

# RECLAMATION

*Managing Water in the West*

## **Advanced Water Treatment Sustainable Water Resources Roundtable**

**Yuliana Porrás-Mendoza  
Research & Development Office**

**July 19, 2016**



U.S. Department of the Interior  
Bureau of Reclamation



- Established 1902
- 17 Western States
- Construction of dams, power plants, and canals

Manages, develops, and protects water and related resources in an environmentally and economically sound manner in the interest of the American public

[www.usbr.gov](http://www.usbr.gov)

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# Research & Development Office

- **Science & Technology Program (S&T)**
  - Reclamation researchers
  - Various research topic areas
- **Desalination and Water Purification Research Program (DWPR)**
  - External funding
  - Brackish Groundwater National Desalination Research Facility (BGNDRF); Alamogordo, NM
- **Other Reclamation Facilities**
  - Water Quality Improvement Center (WQIC); Yuma, AZ
  - Denver Water Lab; Denver, CO

# S&T Program

- Reclamation-wide competitive, merit-based applied research and development
- Reclamation employees are the principal investigators
  - Partners: stakeholders, universities, non-profit organizations, private sector, other local/state/federal entities

[www.usbr.gov/research/programs/science-technology](http://www.usbr.gov/research/programs/science-technology)

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# S&T Program

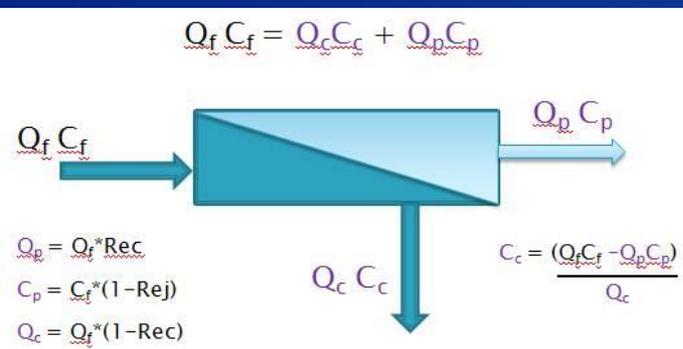
## Advanced water treatment research

- **Produced Water**

- Summary of Current Research on Produced Water Treatment; Dr. Katie Guerra, [kguerra@usbr.gov](mailto:kguerra@usbr.gov)

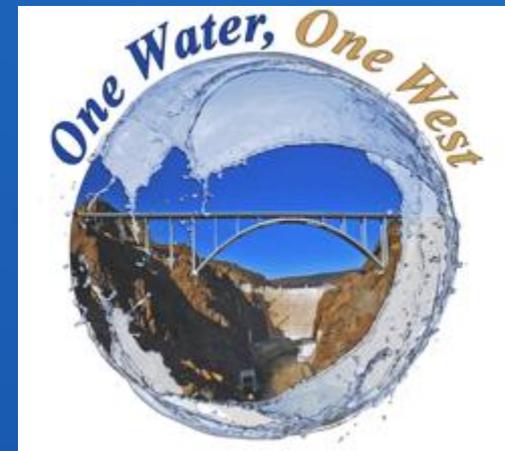
- **Concentrate Management**

- Toolbox; Saied Delagah, [sdelagah@usbr.gov](mailto:sdelagah@usbr.gov)
- Partners: North Texas Metropolitan Water District and Eastern Municipal Water District



# S&T Program

- **Pitch to Pilot Funding Opportunity**
  - New cooperative agreement competition
  - Seeking innovative pilot scale water treatment technologies and processes for inland desalination
  - Feature a unique competition approach designed to accelerate proposal review and selection
  - Deadline to apply July 27, 2016
  - Award up to \$100,000 per project for up to 3 projects



Bridging  
Reclamation's  
Clean Water  
Technologies  
for Today and  
Tomorrow

[www.usbr.gov/research/programs/science-technology/pitchtopilot](http://www.usbr.gov/research/programs/science-technology/pitchtopilot)

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# S&T Program



- **Prize Competitions – Water Prize Competitions**
  - **Aquatic Ecosystem Restoration**
    - Sediment management
    - Recovering/Protecting threatened and endangered aquatic species
  - **Infrastructure Sustainability**
    - Water storage and delivery infrastructure
    - Hydropower infrastructure
  - **Water Availability**
    - Creating useable water supplies through water treatment
    - Water supply forecasting and management

[www.usbr.gov/research/challenges](http://www.usbr.gov/research/challenges)

