Odessa Groundwater Replacement Program (OGWRP)

Columbia River Basin Water Management Program - Policy Advisory Group (PAG)

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Overview

- Columbia Basin Projects
- OGWRP Partnerships
- OGWRP Water Supplies
- East Low Canal Improvements
- OGWRP Delivery Systems
- EL47.5 Delivery System
- Moving Forward
- Questions/discussion
Columbia River Partnership

• December 2004
• Columbia River Initiative Memorandum of Understanding

• February 2006
• State’s Columbia River Water Resource Management Act
Columbia Basin Projects

- Weber Siphon Complex
- Lake Roosevelt Incremental Storage and Releases Program (LRIRP)
- Potholes Supplemental Feed Route
- Odessa Groundwater Replacement
Odessa Subarea

a declining aquifer
Odessa Subarea Special Study

- Replace current groundwater irrigation in Odessa Subarea with CBP surface water
- Avoid economic loss and address declining groundwater for agriculture & other uses
- Fulfill obligation made by Reclamation and Ecology in the Columbia River MOU
Odessa – Final EIS
Modified Partial Replacement Alternative

• Maximize use of existing federal infrastructure
• Provides replacement water both north and south of I-90
• Allows phased development

East Low Canal at Bifurcation Plant
Weber Siphon

- To deliver surface water from the Columbia River to Odessa lands, existing water conveyance systems require improvements.
- This includes installing new siphons (Weber Siphon Complex) under Interstate 90.
Lake Roosevelt Incremental Storage Releases (LRIRP)

The Lake Roosevelt storage release would divert up to 82.5K ac-ft of water for:

- **27.5K (33%)** Instream Flows:
  - low stream flows
  - ESA listed
  - sturgeon
  - lamprey
  - bull trout
  - cutthroat trout
  - chinook salmon
  - chum salmon
  - coho salmon
  - sockeye salmon
  - steelhead salmon

- **30K (36%)** Odessa
- **25K (30%)** Municipal Needs

In a drought year an additional 50K ac-ft of water for:

- **17K (34%)** Instream flow during drought years:
  - declining ground-water supplies
  - 10 foot drop per year
  - 170,000 acres

- **33K (66%)** Interruptible water right holders

Municipal Needs:
- population growth
- increasing industrial demands

OGWRP Update Oct. 2015 - CRPAG
Potholes Supplemental Feed Route

- Goal to provide alternative feed routes to secure South Columbia Basin Irrigation District CBP water supply (to Potholes Reservoir)

- Frenchman Hills Wasteway
  - Additional Capacity
    - 25,000 acre-feet

- Crab Creek
  - Annual Capacity
    - 100/500 cfs
    - 126,000 acre-feet
  - Spring Flow Capacity
    - 500 cfs
    - 54,000 acre-feet
Coordinated Conservation Program

- Piping and lining projects between all three CBIDs
- Current limit 30,000 acre-feet (MWSC)
- Approx. 26,000 acre-feet conserved since 2009
OGWRP Partners

- **Department of Ecology**
  - Funding, Secondary use permit
  - Office of Columbia River & Eastern Regional Office

- **U.S. Bureau of Reclamation**
  - Columbia Basin Project (CBP) Federal facilities, Water Right

- **East Columbia Basin Irrigation District**
  - Contract with Reclamation for O&M
  - WSC with landowners

- **Landowners**
  - Participation; WSC with District
State Contribution

- Since 2005, the State has invested nearly $75 million in Odessa related projects to-date, including:
  - Lake Roosevelt Incremental Storage Releases Program
  - Potholes Supplemental Feed Route
  - Coordinated Conservation Program
  - Odessa Subarea Special Study
  - East Low Canal Improvements
OGWRP Water supplies

- OGWRP Total = ~87,700 acres
  - Odessa Subarea Special Study (OSSS)
    - 70,000 acres
  - Lake Roosevelt Incremental Storage Releases Program (LRIRP)
    - 10,000 acres
  - Coordinated Conservation
    - ~7,700 acres
OGWRP Water Supplies

