Major Project Update

Columbia River Policy Advisory Group
December 12, 2007

Presented by
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Regional Director
Washington State Department of Ecology
Presentation Overview

Joint Ecology-Reclamation MOU Projects

Joint Ecology-Reclamation Yakima Basin Storage Feasibility Study/EIS

Other Columbia River Projects
2004 Memorandum of Understanding (MOU)

- **Parties:** Reclamation, State (Ecology and WDFW), Quincy Columbia Basin Irrigation District, East Columbia Basin Irrigation District, and South Columbia Basin Irrigation District

- **Purpose:** work collaboratively to secure economic and environmental benefit from improved water management within Project and mainstem Columbia River
Provisions:

• Study potential for mainstem storage

• Pursue Lake Roosevelt diversions for purposes of providing:
  - Mainstem drought relief,
  - Municipal and industrial water supply,
  - First significant increment of water for Odessa subarea.

• Explore opportunities for additional deliveries of water to Odessa

• Assess options for Potholes Reservoir re-operation

• Seek access to water stored in Canadian Reservoirs
Columbia River
Mainstem
Off-Channel
Storage
Columbia River Mainstem Off-Channel Storage Study

- Appraisal (preliminary) report completed May 2007
- Crab Creek potentially viable based on cost and technical considerations
- Crab Creek potential significant environmental, socioeconomic, cultural impacts
- Congressional authorization required to proceed to feasibility study and EIS
Odessa Subarea Special Study

Purpose:

- Continue phased development of the Columbia Basin Project as authorized
- Replace groundwater pumping in the Study area with a surface water supply from the Columbia Basin Project
Potential Alternative Solutions Study
Recommendations

• Four Water Delivery Alternatives
  Infrastructure to convey surface water to groundwater
  irrigated lands in Study area

• Water Supply Options
  Replacement surface water supply for current groundwater
  irrigation in Study area
Alternative A:
Construct new
East High Canal system
Alternative B:

Construct north portion of East High Canal system.

Expand (south of I-90) and extend (near Connell) existing East Low Canal.
Alternative C: Expand existing East Low Canal south of I-90.
Alternative D: Use existing East Low Canal capacity north of I-90.
Water Supply Options

Operational modifications to existing storage facilities

- Banks Lake (Dry Falls and North Dams)
- Potholes Reservoir (O’Sullivan Dam)

New reservoirs

- Dry Coulee Dam and Reservoir
- Rocky Coulee Dam and Reservoir
- Lower Crab Creek Dam and Reservoir (two size options)
Potential Storage Reservoirs

- **Dry Coulee**
  (481,000 ac-ft)

- **Rocky Coulee**
  (126,000 ac-ft)

- **Lower Crab Creek**
  (200,000 ac-ft)
  (472,000 ac-ft)
### Estimated Groundwater Acreage by Water Supply Option

<table>
<thead>
<tr>
<th>Water Supply Option</th>
<th>Groundwater Acreage Served</th>
<th>acres</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks Lake</td>
<td>Drawdown</td>
<td>Up to 140,000</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Operational raise of 2'</td>
<td>Up to 16,700</td>
<td>12</td>
</tr>
<tr>
<td>Potholes Reservoir Reoperation</td>
<td></td>
<td>Up to 16,700</td>
<td>12</td>
</tr>
<tr>
<td>Dry Coulee Reservoir</td>
<td></td>
<td>Up to 140,000</td>
<td>100</td>
</tr>
<tr>
<td>Rocky Coulee Reservoir</td>
<td></td>
<td>Up to 46,900</td>
<td>34</td>
</tr>
<tr>
<td>Lower Crab Creek (200 KAF)</td>
<td></td>
<td>Up to 60,000</td>
<td>43</td>
</tr>
<tr>
<td>Lower Crab Creek (472 KAF)</td>
<td></td>
<td>Up to 140,000</td>
<td>100</td>
</tr>
</tbody>
</table>
Next Steps

### Current to 2011
- Public Comment on Appraisal Investigation through Nov. 30
- Select Alternative / Options for Feasibility Investigation
- Conduct Feasibility Investigation
- Conduct Environmental and Regulatory Compliance
- Select Preferred Alternative
- Begin Repayment Contract Negotiations

### After 2011
- Obtain Construction Authority and Federal Appropriations
- Prepare Final Construction Design & Specifications
- Award Contract for Construction
Potholes Supplemental Feed Route