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# DWPR Program

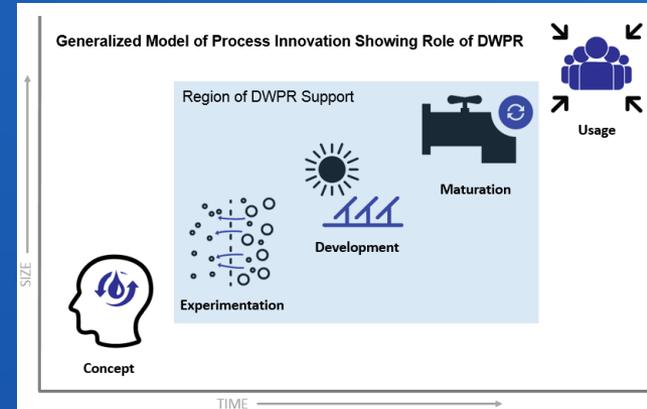
- **Brackish Groundwater National Desalination Research Facility – Alamogordo, NM**
  - Focal point for developing and testing of technologies for the desalination of brackish and impaired water found in the inland states
  - Opened on August 16, 2007
  - Clients: federal/state/local agencies, academia, private sector, research organizations

[www.usbr.gov/research/bgndrf](http://www.usbr.gov/research/bgndrf)



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# DWPR Program

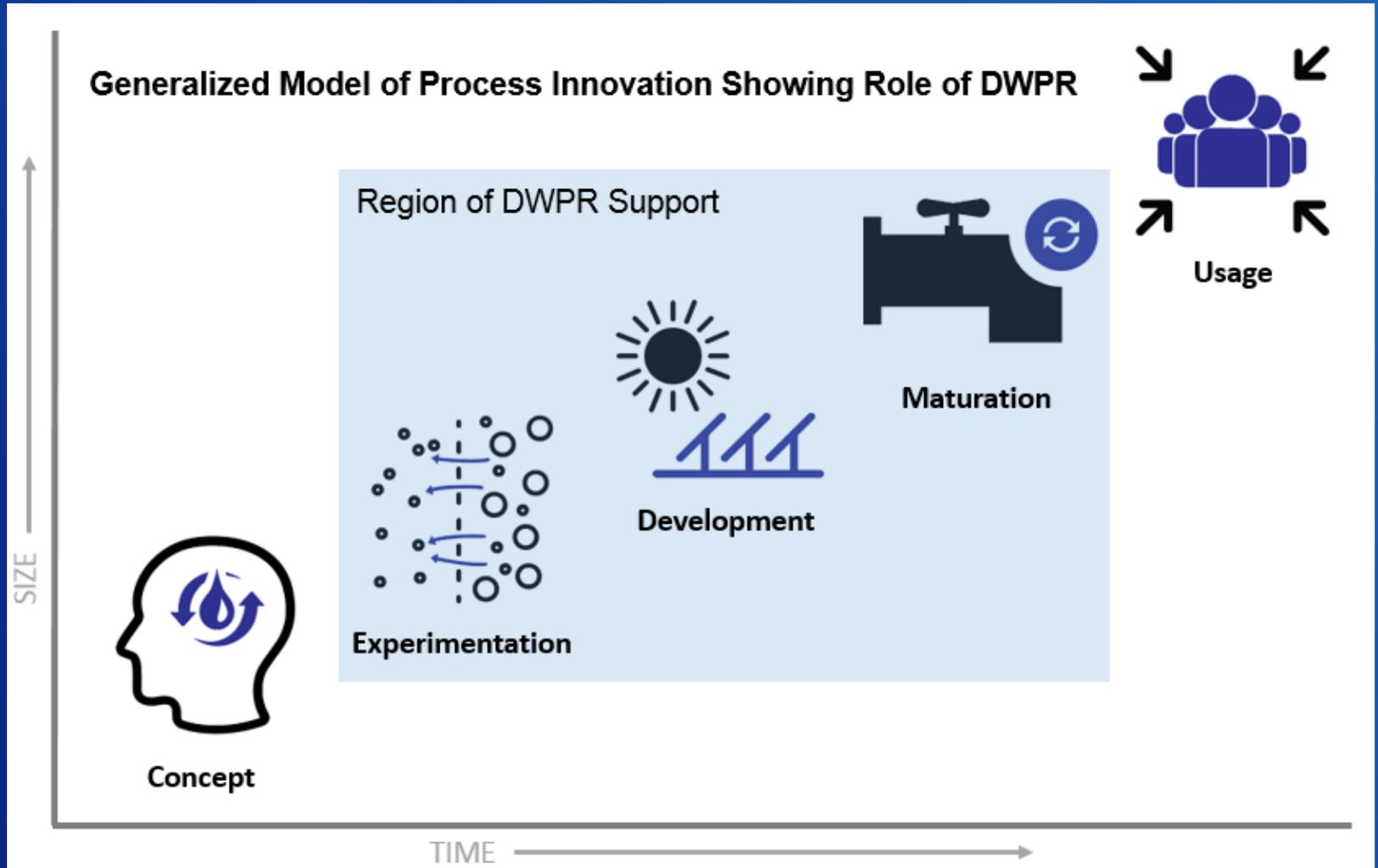


- Program focuses on funding research to augment water supplies
  - Focus on reducing cost, energy, and environmental impacts
- Three funding opportunity announcements
  - Laboratory studies (up to \$150k per project; 13 months)
  - Pilot scale (up to \$400k per project; 24 months)
  - Demonstration scale (up to \$1.5m per project; 36 months)

