

CONEJOS RIVER

DIVERSION INFRASTRUCTURE INVENTORY

Structure Name: SANFORD D

Reported By: Daniel Boyes

Date: April 16, 2019

| Headgate | Latitude | Longitude |
|-----------|-----------|-------------|
| Location: | 37.189771 | -105.898523 |

Headgate Type: Automated 4' wide steel slide gates (2)

| | | | | | | |
|----------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---|-----------------------------|---|
| Headgate Condition: | A <input type="checkbox"/> | Diversion and Other Condition: | A <input type="checkbox"/> | River Miles from North Branch Conejos Terminus (Point of Diversion): | Structure Submerged: | Yes <input checked="" type="checkbox"/> |
| | B <input type="checkbox"/> | | B <input type="checkbox"/> | 0.09 mi | No | <input type="checkbox"/> |
| | C <input checked="" type="checkbox"/> | | C <input type="checkbox"/> | | | |
| | D <input type="checkbox"/> | | D <input checked="" type="checkbox"/> | | | |
| | F <input type="checkbox"/> | | F <input type="checkbox"/> | | | |

Repair(s) or Improvement(s) Completed Since 2006: New automated headgates installed with a new concrete headwall. A new overflow/return flow structure was also installed, but washed out in spring 2019 (see photos below).

Structure Description: A large concrete diversion dam delivers water to an approximately 600 ft feeder channel that then directs river flow to the headgate. The diversion dam includes a 12 ft wide radial sluice gate on the west bank of the river. This ditch can also receive water not used upstream by the Richfield Canal and Ephraim Ditch via the North Branch Conejos River. A return flow culvert returns any unused water to the mainstem Conejos River, just downstream of the confluence with the Rio San Antonio. During 2019 spring runoff, the recently installed overflow culvert washed out, along with the bank north of the headgate, causing flood flows to bypass the headgate and overflow structure. Temporary bank stabilization was completed to prevent flows from bypassing the headgate and the overflow culvert was replaced with a small rock diversion dam.

Repair(s) or Improvement(s) Currently Needed: Given the challenges the ditch company faces, the SMP Technical Advisory Team (TAT) recommends stabilizing the headgate and repairing the return flow structure and flume. Bank stabilization would prevent flood flows from damaging this structure in the future, a repaired return flow structure would be capable of passing flood flows, and a repaired flume improve measurement accuracy.

Comments: This ditch includes priorities 104 and 172. Although the diversion dam on the mainstem Conejos River is in decent condition, the overflow structure and flume are in poor condition, leading to an overall diversion and other condition rating of "D."

Notes:

Estimated Range of Cost: High

Headgate looking downstream (pre runoff)



Headgate looking downstream (post-2019 runoff)



Headgate looking upstream (post-2019 runoff)



Diversion dam looking upstream



Headgate and overflow structure (post-2019 runoff)



Flume looking upstream

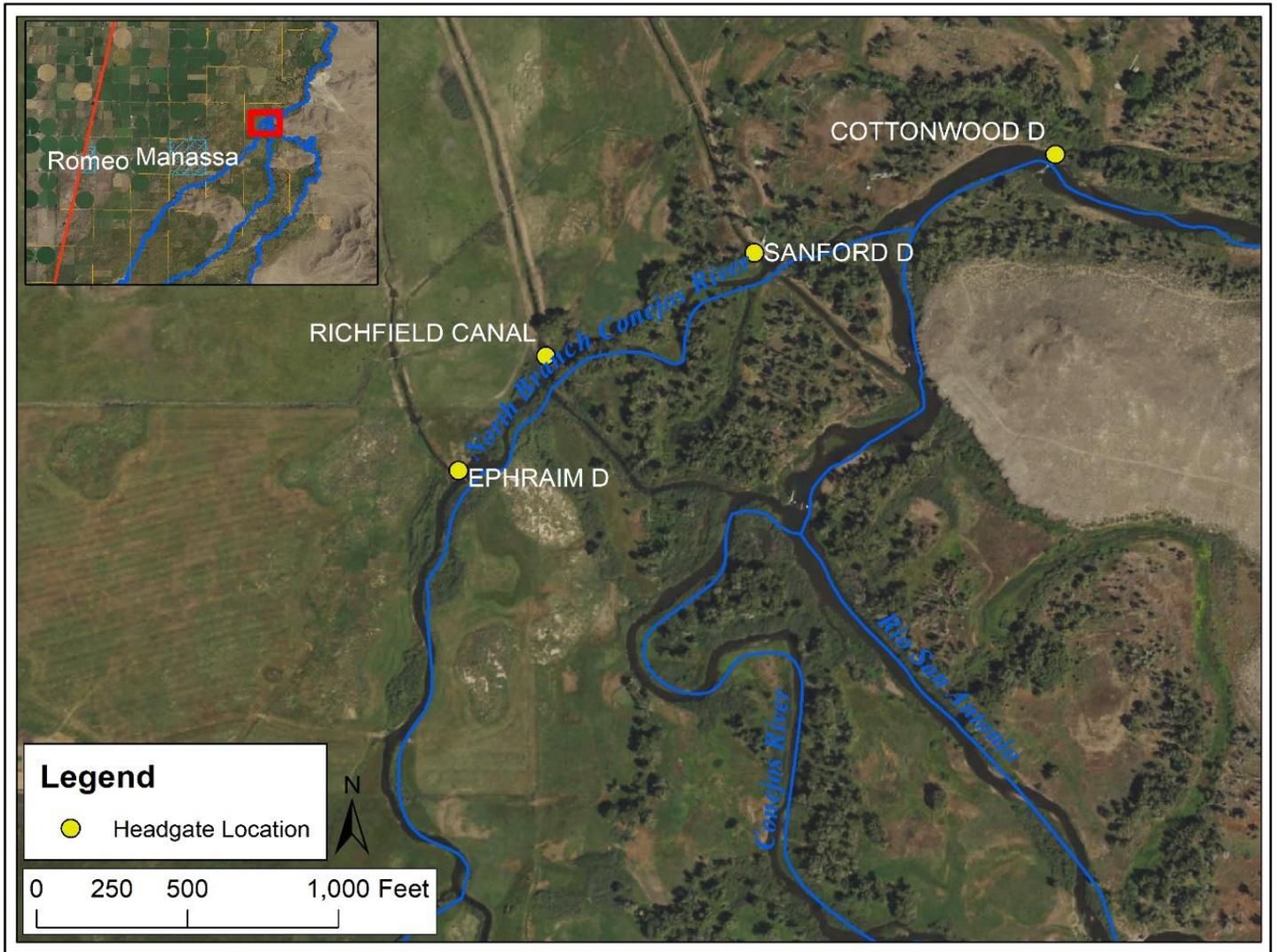


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SANFORD DITCH

PHOTO LOG

Conejos River Stream Management Plan



Sanford Ditch headgate location, feeder ditches, and surrounding stream network.



Overflow culvert (pre-2019 runoff)



Overflow culvert (post-2019 runoff)



Diversion dam at Rio San Antonio Confluence