Recovery Planning Advisory Group (RPAG)

Banking Water Now for Arizona's Future

Kick-off Meeting, January 17, 2018
Agenda – Kick-off Meeting 1/17/2018

• Intro & Welcome
• Objectives of RPAG
• Process Overview
• Key Questions
• Anticipated Topics – Schedule
• Shortage Strategies
• Joint Plan Review
• Next Meeting (March)
Objectives of RPAG

• Provide greater planning clarity
• Ensure stakeholders’ perspectives have been fully considered as AWBA, ADWR and CAP update & refine implementation concepts
• Incorporate covered topics in an Addendum to the 2014 Joint Recovery Plan by the end 2018
Process Overview

• Meet every other month
  - With breakout groups possible between meetings
• Anticipate year-long process
• Address key questions
Key Questions

• When will recovery occur?
• How much recovery capacity is needed?
• How much will recovery cost?
• How will recovery work?
Anticipated Topics - Schedule

- Background & Overview of 2014 Joint Recovery Plan to Present (Today’s Meeting)
- Updated Modeling (Meeting 2)
  - Risk tolerance
- Methods & Credit Distribution (Meeting 3)
  - Joint Recovery Plan and SUA
  - Stakeholder proposals
- Projected Recovery Costs (Meeting 4)
- Other Topics Important to Stakeholders
AZ Strategies for Mitigating Effects of Shortage

- Conservation/Demand Management
- CAP Tiered Priorities
- Shortage Sharing Agreement
- Non AWBA Storage/Recovery (>6MAF)
- AWBA Storage/Recovery (>3.6MAF)
Recovery Planning & Implementation

Joint Recovery Plan
ADWR, AWBA, CAWCD
2013-2014
- Defined Roles
- Coordinated Modelling Efforts
- ID'ed Recovery Methods
- ID'ed Opportunities
- Ad Hoc Group

Implementation Activities since Plan
2015-2017
- AWBA/GRIC IGA
- CAP SUA (CAWCD/REC)
- CAWCD Recovery Exchange Agreements
- Water Quality Standards Task Force
- Feasibility Studies

Recovery Planning Advisory Group
2018
- Updated Modeling
- Methods & Credit Distribution
- Projected Recovery Costs
- Other Topics Important to Stakeholders
Review of the 2014 Joint Recovery Plan

- Background, Purpose & Scope
- Roles & Responsibilities
- Funding, Purpose & Location
- Methods & Cost
- Likelihood, Timing & Magnitude
- Credit Request, Distribution & Opportunities
- Implementation
- Future Activities & Commitments
Background, Purpose and Scope

- AZ relies on a multi-faceted approach to mitigating shortages
- Plan focuses on one of these strategies
- AWBA has stored over 4MAF in 3 AMAs (including storage for Nevada)
- The need to recover these credits will be triggered by shortages and/or interstate requests:
  - CAP M&I subcontractors, on-river M&I users, Indian water settlement obligations and Interstate banking obligations
- Road Map for recovering AWBA credits out to 2045 – commitment to future activities
Roles & Responsibilities

- AWBA
- CAWCD
- ADWR
- BOR
- Recovery Partners
- Beneficiaries
- Other Interested Parties

