• Purpose of IRWD Water Banking Projects
• Water Banking Projects overview
• Operations and stored water
• Agreements between IRWD, MWDOC and MWD
• Draft Wheeling Agreement
• Cost of water to IRWD’s service area
• Conceptual water banking program
• To improve IRWD’s water supply reliability during periods of severe drought and/or supply interruptions
• To store supplemental wet year supplies using cost efficient methods
• To meet IRWD’s projected needs for import water for 3 years in a row
  – Using 88,000 AF of contingency storage
• IRWD has developed two Water Banking Projects in Kern County:
  - 761 acres of recharge basins
  - 7 production wells
    - 36 cfs of capacity
  - 50,000 acre-feet of storage capacity
  - Access to Cross Valley Canal and California Aqueduct
• Expansion in progress
Location ideal for water banking and conveyance

Strand Ranch: 611 acres total; 502 acres of recharge basins (acquired in 2004)
Stockdale West Ranch: 325 acres; 259 acres of recharge basins (acquired in 2010)
• IRWD / Rosedale-Rio Bravo Water Storage District (Rosedale)
  • Water Banking and Exchange Agreement (30 year term)
    – Executed in January 2009
    – Provides for shared use of the Strand Ranch
    – IRWD as the owner, Rosedale as the operator

• IRWD / Buena Vista Water Storage District (BVWSD)
  • Water Exchange Agreement (28 year term)
    – Executed in December 2010
    – Exchanges of pre-1914 Kern River water on a 2-for-1 basis
Strand Ranch Project Fully Operational

Recharge of 35,730 AF on Strand Ranch

Final well site with fencing and security measures

Well start up and discharge to CVC in April 2013 ¹)

¹) Pumping to CVC and California Aqueduct approved by DWR, Kern County Water Agency and MWD in early 2013.
Expansion onto the Stockdale West Ranch

Short-Term Pilot Project (2011)

• IRWD constructed 259 acres of recharge ponds
  - 4 miles of embankments
• Recharged 3,268 AF of Pre-1914 Kern River Water
  - 2 for 1 Exchange with Buena Vista Water Storage District (BVWSD)
Long-Term Project

• Additional recharge, storage and recovery capacity

• Similar terms to the IRWD/Rosedale agreement on the Strand Ranch

• Makes use of IRWD’s Stockdale West Ranch and Rosedale’s Stockdale East Property

• Draft Environmental Impact Report currently being prepared
  – Public Review in February 2014

• Terms for a water exchange project with BVWSD are under development
Sources of Water for Storage in Water Bank

**Water from the State Water Project (SWP):**

- Short-Term Unbalanced Exchange Programs (Table A water from SWP contractors)
  - 2008 and 2011 Central Coast Water Authority (CCWA)
  - 2011 Antelope Valley East Kern Water Agency (AVEK)
- IRWD’s Jackson Ranch in Dudley Ridge Water District (DRWD)
  - 883 acres with 1,747 AF of Table A Entitlement
  - Water to be banked at Strand Ranch on 2-for-1 basis
  - Participation rights in the Kern Water Bank (7,600 AF of storage)

**Water from Non-SWP Supplies:**

- Kern River Flood Flows (via Rosedale); IRWD retains 20%.
- Kern River High-Flow “Pre-1914” Water (via BVWSD)
  - IRWD retains 50%
- Other Wet-Year Exportable Supplies (as available)
<table>
<thead>
<tr>
<th>Year</th>
<th>BVWSD</th>
<th>AVEK</th>
<th>CCWA</th>
<th>DRWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Recharged 8,741 AF</td>
<td></td>
<td>Recharged 589 AF</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Recharged 16,732 AF on Strand and 3,268 AF on Stockdale Pilot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Recovered 2,500 AF by exchange</td>
<td>Stored 5,000 AF (direct &amp; in-lieu)</td>
<td>Recharged 1,400 AF</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Recovered 6,667 AF by extraction</td>
<td></td>
<td>Recovered 280 AF by extraction</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Recovery for BVWSD of 3,800 AF by extraction</td>
<td>Recovery for AVEK of 2,229 AF by extraction</td>
<td>Recovery for CCWA of 207 AF by exchange</td>
<td>869 AF to be stored in Strand Ranch or Southern California</td>
</tr>
<tr>
<td>IRWD’s Stored Supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>------------------------</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strand Ranch</th>
<th>Stockdale Ranch</th>
<th>Kern Water Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16,843 AF</td>
<td>1,401 AF</td>
<td>4,039 AF SWP water</td>
</tr>
<tr>
<td></td>
<td>• 12,330 AF of Pre-1914 Kern River water</td>
<td>• 4,513 AF SWP water</td>
<td></td>
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</tbody>
</table>
• **Coordinated Operating and Exchange Agreement (2011)**
  - Allows IRWD to secure SWP water
    - Storage in Strand Ranch
    - Water is delivered to IRWD through exchange
  - MWD can borrow SWP supplies from IRWD

• **Wheeling Agreement (in process)**
  - Allows access to MWD facilities to transport non-SWP supplies to IRWD’s service area
Consistent with MWD’s Wheeling Service

- To transport water not owned or controlled by MWD
- Transactions within a one-year period ($5,000 fee)
- Subject to the MWD General Manager’s determination of available system capacity

**Wheeling Service Rates:**

<table>
<thead>
<tr>
<th>Service</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Access Rate</td>
<td>$243 / AF</td>
</tr>
<tr>
<td>Water Stewardship Rate</td>
<td>$ 41 / AF</td>
</tr>
<tr>
<td>Actual Power (estimated)</td>
<td>$208 / AF</td>
</tr>
<tr>
<td>Treatment</td>
<td>$297 / AF</td>
</tr>
</tbody>
</table>

Total Wheeling Service: $789 / AF

Note: MWD’s Full Service Tier 1 Treated Rate = $890 / AF (2014)
• Will facilitate a pilot for recovery and delivery of 1,000 AF of pre-1914 Kern River high flow water
  - Test all necessary agreements and arrangements to wheel non-SWP water to IRWD’s service area
  - Maintains the Strand Ranch as an “Extraordinary Supply” source
• Modeled after two previous agreements
  - San Diego County Water Authority
• IRWD, MWD and MWDOC will be parties
• Template for future wheeling transactions
Next Steps

• Reviews by both MWD and MWDOC

• Joint meetings to review comments and proposed revisions

• Finalization of the Agreement:
  – IRWD Board of Directors April 2014
  – MWDOC Board of Directors April 2014
  – MWD General Manager May 2014

• Plan for recovery and delivery of water
  – Summer 2014
Strand Ranch costs shown are for wheeled non-SWP water.
• IRWD and MWDOC staff are working together to conceptualize a water banking program using MWD water

• The program could provide reliability benefits to IRWD, other agencies in Orange County and other MWD Member Agencies:
  – Enhance dry year supply reliability
  – Providing an opportunity to establish “Extraordinary Supply” programs
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