

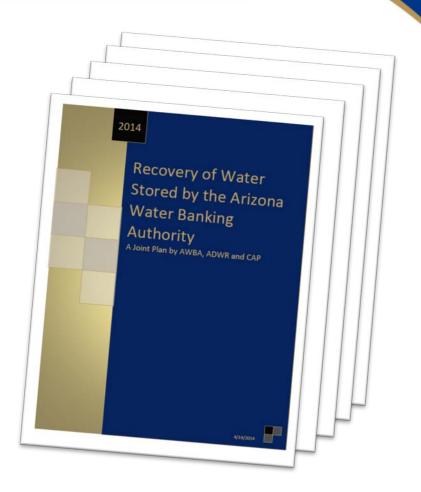
AWBA Firming

- Firms a portion of water going to Tribes through Indian Settlements
- Firms CAP M&I Priority pool
- Firms M&I Users On-River
- Interstate banking obligations Nevada (SNWA)



Joint Recovery Plan

- Over time there have been a number of separate recovery planning efforts by AWBA, ADWR and CAWCD
- In 2014, a Joint Recovery Plan was developed by CAWCD, AWBA and ADWR
- Describes basic framework, methods, timing, volume, and potential partnering opportunities





Recovery Implementation

- Internal coordination and program development
 - Term Sheet of a Standard Form Recovery Exchange Agreement
 - Draft Recovery Exchange Agreement
 - Recovery Funding Discussions (Board Retreat & Finance Discussions)
- Meetings with potential recovery partners
 - Pending recovery agreements (SNWA, AWC, and others)
- Coordination with AWBA and ADWR
 - Data coordination and modeling update efforts
 - IGA between AWBA and CAWCD for Indian NIA firming
 - Interstate firming
- Coordination with Reclamation
 - Sharable Draft
 CAP System Use Agreement
- Technical studies
 - TDRP findings due soon



CAP System Use Agreement

- CAP SUA Content
 - Firming (assoc. Firming Agreements)
 - Wheeling (assoc. Reclamation & CAWCD Agreements)
 - Exchanges (assoc. Exchange Agreements)
 - Priorities
- Agreement Status (Draft -> Signed document)
- Next Steps for Implementation
 - Water Quality (early 2017 study session with Board; develop uniform water quality standards with BOR)
 - Policy for Funding System Improvement Projects



Next Steps - SUA

- Dec 1 Consideration of Action to delegate authority to Executive Committee to approve SUA before January 5, 2017, (if United States is prepared to sign)
- December 5, 2016 Tribal comments due
- December 7, 2016 Meeting with BOR to review comments and finalize SUA
 - ASSUMING SUA FINALIZED -
- December 9, 2016, Transmit to CAP Board, post final SUA on CAP website,
- After December 9, but before CRWUA CAP Executive Committee meeting to consider action approving SUA
- CRWUA Execution of SUA on behalf of the United States and CAP
- January 5, 2017 CAP Board ratification of Executive Committee action

Firming -SUA

- "Firming Water" is available to satisfy reductions to CAP contract orders due to shortage or unplanned outage
 - Includes tribal contracts and non-tribal subcontracts
- Sources of firming water are identified
 - Methods include both direct recovery into the canal, and exchanges
- CAWCD can deliver firming water without a separate wheeling agreement
 - Non-Federal contractors enter into Firming Agreements with CAWCD for delivery/receipt of Firming Water
 - Federal contractors enter into agreements with Reclamation for delivery/receipt of Firming Water

Ways CAWCD Can Recover

Direct Recovery

 Pump (through new or rehabbed wells) and introduce directly into the CAP system (treatment maybe needed)

Exchange Agreements (CAP System Use Agreement)

- Enter into an Exchange Agreement with a long term contract holder willing to receive recovered credits
- CAWCD recovers AWBA credits and exchanges this firmed water for the exchange partner's Project water
- This Project water can then be redirected by CAWCD to meet AWBA's firming obligations & partner uses recovered water