2014 Joint Recovery Plan Review
# Funding, Purpose & Location of Credits

## Table 1. AWBA Credits through 2016, by AMA and Funding Source (AF)

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Phoenix AMA</th>
<th>Pinal AMA</th>
<th>Tucson AMA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Cent Ad Valorem Tax</td>
<td>1,419,558</td>
<td>215,882</td>
<td>459,842</td>
<td>2,095,282</td>
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<tr>
<td>Withdrawal Fees</td>
<td>332,063</td>
<td>421,560</td>
<td>105,734</td>
<td>859,357</td>
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<tr>
<td>General Fund</td>
<td>42,316</td>
<td>306,968</td>
<td>54,546</td>
<td>403,830</td>
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<tr>
<td><strong>Other Intrastate:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian Firming Appropriation</td>
<td>-</td>
<td>-</td>
<td>28,481</td>
<td>28,481</td>
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<tr>
<td>Shortage Reparation</td>
<td>20,642</td>
<td>60,507</td>
<td>28,340</td>
<td>109,489</td>
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<tr>
<td>GSF Operator Full Cost Share</td>
<td>-</td>
<td>14,125</td>
<td>-</td>
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<tr>
<td>Intrastate TOTAL</td>
<td>1,814,579</td>
<td>1,019,042</td>
<td>676,943</td>
<td>3,510,564</td>
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<tr>
<td>Interstate - Nevada</td>
<td>51,009</td>
<td>440,241</td>
<td>109,791</td>
<td>601,041</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>1,865,588</td>
<td>1,459,283</td>
<td>786,734</td>
<td>4,111,605</td>
</tr>
</tbody>
</table>
Methods & Cost

• Recovery Methods
  – Direct (ex. TDRP, new wells pump directly into canal)
  – Indirect (ex. Muni provider with extra well capacity pumps credits for self/others)
  – Credit Exchange (ex. Muni provider who does annual storage and recovery agrees to receive less water to USF and recovers credits for self/others)

• Costs
  – Will depend on the combination of methods used to recover

2014 Joint Recovery Plan Review
Likelihood, Timing & Magnitude

• Factors Affecting Recovery
  – Magnitude of shortage to AZ
  – AZ demands (On-River and CAP)
  – Interstate requests for ICUA

• Modeling Approach
  – CRSS (07 Guidelines, Historic Record 107 years)
    • Projects available water to AZ out till 2045
    • 107 traces or “futures”
  – Post processing (AZ Demands)
  – Probabilistic results
    • Shaded graphs
    • Probabilities of needing to recovery a certain volume in a given year
Modeling Results

• Earliest projected instate recovery is 2017 (1% probability; Indian NIA and On-River)
• Less than 35% probability of needing any recovery before the Mid-Term planning period (2024-2034)
• No M&I recovery projected until Long-Term planning period (2035-2045)
• Bulk of instate credits remain past 2045
• Timing and magnitude of Nevada’s request plays significant role in Mid-Term and Long-Term planning periods
Credit Request, Distribution & Opportunities

- During shortages the amount of credits needed for recovery will be based on:
  - Requests for firming from on-river P4 users
  - Differences between available supplies and orders for CAP M&I and firmed NIA users (up to 20% of the shortage to the CAP M&I pool)
  - ICUA requests from SNWA (Shortage & Non-Shortage)

- CAWCD, in cooperation with the AWBA, will develop a Recovery Schedule based on these recovery needs

- AWBA and ADWR will review CAWCD’s proposed Recovery Schedule

- AWBA distributes credits to CAWCD (IGA)

- CAWCD recovers credits directly or through recovery partners to meet demand needs in each AMA
Implementation

• Operational Timeline
  – Key actions taken before, during and after Recovery Year

• Collection of Costs
  – Beneficiaries of recovery pay the associated costs of recovery
    • Instate recovery costs are borne by the class of users (or pool) benefiting from recovery
    • Interstate recovery costs are borne by SNWA
Future Activities & Commitments

• Recovery Agreements
• Technical Studies & Project Feasibility
• Monitoring and Updating Modeling
• AWBA Activities
Next Meeting – Updated Modeling

• Updated Hydrology
  – Historic record (now 110 years)

• Operational Guidelines
  – DCP vs 2007 Guidelines
  – Absolute protect

• Acceptable Risk Tolerance
  – Planning target
Wrap Up

• Questions/Comments
• Next possible meeting dates:
  – March 7, 22 or 27
  – May 8, 9, 22, 23
• Will send a Doodle Poll to confirm best availability
• Contact Jeff Inwood with questions or comments jinwood@azwater.gov