Grand Valley Water Users

Conserved Consumptive Use Pilot Project & Beyond Conserved Consumptive Use Project
Introduction to the GVVUA

Grand Valley Water Users Association

- Largest Service Area of Grand Valley Project
  - GVP includes Grand Valley Water Users Association, Orchard Mesa Irrigation District, Mesa County Irrigation District, and Palisade irrigation District
- 1,700 accounts – Representing thousands of individuals
- 23,500 irrigated acres (Urban, Suburban and Agricultural)
- Pre-1922 water rights
What is “Water Banking”?  

**Water Banking** is the practice of intentionally foregoing diversion or consumptive use of a water resource and “banking” the conserved volume for use at a future date or for a different purpose.

A **Water Bank** often functions to facilitate a temporary transfer of water between entities or between uses.
Why test a water bank in the Grand Valley?

A number of unique circumstances:

- Location
- Grand Valley Power Plant
- Temporary Protections
- Timing
- Management and Operations
- Increased Pressures on Agricultural Water
Why is the GVWUA participating?

Western Slope Ag Water... including ours...is in the bull’s eye!
Why is the GVWUA participating?

- Protection
- Benefit
- A seat at the table for Western Slope agriculture
Why is the GVWUA participating?

**Protection**

- Unacceptable risk associated with regional drought
- Unacceptable probability of a myriad of negative consequences associated with basin-wide drought.
- The Grand Valley Project is a Reclamation project. Reclamation’s role in Upper Basin Drought is unknown.
- Avoidance of Draconian measures if/when supply limitations force the hand of the powers that be.
Why is the GVWUA participating?

**Benefit**

- The GVWUA shareholders have the right to the beneficial use of the water resource for irrigation. If “water banking” represents an opportunity to capitalize in a limited manner on that property right, then it is appropriate that the Association investigate the idea.
- Infrastructure investment through potential revenue stream
Why is the GVWUA participating?

A seat at the table for agricultural water use

- The unintended consequences of decisions made by others affect Western Slope agriculture
- Water may be Western Slope agriculture’s competitive advantage
  - Isolation, limited markets, limited investment
- Agriculture is important for the Western Slope for innumerable reasons, and must serve a leadership role in decisions regarding drought resiliency in the upper basin.
What has the GVWUA been working on leading up to this irrigation season?

- **Feasibility studies**
  - Operational Assessment of System, can it be done? (2015)
  - Infrastructure capacity studies, (2015)

- **Pilot Project Creation**
  - Shareholder interviews, discussions, explanation
  - Program Design and Development (2016)
  - Water rights investigation, negotiation, due diligence (ongoing)
    - Division Engineer, Reclamation, Attorneys, Project Partners
  - Outreach, contracting

- **Compliance, Verification and Next Steps**
  - Program Compliance (current and throughout 2017)
  - Program management (2017)
  - 2018 program creation
  - Project next steps in western Colorado
Determining project feasibility, impact and scale

How much water?

<table>
<thead>
<tr>
<th>Crop Type (NASS)</th>
<th>Acres (&gt;18 acre fields)</th>
<th>CCU (in/yr)</th>
<th>Weighted CCU (in/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>8,452</td>
<td>37.0</td>
<td>26.9</td>
</tr>
<tr>
<td>Corn</td>
<td>1,758</td>
<td>25.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Winter Wheat</td>
<td>1,424</td>
<td>20.3</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total (in/yr)</strong></td>
<td><strong>33.3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (ft/yr)</strong></td>
<td><strong>2.8</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where is it?

When will it get there?

When did it get there?

Why is it there?
Pilot Project Creation

Agronomic activities, contracts, program processes and procedures
Conveyance, protective mechanisms and impacts to other Cameo Call water rights

- In theory we knew how the water was protected and conveyed past our diversion
- In practice it is more complicated
- Negative impacts to other irrigators is a non-starter
Compliance and Verification

• Pre-contracting program compliance

• Verification throughout season
Grand Valley Water Users Association
2017 Conserved Consumptive Use Pilot Project (CCUPP)
2017 CCUPP by the numbers

10 Farmer Cooperators

- Chosen by lottery – 13 potential, 10 selected
- Limited to those Farm Operators actively farming 120+ acres
  - Searching for scalability
  - Short time frame
  - Limited administration budget
- Must commit minimum 60 acres, maximum 240 acres
2017 CCUPP by the numbers

4 Program Activities

<table>
<thead>
<tr>
<th>Program Activity</th>
<th>Criteria</th>
<th>CCU (ac-ft/ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF</td>
<td>No CU throughout Irrigation Season</td>
<td>2.8</td>
</tr>
<tr>
<td>WW</td>
<td>No CU until October 1</td>
<td>2.6</td>
</tr>
<tr>
<td>SS</td>
<td>No CU until September 1</td>
<td>2.3</td>
</tr>
<tr>
<td>AA</td>
<td>No CU until August 1</td>
<td>1.6</td>
</tr>
</tbody>
</table>

• Expressed desire by GVWUA board for flexibility
• Goal of using water bank as a crop rotation and an agronomic tool
• Limited potential CU in WW, SS, AA allowing for less uncertainty of CCU
• Flexibility without requiring technical monitoring of individual fields with innumerable variables
• Continually learning what is needed (no spring pasture option currently)
2017 CCUPP by the numbers

1,252 acres
2017 CCUPP by the numbers

3,178 acre feet

![Graph showing consumptive use by month]

- April: 200 ac-ft
- May: 300 ac-ft
- June: 500 ac-ft
- July: 900 ac-ft
- August: 500 ac-ft
- September: 200 ac-ft

Month
2017 CCUPP by the numbers

$1,039,615 Total Budget

$1,039,615 Total Budget

$725,473 Cooperator payments

$145,095 Infrastructure fund

$169,047 Foregone Revenue and Program Administration
So…what’s next for GVWUA?

Initiating a New Project

Answer questions and address concerns…

- Why just the GVWUA?
- Why just lower valley irrigation?
- Why just agriculture?
- What is the role of the DOI and Reclamation?
- What is the role of municipal users East and West?
Beyond Conserved Consumptive Use Project

- Avoid separation of water from the land

- This Project will investigate approaches to addressing the risk and uncertainty around Colorado River water supplies, which do not require the permanent sale or transfer of existing agricultural water rights.
Thank You

Grand Valley Water Users

Conserved Consumptive Use Pilot Program & Beyond Conserved Consumptive Use Project