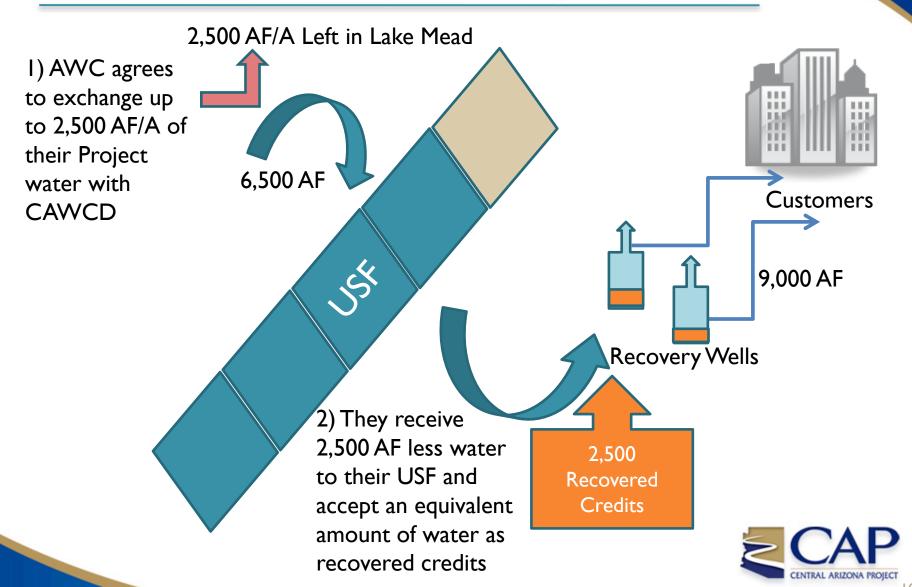


Recovery Exchange Agreement

- Between CAWCD and Long Term Contract holder
- One for one wet water exchange
- Recovered LTS credits for Project water
- CAWCD will only exchange recovered credits stored in facility acceptable to partner
- CAWCD must hold the recovery well permit in order to exchange recovered water but the partner has full control of its wells
- Exchange partner pays all costs that would have otherwise been associated with delivery of the Exchange partner's full CAP water order or available supply
- CAWCD shall pay the Exchange partner \$15 per acre-foot of CAP Project Water received plus any operational costs that would have not otherwise occurred



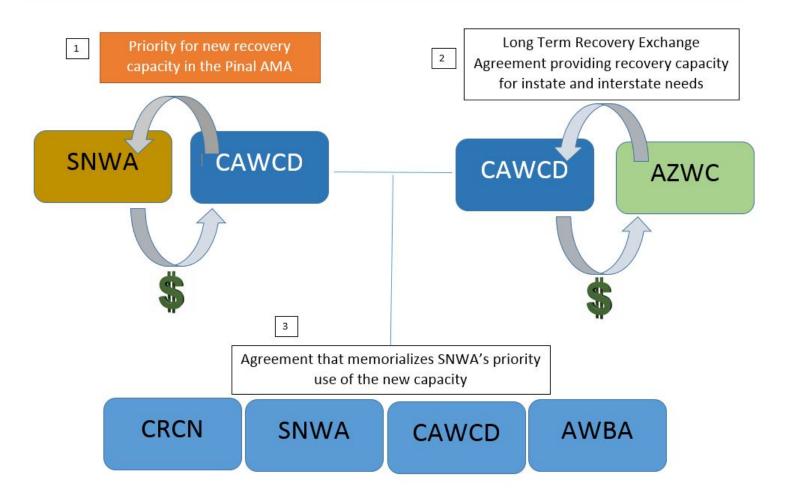
How AWC Recovery Exchange will work



Partnership with AWC in Pinal

- CAWCD would advance \$1M, received from SNWA, to AWC to assist in building a new USF in Pinal AMA
- In return for the \$1M, AWC would agree to enter into a 26 year recovery exchange agreement with CAWCD to provide guaranteed long term recovery capacity for both interstate and instate firming needs in the AMA (2025-2050)
- SNWA's financial contribution would give them priority to 2,500 AF/A at no additional cost, and in years in which SNWA does not need the capacity, CAWCD can use for instate recovery needs

Nature of Agreements





Cost of Recovery

- Up front costs (needed before recovery occurs)
 - o Smaller scale, near term, opportunistic
 - \$1-3 M (rehab wells, other small scale projects)
 - <u>Large scale</u>, planned infrastructure projects
 - TDRP \$30-80M in upfront capital: recovery wells, treatment

Annual costs accrued in year recovery occurs

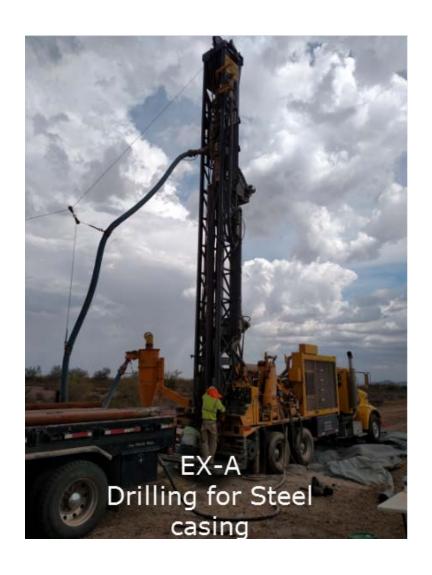
- Annual O&M of recovery wells
- Incentive Payments to Exchange Partners
- State Recovery Fees
- Credit Transfer Fees
- Wheeling Fees if using third party infrastructure
- Capital costs for infrastructure
- Fixed and variable CAP water delivery charges for direct recovery



Technical Studies



TDRP - Borehole Drilling





TDRP - Borehole Drilling