- **Coordinated Conservation (CC)** - 7,700 acres
- **Lake Roosevelt Incremental Releases Program (LRIRP)** - 10,000 acres
- **Odessa Subarea Special Study (OSSS)** - 70,000 acres
OGWRP Water supplies

- Coordinated Conservation & LRIRP
  - 17,700 acres available
  - ~10,000 acres for District system (EL47.5)
  - ~7,700 acres for non-District systems
  - Water Service Contracts (WSC)
ELC Improvements

Completed May 2014
- 13 miles of canal widening
- 1 million C.Y. of earth moved

Scheduled Nov. - May 2014
- Leisle and Calloway Rd. bridge improvements
- Lind Coulee WW radial gate install

- Lind Coulee Siphons No. 1 & 2

- 31 miles of canal improvements
- 1.5 million C.Y. of earth moved

Remaining Improvements 2015 - 2016
- 3 addition siphons
- 8 county rd. bridge improvements
- 4 radial gate installs
ELC Improvements

- Zone 1 – 96% complete (13 miles ELC)
- Zone 2 – 60% complete (31 miles ELC)
- ~2.5M cubic yards of total material
- Earthwork to be completed May 2016
- District crews and machinery performing widening activities
- Roughly $2.2/C.Y.
- O&M road, seeding spoils, riprap install
ELC Improvements
ELC Improvements
ELC Improvements

- 2 county road bridges in Zone 1 are being addressed by the District
- Working w/ Adams Co. and Grant Co.
- Contract with design engineers
- 1 bridge replacement/ 1 bridge improvement
- Additional bridge work required:
  - 2 bridges in Zone 1
  - 8 bridges in Zone 2
ELC Improvements
ELC Improvements
ELC Improvements

- Lind Coulee Siphon No.1 & 2
- Reclamation Technical Service Center (TSC) design work (funded by DOE)
- District Project Management/Contract Administration
- Technical support from USBR (MOA)
- Currently ~60% complete (May 2016)
- Three (3) additional siphon barrels and five (5) additional radial gates required
ELC Improvements
ELC Improvements
ELC Improvements
ELC Improvements

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East Columbia Basin Irrigation District
Odessa Groundwater Replacement Program (OGWRP)
Preliminary Delivery System Alignments (10/14/15)
OGWRP Delivery Systems

- Original alignment from USBR feasibility study – anticipates infill lands
- Currently 7 canal side pump station systems
- Normalized cost for full OGWPR implementation costs
- Lands must meet Ecology, Reclamation, District eligibility criteria for a WSC
OGWRP Delivery Systems

- Closed pressurized system
- Delivery of 3 acre-feet/acre
- Max. availability 6.0 gpm/acre
- 10 psi minimum delivery pressure
- Optimization: System efficiency, cost
EL47.5 Delivery System

- The District Board has prioritized ~10,000 acres GW replacement water
- 7,600 hp canal side pumping plant
- 10.5 miles of buried pressurized pipe
- Acquiring District easements, to become Reclamation easements
EL47.5 Delivery System

Odessa Groundwater Replacement Program (OGWRP)
EL 47.5 System Delivery Design
Draft Water Service Contract Areas
09/16/2015

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EL47.5 Delivery System

- WSCs are being drafted
- Outstanding issues
  - Maximum potential financial burden on landowners
  - Time frame for WSC execution
  - EL47.5 landowners currently not in agreement with potential ceiling and other provisions
- Financing for continued OGWRP implementation
  - Delivery system construction
  - Additional ELC improvements
Moving Forward

- Continuing of ELC improvements under DOE Grant
  - Currently set to expire July 2016
  - ~$13.5M expended
  - Potential additional improvements possible
- Continued EL47.5 Delivery System Design
- Continued OGWRP delivery system designs
Moving Forward

- Continue securing financing
  - Requires Water Service Contracts (WSCs)
- Continue to work with USBR:
  - Reclassification/inclusion of lands for WSCs
  - Amended/supplemented MWSC
- Continue to work with DOE:
  - Eligible acre evaluation, water right transfers, landowner information
Questions/discussion

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