

Colorado River Citizens Forum  
Yuma, AZ  
March 8, 2010  
**\*Tentative Meeting Notes**

Board Members in attendance:

Elston Grubaugh	Sam Spiller
Marcos Moore	Miguel Figueroa
Wade Noble	Kevin Eatherly

Board Members absent:

Stella Mendoza  
Nancy Wright  
Bill Plummer

USIBWC Staff in attendance:

Diane Hinkle

MXIBWC Staff in attendance:

Francisco Bernal

❖ 14 Members of the public in attendance

Yuma Desalting Plant Activities Update

Jennifer McCloskey, Area Manager, Yuma Area Office, Bureau of Reclamation, gave a presentation on this topic.

- Colorado River drought
  - We are in an unprecedented drought
  - Average Colorado River flow since calendar year 2000 is the lowest ten-year average in 100 years of record keeping
  - On March 4, 2010 the elevation of Lake Mead was 1,102.76 feet
  - Lake Mead is at 45% of capacity
  - This elevation remains nearly 28 feet above the trigger for shortage declaration under the Colorado River Interim Guidelines for Lower Basin Shortages of December 2007
  
- Yuma Desalting Plant
  - 72 million gallons per day (MGD) plant as currently configured
  - Conventional pretreatment and cellulose acetate reverse osmosis membranes
  - Construction largely completed in 1992
  - Built to desalinate the agricultural drainage/bypass flow
  - Each gallon recovered by the plant makes a gallon available in system storage for U.S. use
  - Demonstration Run was conducted in 2007
  
- New water supply
  - Drought conditions on the Colorado River have placed an increasing demand on system storage
  - California is the hardest hit and in the greatest need for water
  - The lower Basin States view the Yuma Desalting Plant (YDP) and recovery of the bypass flow water as a potential means to extend existing water supplies
  - In 2008 a group of Municipal Utilities approached Reclamation with a request to operate the YDP
    - Metropolitan Water District of Southern California
    - Southern Nevada Water Authority
    - Central Arizona Water Conservation District
  - A Pilot Run was contemplated as a means to gather data to support long-term decision making

- Characteristics of the Pilot Run
  - Operate at 1/3 capacity for 365 days within a 12 to 18 month period
    - 1/3 capacity reflects actual design
    - 365 days covers seasonal variation and provides adequate time to achieve the purpose of the run
  - The purpose of the Pilot Run is to:
    - Gather performance and cost data
    - Determine whether any additional corrective action to the plant is necessary for long-term operation
    - Test changes and corrections which have already been implemented
  
- Water recovered
  - Approximately 29,000 acre feet of water will be recovered
    - The plant sits adjacent to the Colorado River and is about 4000 feet upstream of the border with Mexico
  - Municipal Utilities will receive water credits in proportion to their capital contributions and water recovered during the Pilot Run.
  - Pilot Run total cost is about \$23.2 million:
    - \$6.6 million for preparation
    - \$16.6 for operations & maintenance
  
- Current status:
  - Conveying water to the Cienega during the Pilot Run is part of a binational agreement
  - Environmental Assessment and Finding of No Significant Impact are complete
  - Necessary agreements for the Pilot Run have been executed
  - Discharge permit for the plant has been issued
  - Chemicals have been acquired
  - Supplemental personnel have completed necessary training and certification
  - Membrane transport from cold storage is underway
  - Equipment testing and repair is also underway
  - Pilot Run is on schedule to commence in May 2010
  
- Discharge permit
  - Permit application was submitted to the Arizona Department of Environmental Quality (ADEQ) in March 2009
    - Five months of consultations resulted in the draft permit being received by Reclamation in August 2009
    - Final permit was received in January 2010
  - Permit is renewable every 5 years
  - Permit negotiations went smoothly with the ADEQ
  - ADEQ's emphasis was on removal of residual chloramines. Granted mixing zone for pH, boron and Whole Effluent Toxicity
  - Reclamation did make a strategic decision prior to submitting its permit application:
    - Untreated bypass flow will be added to the Colorado River upstream of the YDP and help to protect the current regulatory treatment of agricultural return flow water in Arizona
  
- Anticipated operating issues
  - Plant's aluminum bronze piping will leak
  - Use of 20-year old membranes is uncharted territory for the industry
  
