

# RIO GRANDE DIVERSION INFRASTRUCTURE INVENTORY

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**Structure Name:** SAN LUIS VALLEY CANAL

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**Reported By:** Daniel Boyes

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**Date:** April 10, 2019

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Headgate	Latitude	Longitude
Location:	37.57961667	-106.07425

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**Headgate Type:** Mechanically operated 5' wide steel slide gates (3) and automated 5' wide steel slide gate (1)

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<b>Headgate Condition:</b>	A <input type="checkbox"/>	<b>Diversion and Other Condition:</b>	A- <input checked="" type="checkbox"/>	<b>River Miles from New Mexico State Line (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 checked="" type="checkbox"/>		C <input type="checkbox"/>			
	D <input type="checkbox"/>		D <input type="checkbox"/>	78.01 mi		
	F <input type="checkbox"/>		F <input type="checkbox"/>			

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**Repair(s) or Improvement(s) Completed Since 2006:** This structure's headgate was replaced in Spring 2019 in partnership with the RGHRP, and the ditch company as part of the Five Ditches Project. The headgate was moved about 120 ft closer to the river, and the concrete wing walls from the old headgate were saved. The old headgate will serve as the new measurement device for this structure. In addition, bank stabilization structures were installed and riparian vegetation was planted downstream of the diversion to address erosion on the south bank.

**Structure Description:** This structure is located in the transition zone between two broad meanders in the river. Since 1975, the channel has migrated both upstream and downstream of this structure. The meander immediately upstream of the diversion has been tightening and migrating to the northwest. Just downstream of the diversion, the river is migrating to the southwest, away from the diversion, and the next downstream meander is also tightening. Channel capacity is limited in this part of the river, which has caused the bank upstream of the structure to breach during past high flow events. During the spring 2019 runoff, the bank downstream of the newly installed headgate breached, allowing water to enter the ditch around the headgate (see maps below).

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**Repair(s) or Improvement(s) Currently Needed:** Although the headgate has been repaired, the SMP Technical Advisory Team (TAT) recommends regular monitoring given the potential risk of breaching.

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**Comments:** This ditch includes priorities 270, 357, 362, 1903-22B, 1903-22F, 1903-24D, 1903-24G, 1903-34D, 1903-34H, 1903-37C, 1903-37F, 1903-41C, 1903-45D, 1903-45G, 1903-46D, 1903-49E, 1903-49H, 1903-52D, 1903-57B, and 1916-30.

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**Notes:**

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**Estimated Range of Cost:** Low

