

The Economics of Water Transfers

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The Economics of Drying up Agriculture

Economics in the San Luis Valley

- Study: The Economic Contribution of Irrigated Cropping in the San Luis Valley
 - How will changes in irrigated cropping alter the economic activity in the local economy?
 - How are these changes distributed among stakeholders in the economy?



IMPLAN Analysis

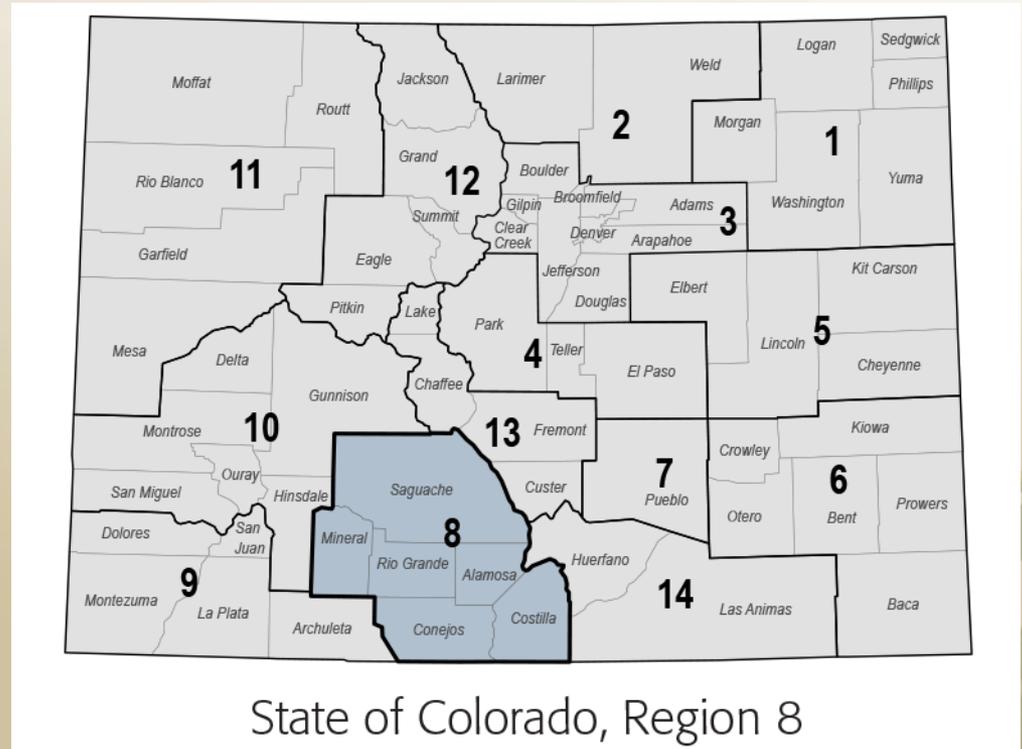
- **1. Direct Effects** – Actual Changes in Crop Sales due to reduction in irrigation
- **2. Indirect Effects** – Linkages in the supply chain: local businesses buying from other local businesses (Expl: Seed Purchases)
- **3. Induced Effects** – Employee household spending from additional income earned

The three of these combined are what we call the multiplier effect



San Luis Valley

- 6 Counties
- 824 Establishments
- 28,149 Employment
- 46,511 Population
- 8,200 sq miles of land
- \$3.32 Billion Output





Creation of a Tool to Evaluate Hypothetical Scenarios

Scenario's could represent different policies

Hypothetical Scenario Goal: Reduce consumptive
by 24,500 acre feet.

Approaches

1. Equal Acre Feet Among Crops
2. All Reductions from Alfalfa
3. Acres Rotate From Alfalfa to Wheat
4. CREP enrollment to reduce CU.





How does drying up ag affect the economy?

- Up to 43 million dollars in total loss in output
- Up to a loss of almost 300 jobs
- Losses not just to agricultural sectors
 - Over \$1.5 million of loss to wholesale
 - Almost half million loss to hospitals





Economics of Instream Flows

Fryingpan River Study

- **Question:** What is the economic impact of recreational fishing on the Fryingpan River & Ruedi Reservoir to the regional economy?
 - Economic Impact is money brought into the Roaring Fork region by anglers living outside the Roaring Fork region
 - How would this increase with more ideal river flows?
- Conducted Angler Survey to determine spending patterns



The “Bottom Line”

- Total Economic impact ~ \$4 Million
 - \$3.8 Million: Lower Fryingpan River
 - \$145,326: Ruedi Reservoir
- Improved Water Management on the Lower Fryingpan has potential to increase positive economic impact to the region



Effect of Fryingpan Flow Levels on the # of Trips taken

How was the water level during your current trip?

-- Just right (78%)

-- Too high (20%)

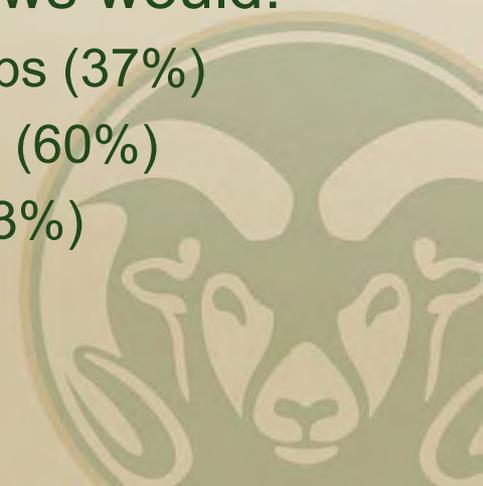
-- Too low (4%)

Winter Water Levels

- Min flows in the winter impact fishing throughout the season through anchor ice
- Higher min winter flows would:
 - Increase trips (46%)
 - Not change (53%)
 - Decrease (1%)

Summer Water Levels

- High summer flows make it difficult to wade in the river
- Moderate flows would:
 - Increase trips (37%)
 - Not change (60%)
 - Decrease (3%)



Fryingpan: Economic Impacts from Improved Water Management

Greater Min Winter Flows:

- 46% of non-locals would take more trips this translates to
 - +15.2 more jobs
 - +\$1,518,694 in output

More moderate summer Flows:

- 37% of non-locals would take more trips this translates to
 - +11.4 jobs more jobs
 - +\$1,139,020 in output



State water board OK's leases for Ruedi Reservoir releases to help endangered fish

By **Heather Sackett** July 20, 2018



BRENT GARDNER-SMITH

A view of Ruedi Reservoir above Basalt. The state water board approved two leases Wednesday, which will result in releases from Ruedi to benefit downstream populations of fish on the Fryingpan and Colorado rivers.

GLENWOOD SPRINGS – The Colorado Water Conservation Board on Wednesday approved two leases of water from Ruedi Reservoir designed to help different types of fish populations in the Colorado and Ervingpan rivers.



Thank you

You can access the full report at:
www.roaringfork.org