- Aluminum bronze piping

- YDP contains over 11,000 linear feet of aluminum bronze piping.
    - Varies from 2 to 78 inches in diameter
    - 83% of the piping is high pressure
  - Nine leaks occurred during the Demonstration Run. Six were successfully repaired.
  - Thorough assessment performed:
    - Metallurgical tests, ultrasonic thickness gauging, shear wave flaw detection, x-rays, physical inspection, and coupon testing
    - Long-term sustained operation of the plant would require HP piping replacement
  - Numerous risk mitigation measures being implemented for the Pilot Run:
    - Selected segment replacement, controlled access zone, specialized start-up procedure, video cameras, etc.
- Water Quality Improvement Center – part of the YDP complex
- Advanced water treatment research facility
  - Dual focus – YDP and Technology Transfer
  - Cooperative Research and Development Agreements (CRADA) available to State and municipal governments, academia, and the private sector
- Current CRADA (Cooperative Research and Development Agreements )
- Largest ever undertaken by the Department of the Interior
  - Separate action from the Pilot Run
  - Funded by Municipal Utility partners
  - Kick-off in May 2010
  - Test alternative configurations of the YDP:
    - Pre-treatment
    - Membranes
    - Alternative feed water
  - Pilot Run results + CRADA results = Thorough YDP perspective
- Upcoming Event / YDP Tours:
- In April Reclamation will be hosting an event to celebrate the Pilot Run of the Yuma Desalting Plant and the completion of the Drop 2 Reservoir
  - In addition, regular tours of the plant can be arranged year round
  - If you're interested in additional information about the event or scheduling a tour contact Mr. Doug Hendrix at [dhendrix@usbr.gov](mailto:dhendrix@usbr.gov) or Ms. June Wolfe at [jwolfe@usbr.gov](mailto:jwolfe@usbr.gov)

Q: Will there be Salinity Changes?

A: Salinity will improve, there is no scrutiny in determining that the water is less saline.

Q: Has Minute 316 been signed for the binational agreement to convey water to the Cienega in Mexico?

A: No, there are still improvements to the agreement which need to be formalized before it is signed and implemented.

#### Yuma Area Office American Recovery and Reinvestment Act Projects

Maria Ramirez, Assistant Area Manager, Yuma Area Office, Bureau of Reclamation, gave a presentation on this topic.

- American Recovery & Reinvestment Act (ARRA) Projects
  - 14 Projects
    - Nine Awarded (one completed)
    - Five Pending

- \$41.5M
  - \$28.0M Obligated (67%)

❖ AWARDED ARRA PROJECTS

Drainage Pump Outlet Channel (DPOC)  
 Imperial Dam and Laguna Basin  
 Senator Wash Pump Replacement  
 Yuma Area Office & Levee Road Paving  
 MOD Structure at 0+00  
 Yuma Mesa Conduit  
 Lower Cibola Bridge Deck Replacement  
 Groundwater Wells Re-drilling  
 Stockpile Fencing  
 MODE III  
 New Dredge  
 Replace Silt Density Instruments  
 Seismic Retrofit  
 North Shore Clean-up

Yuma Wetlands Project

C. Kevin Eatherly, Deputy Director, Yuma Crossing National Heritage Area, gave a presentation on this topic.

Project Accomplishments

- Completion of 140 acres of restoration in 2009
- Completion of Yuma East Wetlands nature park
- First public trail in wetlands opened in January 2009
- Over 350 acres restoration completed to date
- At the moment over 60 people employed by the project
- Farming community utilized in project for expertise and construction
- Over 8 million dollars in economic impact over the last 9 years in Yuma community
- Wildlife population recovering rapidly

Q: Are there any ramadas, picnic areas?

A: No, the city has Gateway Park, Riverside Park and Territorial Prison which is located in the City.

Q: How much will maintenance of this Project cost?

A: Operations and maintenance for 300-400 acres runs approximately \$1,000 per acre, this includes 1/3 or the restored area which is Quechan land.

Public Comment/Suggested Future Agenda Items

Next meeting to be held in Imperial Valley, date and location to be determined

- Update on the New River.

Thank you to all the presenters for their presentations.

\*Meeting notes are tentative and summarize in draft the contents and discussion of Citizens Forum Meetings. While these notes are intended to provide a general overview of Citizens Forum Meetings, they may not necessarily be accurate or complete, and may not be representative of USIBWC policy or positions.