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Headgate looking downstream



Headgate outlet



Headgate and surrounding streambanks



Old headgate, which will be used as measurement device



Rio Grande looking downstream of headgate



Flume looking upstream

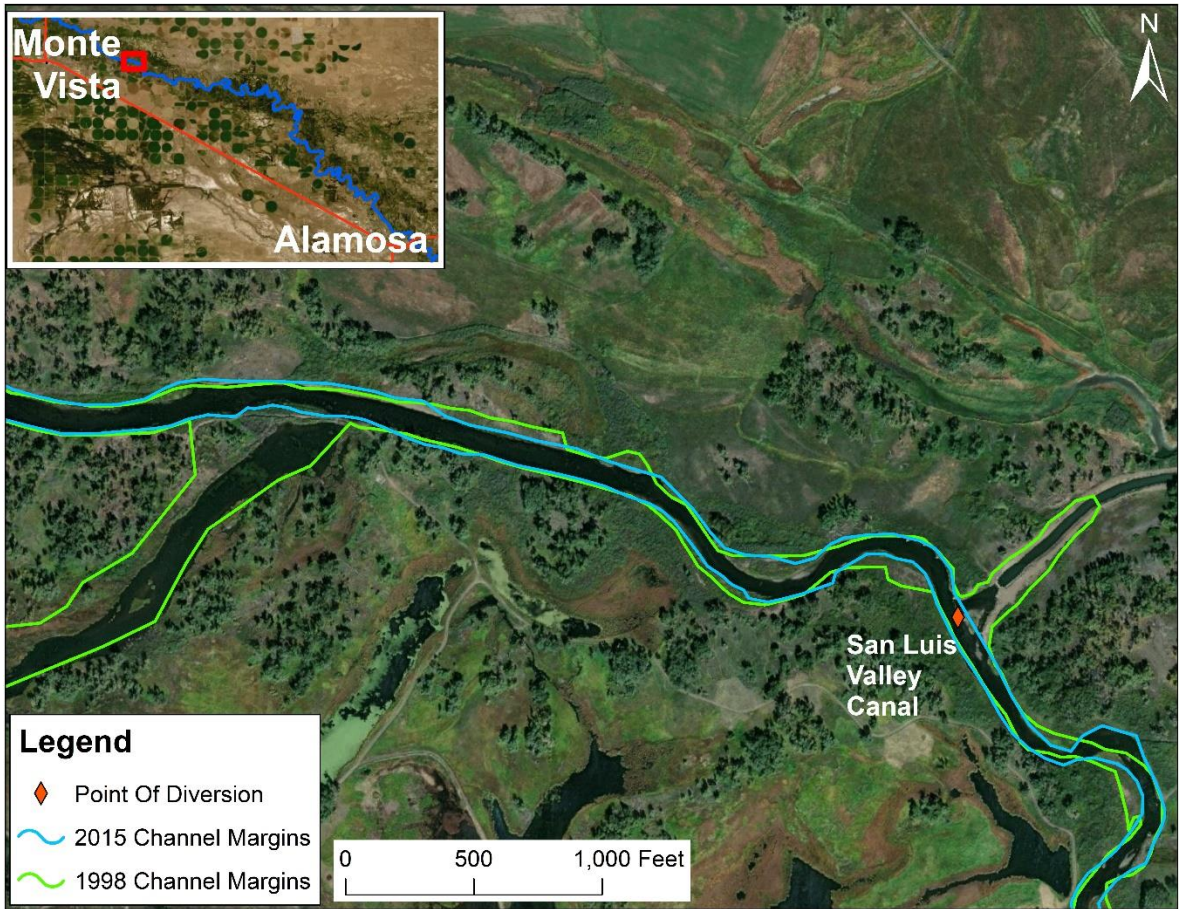


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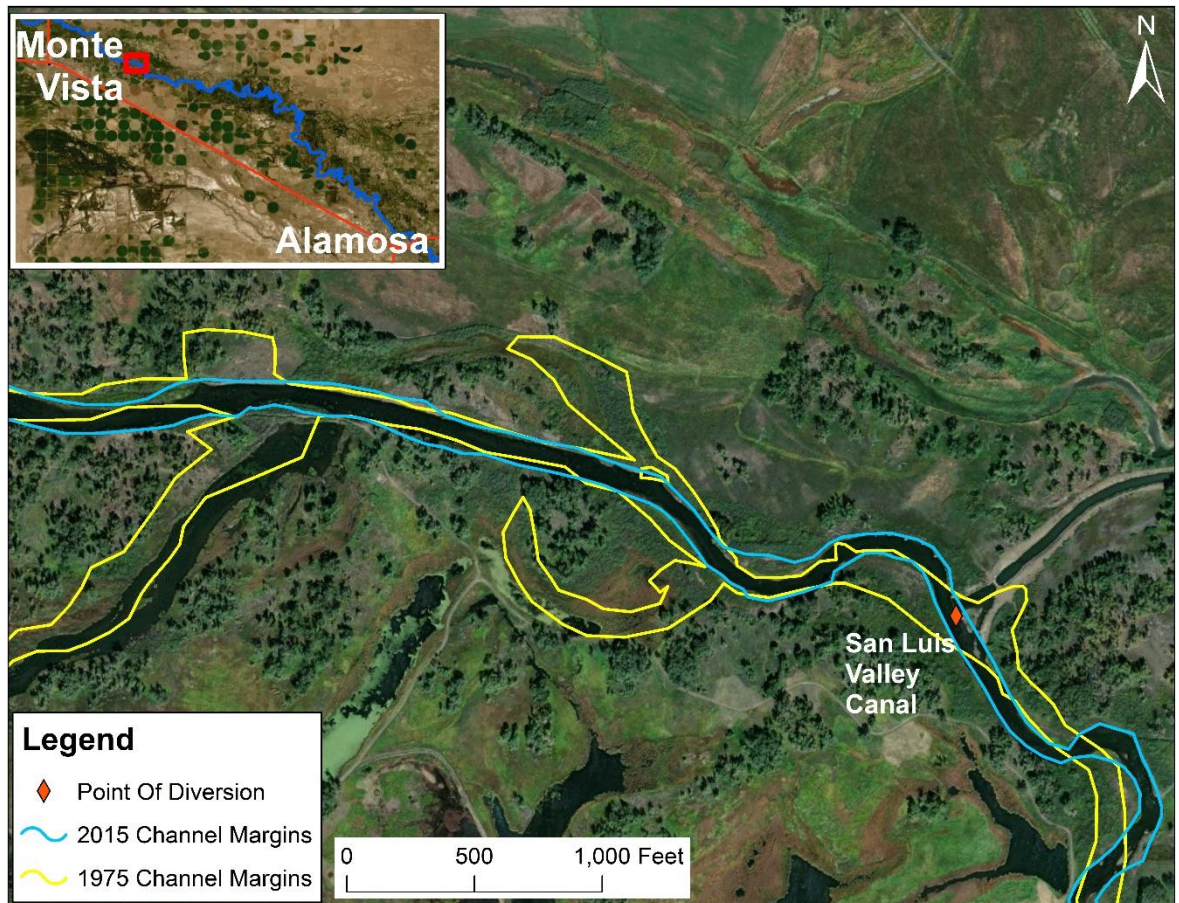
SAN LUIS VALLEY CANAL

