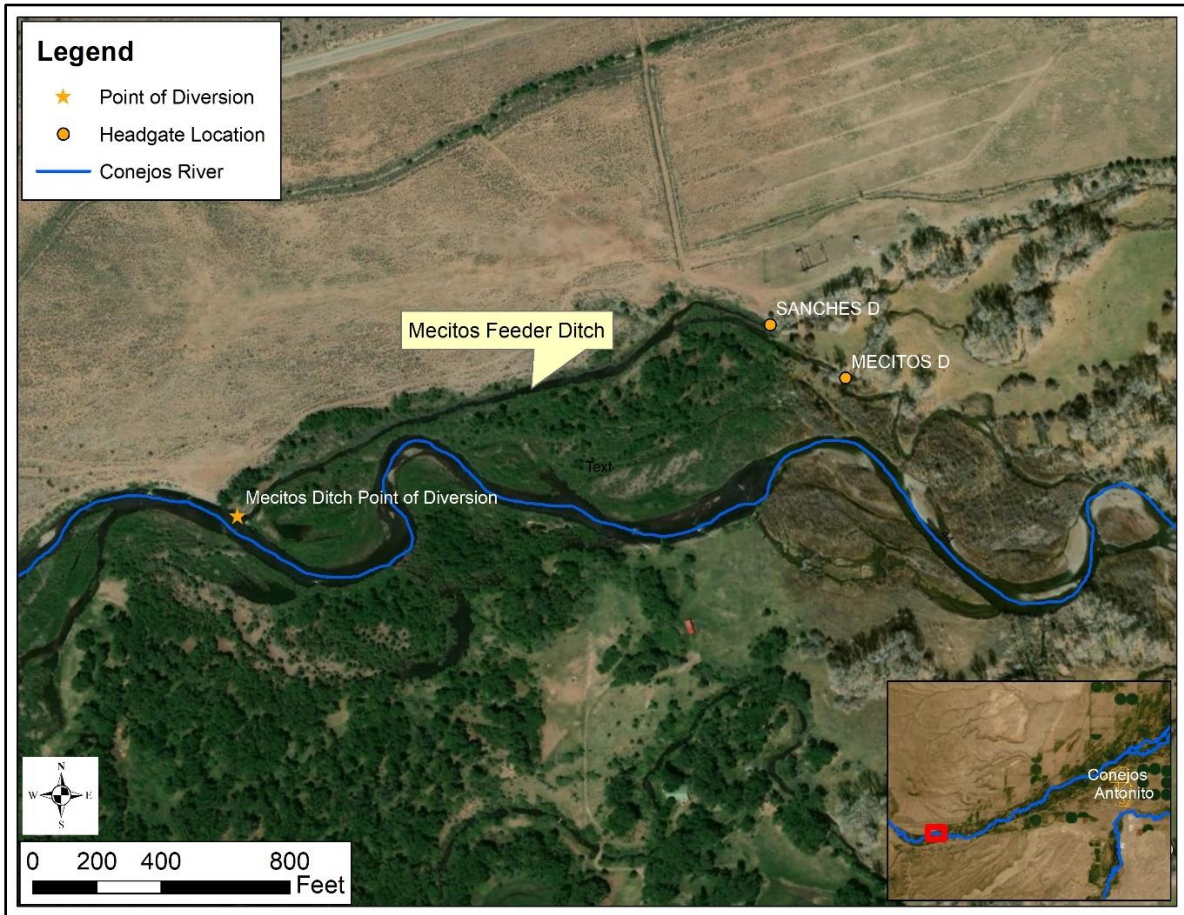
Conejos River Stream Management Plan



Headgate location with river channel margins from 1998 and 2017 overlaid



Headgate location with river channel margins from 1975 and 2017 overlaid



Map of Mecitos Ditch point of diversion and feeder channel.



Headgate and overflow structure pre-runoff 2019 (looking downstream)



Headgate and overflow structure post-runoff 2019 (looking upstream)



Diversion dam on Conejos River (pre-runoff)



Diversion dam on Conejos River (post-runoff)