Primary Work Elements

- **Environmental Mitigation**
  - Mitigation Implementation - Bruce Wilcox
  - NCCP/HCP - Tina Shields

- **Fallowing Program**
  - Review of Previous FPs - Tina Shields
  - Status of 08-09 FP - Tina Shields

- **Efficiency Conservation**
  - Main Canals Seepage Interception - Darren Fillmore
  - Near-Term Actions - John Eckhardt
Completed

- Drain and riparian vegetation analysis
- Desert vegetation analysis
- Baseline survey protocols
- Pupfish sampling protocols
- Selenium study protocols
- Burrowing owl pilot and population/distribution field study
Environmental Mitigation
IMPLEMENTATION

**In Progress**
- Managed marsh
- Water quality studies
- Pupfish refugium
- Selenium transport evaluation
- Selenium toxicity study
- Covered species baseline surveys
Environmental Mitigation
IMPLEMENTATION

• **Planned**
  - O&M Worker training
  - Burrowing owl mitigation
  - Monitor flycatcher nesting habitat
  - Monitor seepage recovery for impacts to vegetation
  - Air quality analysis
**Purpose** – Permits with longer term regulatory assurances to protect IID and its water users from State and Federal endangered species regulations (“incidental take and no surprises” coverage)

**Covered Species** - 96 fish, wildlife, and plant species

**Covered Activities**
- IID Diversion, Conveyance and Delivery
- IID Canal and Drain O&M
- Implementing activities of QSA/Transfer
  - IID
  - Growers and Landowners

**Term** - 75 years
HCP/NCCP Status

- Draft HCP/NCCP
  - Meetings with CDFG and USFWS over the last 3 years
  - Current mitigation strategies to be completed
    - Salton Sea species conservation
    - Agriculture field (forage) habitat conservation
- EIR/EIS
  - Supplemental document in progress
HCP/NCCP
Schedule

- HCP/NCCP completed and available to agencies December 31, 2008
- 60-90 days for comments
- Completion of Findings for HCP/NCCP
- Completion of supplemental EIS/EIR after HCP/NCCP
- Agencies issue permits
Fallowing Program
Water Requirements

![Bar chart showing Fallowing Program Water Requirements from 2003 to 2026. The chart compares Salton Sea Mitigation Fallowing and Transfer Fallowing.]
Fallowing Program
Summary of Past Years

- **2003-2004 Emergency FP** (12/1/03-12/31/04)
  - $1,774,782
  - 69 fields
  - 5,764 acres
  - 38,641 acre-feet water yield (at farm)
  - 44,786 acre-feet water yield (at river)

- **2004-2005 FP** (7/1/04-6/30/05)
  - $3,356,392
  - 118 fields
  - 12,126.5 acres
  - 67,273 acre-feet water yield (at farm)
  - 77,971 acre-feet water yield (at river)

- **2005-2006 FP** (7/1/05-6/30/06)
  - $3,180,992
  - 105 fields
  - 11,676.2 acres
  - 69,764 acre-feet water yield (at farm)
  - 80,858 acre-feet water yield (at river)
Fallowing Program

Summary of Past Years

- **2006-2007 FP (7/1/06-6/30/07)**
  - $5,326,065
  - 169 fields
  - 17,984.4 acres
  - 96,395 acre-feet water yield (at farm)
  - 110,305 acre-feet water yield (at river)

- **2007-2008 FP (7/1/07-6/30/08)**
  - $6,246,532
  - 150 fields
  - 16,172 acres
  - 89,512 acre-feet water yield (at farm)
  - 101,370 acre-feet water yield (at river)

- **2008-2009 FP (7/1/08-6/30/09)**
  - $5,402,315
  - 133 fields
  - 12,778.7 acres
  - 66,406 acre-feet water yield (at farm)
  - 75,461 acre-feet water yield (at river)
Fallowing Programs Summary

Provisional values – subject to revision

6 Programs (Dec 1, 2003 – Jun 30, 2009)
- $25,287,078
- 744 contracted fields
- 543 separate fields/198 duplicate fields
- 76,502 total fallowed acres
- 427,991 acre-feet water yield (at farm)
- 490,751 acre-feet water yield (at river)

5.6 AF/AC average FP (at farm) water yield
Efficiency Conservation Program

Near Term Actions

Near Term Actions
- Recommended by the Efficiency Conservation Definite Plan
- Two MWAs approved by the Board of Directors on May 29, 2007 and August 21, 2007

Purpose
- Meet early efficiency conservation requirements
- Finalize conservation programs for long term ramp-up schedule