PHOTO LOG

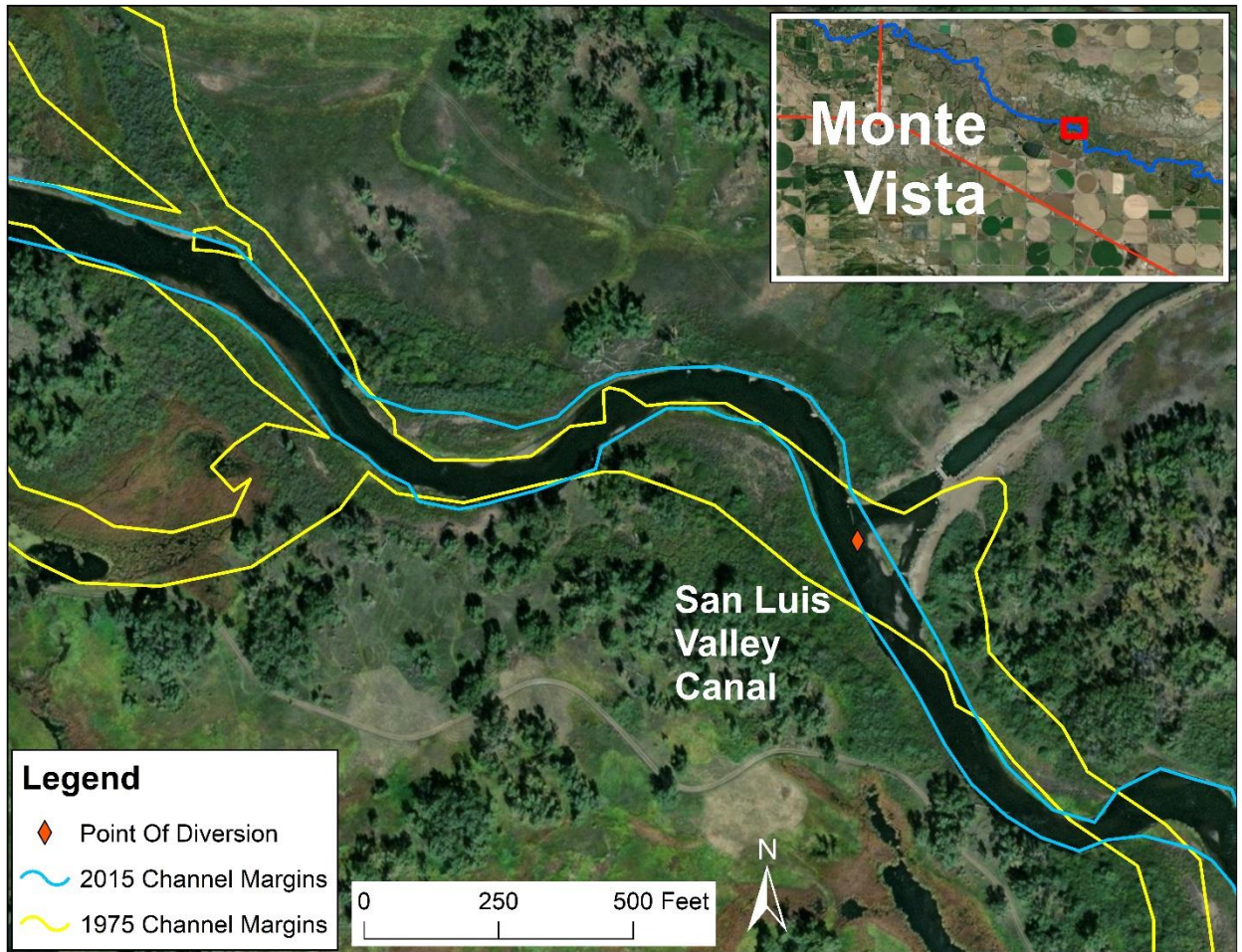
Rio Grande Stream Management Plan



Headgate location with 1998 and 2015 channel margins overlaid



Headgate location with 1975 and 2015 channel margins overlaid



Zoomed map of headgate location with 1975 and 2015 channel margins overlaid.



Aerial photograph of bank failure adjacent to recently installed headgate.  
Photo taken Spring 2019.