Current Feed Route
- Average 350,000 Acre/Feet to Potholes Reservoir Annually

Supplemental Feed Route
- Move ¼ to Supplemental Feed Route
- 85,000 Ac/Ft
- Increase Reliability of System
Supplemental Feed Routes

Proposed Potholes Reservoir Supplemental Feed Routes
Columbia Basin Project, Grant County, Washington
Frenchman Hills Wasteway

- End Feed By 2nd Week of May
- Additional Capacity 25,000 Ac/Ft
**Capacity - Annual**
- 100/500 cfs
- 126,000 Ac/Ft

**Capacity - Spring**
- 500 cfs
- 54,000 Ac/Ft
Lake Roosevelt Incremental Storage Releases
Operational change of 1 foot annually and 1.8 feet during drought

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

- **27.5K (33%)** Instream Flow
- **30K (36%)** Odessa
- **25K (30%)** Municipal Needs

82.5K Acre-Feet

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

- **17K (34%)** Instream flow during drought years
- **33K (66%)** Interruptible water right holders

50K Acre-Feet
Municipal & Industrial Water - potential recipients

Cities - Brewster, Pateros, Quad cities

PUDs - Klickitat County, Chelan County

Water Districts - Malaga, Three lakes, Beverly, Alderdale

Release scenarios - under development
Release Scenarios for Fish - under development

- Fall adult
- Spring outmigration
- Wet year
- Drought year
Need for water will vary through irrigation season

Use 2001 as model - interruption determined on a weekly basis
- Last week in April to end of June
- Last to weeks in July and first week in August

33,000 acre feet would have represented about five weeks of water in 2001
• Released final programmatic EIS on Columbia River Water Management Program February 2007

• Addressed what was referred to as Lake Roosevelt Drawdown Project

• Received many comments regarding Lake Roosevelt in programmatic EIS - Ecology committed to supplemental analyses

• Supplemental EIS will focus on degree to which existing operational impacts are affected by incremental releases
Lake Roosevelt Water Elevations
Wet - Dry - Average Water Years

1997 (Wet)
2003 (Dry)
2002 (Average)

Date

Elevation
1200  1210  1220  1230  1240  1250  1260  1270  1280  1290  1300  1310  1320  1330

1997 (Wet)  2003 (Dry)  2002 (Average)
# August 31

**Lake Roosevelt Levels under CWP**

<table>
<thead>
<tr>
<th>Water Year</th>
<th>BiOp (msl)</th>
<th>CWP (acft)</th>
<th>Level (msl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (or greater)</td>
<td>1280</td>
<td>82,000</td>
<td>1278.92</td>
</tr>
<tr>
<td>Below Average</td>
<td>1278</td>
<td>82,000</td>
<td>1276.91</td>
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<tr>
<td>Drought</td>
<td>1278</td>
<td>132,000</td>
<td>1276.24 (4%)</td>
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</table>
Focus of Supplemental EIS

- Address the concerns and issues raised in the Programmatic EIS
- What we have heard directly from Spokane Tribe of Indians, the Confederated Tribes of the Colville Reservation, and the National Park Service
- Additional scoping
Identified Issues

- Health issues associated with contaminants in lake sediments
- Exposure of cultural resources
- Effects on resident fish and supplies of food for fish
- Erosion
- Economics
- Power generation
Identified Issues, cont'd

Recreational impacts:

• Marinas
• Boat launches/ ramps
• Docks
• Swimming areas
Lake Roosevelt
Next Steps

- Finalize release scenarios
- Distribute scoping notice
- Prepare and release draft supplemental EI S
- Prepare and release final supplemental EI S
- Make water right decisions
Yakima Basin Storage Feasibility Study

- Initiated by Reclamation in 2003 under congressional authorization
- State funding partner
- Study/ EIS costs $17 M (50/50)
- $1.35M from Columbia River Funds
Status

- Draft EIS/Planning Report Jan. ‘08
- Reclamation/Ecology Joint Alternatives
  - Black Rock Reservoir
  - Wymer Reservoir
  - Wymer Plus Pump Exchange
  - No Action
- Ecology only Alternatives
  - Enhanced Conservation
  - Market Driven Reallocation
  - Aquifer Storage and Recovery
- Final EIS/Planning Report Jan. ‘09
Other Columbia River Projects

- Kennewick ASR
- KID Pump Exchange
- Shanker’s Bend
- Columbia Basin Coordinated Conservation Planning
- Walla Walla
Questions