Projects
- Main Canals Seepage Interception Project
- On-Farm - Efficiency Conservation Program
- System Conservation - Integrated Information Management
- Improved Delivery Measurement
Main Canals Seepage Interception Project

- **Phase 1 – First Four Sites**
  - In operation since February 28, 2008
  - Have undergone field adjustments to ensure peak operational efficiency
  - Final testing scheduled for this week

- **Phases 2-5 – Remaining 18 Sites**
  - Installation of power lines, sump structures and check structures scheduled to be completed soon
  - Vendor has been selected for pumps and motors
  - RFQ for electromagnetic flow meters closes July 1
On-Farm Efficiency Conservation
2008 Pilot Program

- Pilot Program tests the various implementation aspects of on-farm conservation:
  - Conservation measure: Irrigation Scheduling and Event Management
    - Irrigation Scheduling uses scientific measurements and calculations to determine *how much* water to apply to crops and *when* to apply it
    - Irrigation Event Management focuses on *how* to apply water most efficiently
  - Contracts – modified fallowing program contract
    - New verification baseline
    - Different incentive payments
On-Farm Efficiency Conservation
2008 Pilot Program

- Program plan:
  - Forage and citrus fields greater than 65 acres are eligible; all fields at a gate must enroll
  - Participating growers must hire prequalified irrigation scheduling firm to provide irrigation scheduling and event design recommendations
  - Growers will receive a fixed initial payment to compensate for cost of scheduling firm and a final payment based on the verified conserved water
  - Results of program will be reviewed and analyzed by the WCAB
On-Farm Efficiency Conservation
2008 Pilot Program

- **Status:**
  - Two scheduling firms were prequalified and have provided cost estimates
  - IID-Grower contract is in final revision
  - IID will solicit grower participation this week

- **Schedule:**
  - July 1 – December 31
On-Farm Efficiency Conservation
2009 Pilot Program

- Currently working with WCAB to develop contract details for recommendation to the Board of Directors
- Contract details to be completed
  - Method to verify conserved water
  - Payment structure to growers and/or land owners
  - On-Farm conservation methods
  - Participation details
- Schedule
  - Use contracts in 2009 Pilot On-farm Program to determine if changes are needed for future years
  - September 2008 - Approval by Board of Directors
System Efficiency Conservation

- **Integrated Information Management**
  - Measurement of all lateral headings and spills
  - Improved measurement of all Farm turn-outs
  - Zanjero computer in vehicle with real-time information and decision support
  - SCADA upgrade

- **Delivery system Improvements**
  - Upgrade 7 spill structures
  - Upgrade 2 main canal reservoirs (Sheldon and Singh)
  - New main canal reservoirs - 3
  - Zanjero mid-lateral reservoirs – 27
  - Lateral interties – 7
  - Non-leak gates – 100
System Efficiency Conservation
2008-2009 Pilot Program

- Test zanjero use of computers/information in vehicles
  - Two zanjero runs selected for pilot program (Holt and Orchid)
- Lateral headings, spills and farm turnouts measured on the two zanjero runs
  - Measurement devices (portable with transmitter) selected for farm turnouts
  - Three new heading gates and one spill gate installation designed
  - SCADA designed for real-time reporting to zanjero computer
- Permanent on-farm turnout measurement devices on one lateral
  - Orange Lateral selected
  - All farm turnouts equipped with new measurement devices
Improved Measurement

- Test different farm turnout measurement devices
  - Determine criteria for system-side or farm-side installation
  - Determine “best” and most economic measurement devices

**2008-2009 Pilot Program - Status**

- Analyzed and selected measurement devices and installations for each of the Orange Lateral farm turnouts
- Manufacturers have visited sites and preparing bids and schedules for installation
- Visits to farmers, zanjeros, and district superintendents to explain pilot program and provide briefing materials
- System-side installations completed during August lateral cutout
- Farm-side installations completed by October
## MWA Expenditures

<table>
<thead>
<tr>
<th>MWA</th>
<th>Approved Amount</th>
<th>Expenditures to Date</th>
<th>Remaining</th>
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<tbody>
<tr>
<td>Design and Construction of Main Canal Seepage Interception System</td>
<td>$7,700,000</td>
<td>$3,619,682</td>
<td>$4,080,318</td>
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<td>Efficiency Conservation Program Near-Term Actions – On-Farm, System, and Measurement</td>
<td>$5,700,000</td>
<td>$201,301</td>
<td>$5,498,699</td>
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Questions