[www.usbr.gov/research/programs/desalination](http://www.usbr.gov/research/programs/desalination)

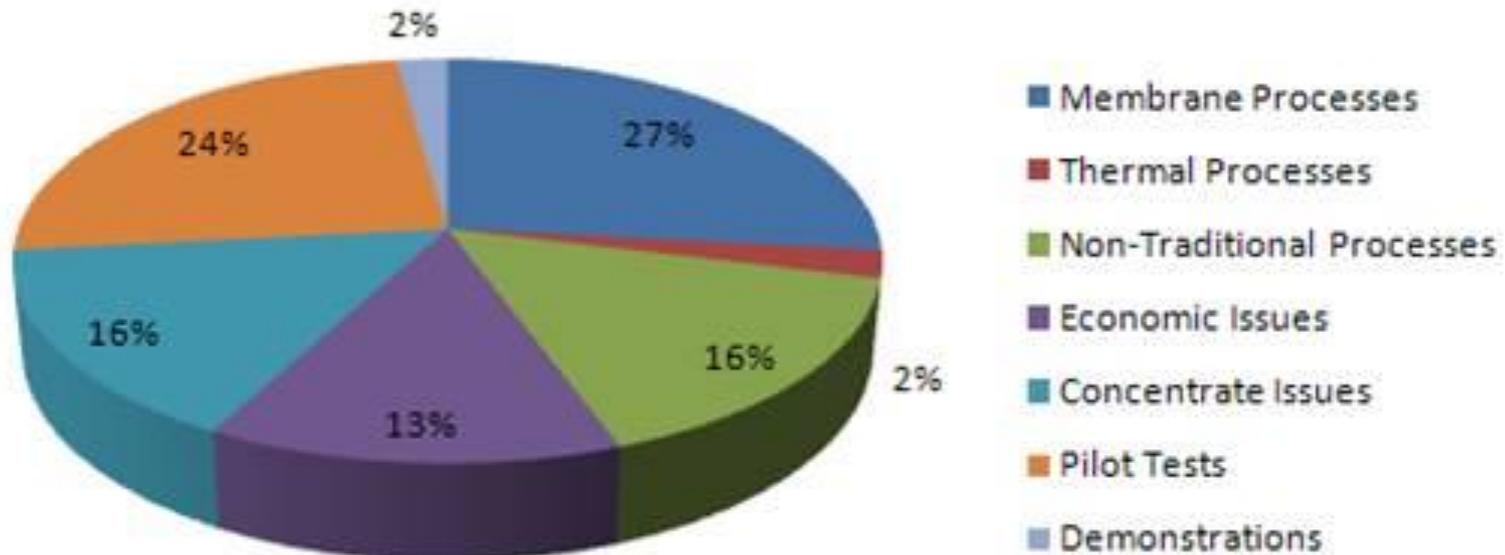
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# DWPR Program



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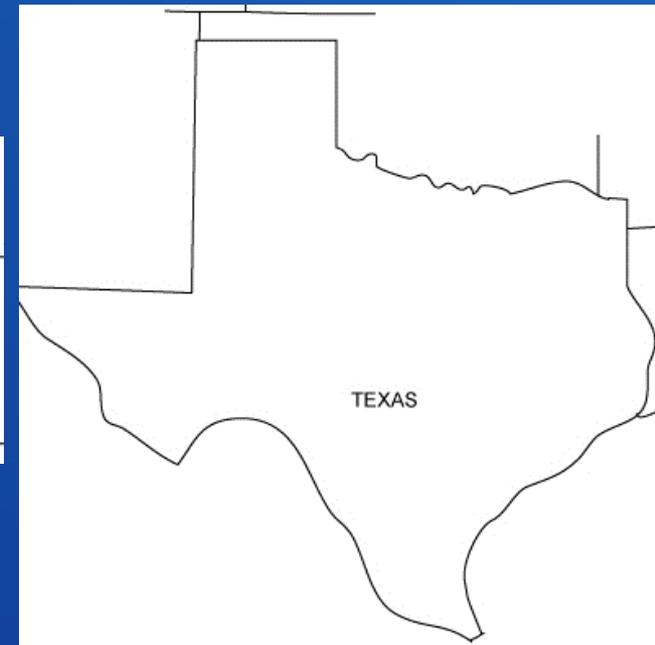
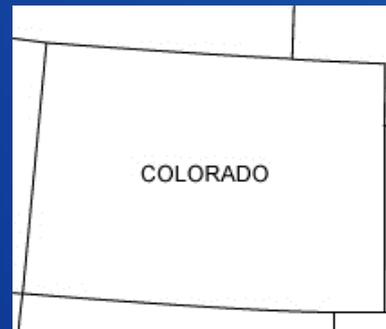
# DWPR Program



- Resource recovery
- Wastewater treatment
- Energy optimization
- Technology optimization

# DWPR Program FY 16

- Selected 12 projects for a total of \$1.8 million
- Laboratory Studies, 9 projects
- Pilot Projects, 3 projects



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# Questions



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