Bureau of Reclamation
Established 1902
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Established 1902

Water for 31 million

10 million acres of land

60% of the nation’s vegetables
25% of its fruits and nuts
Why produced water?
Why produced water?

• Potential to offset the water demand from oil and gas
• Beneficial reuse of the water produced during oil and gas extraction
• Promising opportunities to convert produced water to beneficial uses
  • Water markets; work on strategies to increase water supply reliability
Research

• Social sciences to help remove institutional and social barriers to beneficial use of produced water

• Understanding and managing the long-term adverse impacts to lands, groundwater, and ecosystems from produced water discharges and beneficial use

• Pilot and demonstration projects to provide proof of concept from treatment to beneficial use of produced water in key basins
Past (2006-2016)

- Produced Water Workshop
- Various research products
  - Fouling resistant membranes for produced water desalination
  - Beneficial use and treatment of produced water
  - Guidance document for water managers on evaluating water use and production of oil and gas
  - Produced water treatment primer; catalogs water treatment technologies
  - Summary report of current research on produced water treatment

www.usbr.gov/research
Present

• Produced Water Workshops
  • Attending various already scheduled workshops
  • Obtain needs and gaps
  • Include emphasis and identify opportunities in Reclamation research needs

• Continue to fund research and planning in this area
  • Desalination and Water Purification Research Program (DWPR)
    • Grants.gov, BOR-DO-19-F001, research at the laboratory and pilot scale projects
    • Due December 13, 2018
  • WaterSMART: Water Marketing Strategy Grants
    • Jan/Feb 2019
Water Marketing Strategy Grants

• Water marketing refers to water rights transactions, or agreements governing water rights, water use, or water management, undertaken in accordance with state and Federal laws, between willing participants.

• Examples:
  • Voluntary lease, sale or exchange of water or water rights
  • Agreements governing groundwater recharge and storage
  • Non-diversion agreements
  • Dry-year options
Water Marketing Strategy Grants – *Project Requirements*

- Projects must address 3 required elements that compose a water marketing strategy
- One of the required elements is a water marketing strategy
- Additional requirements if selected for funding
Water Marketing Strategy Grants – Project Eligibility

**Eligible Applicants:**
- States, Tribes, irrigation districts, water districts, or other organizations with water or power delivery authority

**Eligible Projects:**
- Development of a water marketing strategy to establish or expand current water markets or water marketing activities

**Ineligible Applicants:**
- Federal government entities
- Institutes of higher education
- Individuals
- 501(c)4 and 501(c)6 organizations

**Ineligible Projects:**
- Other types of planning studies
- Construction activities
- Water conservation projects
- OM&R
- Title XVI Projects
- Water purchases
- Administrative construction costs
- On-farm improvement projects
## Water Marketing Strategy Grants – Award Information

<table>
<thead>
<tr>
<th>Funding Group I:</th>
<th>Funding Group II:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Up to $200,000 in Federal funds</td>
<td>• Up to $400,000 in Federal funds</td>
</tr>
<tr>
<td>• Completed within 2 years</td>
<td>• Completed within 3 years</td>
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<tr>
<td>• Smaller project scope</td>
<td>• Large project scope</td>
</tr>
<tr>
<td>• Can be less complex</td>
<td>• More partners</td>
</tr>
<tr>
<td>• Few partners involved</td>
<td>• Larger geographic area</td>
</tr>
<tr>
<td>• Smaller geographic area</td>
<td>• More complex water markets</td>
</tr>
<tr>
<td>• Builds on prior work</td>
<td></td>
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</tbody>
</table>

*50% or greater non-Federal cost share is required regardless of Funding Group*
3 Elements of Water Marketing Strategy

- Outreach & Partnership Building
  - Partners
  - Stakeholders
  - Public Communication

- Scoping & Planning Activities
  - Financial/Economic Analysis
  - Analyzing Issues
  - Assess Demands

- Water Marketing Strategy
  - Report
  - Proposed Approach
  - Meet the 5 Requirements
There are 5 strategy requirements that apply to the development of the water marketing strategy.

1. Implementation Plan
   - How the water market/water marketing activities will be implemented.

2. Legal Framework
   - Description of the legal framework for the water market/marketing activities.

3. Monitoring
   - How water marketing activities will be monitored.

4. Decision Support Tools
   - Development of decision support tools.

5. Pilot Activities
   - Descriptions of pilot activities and outcomes of activities.
The New Cache La Poudre Irrigating Company, Inc., Colorado

- Partnering with Ducks Unlimited to develop a water marketing strategy that facilitates the temporary transfers of agricultural water to meet the demands of municipalities, rural economic development, and wildlife habitat
- Emphasizes temporary water leases over permanent transfers to sustain Front Range agriculture while meeting other needs during shortages
- Multiple stakeholders and collaborators
Central Oregon Irrigation District, Redmond, Oregon

• Developing a water transaction program to facilitate the trading of water between irrigation districts and for environmental flows on the Deschutes River

• The Oregon Spotted Frog has accelerated the need to restore flows in the Deschutes River

• Increases the reliability for irrigators (especially Junior users), protects flows in the river, and meets the needs of both agricultural users and municipalities
Future

• How to keep strengthening this area to benefit all
• Exploring an update to Reclamation’s produced water workshop
• **Seek partnerships to address needs and gaps**
  • Prize Competition
  • Research
  • Strategy and Planning
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