

# 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)

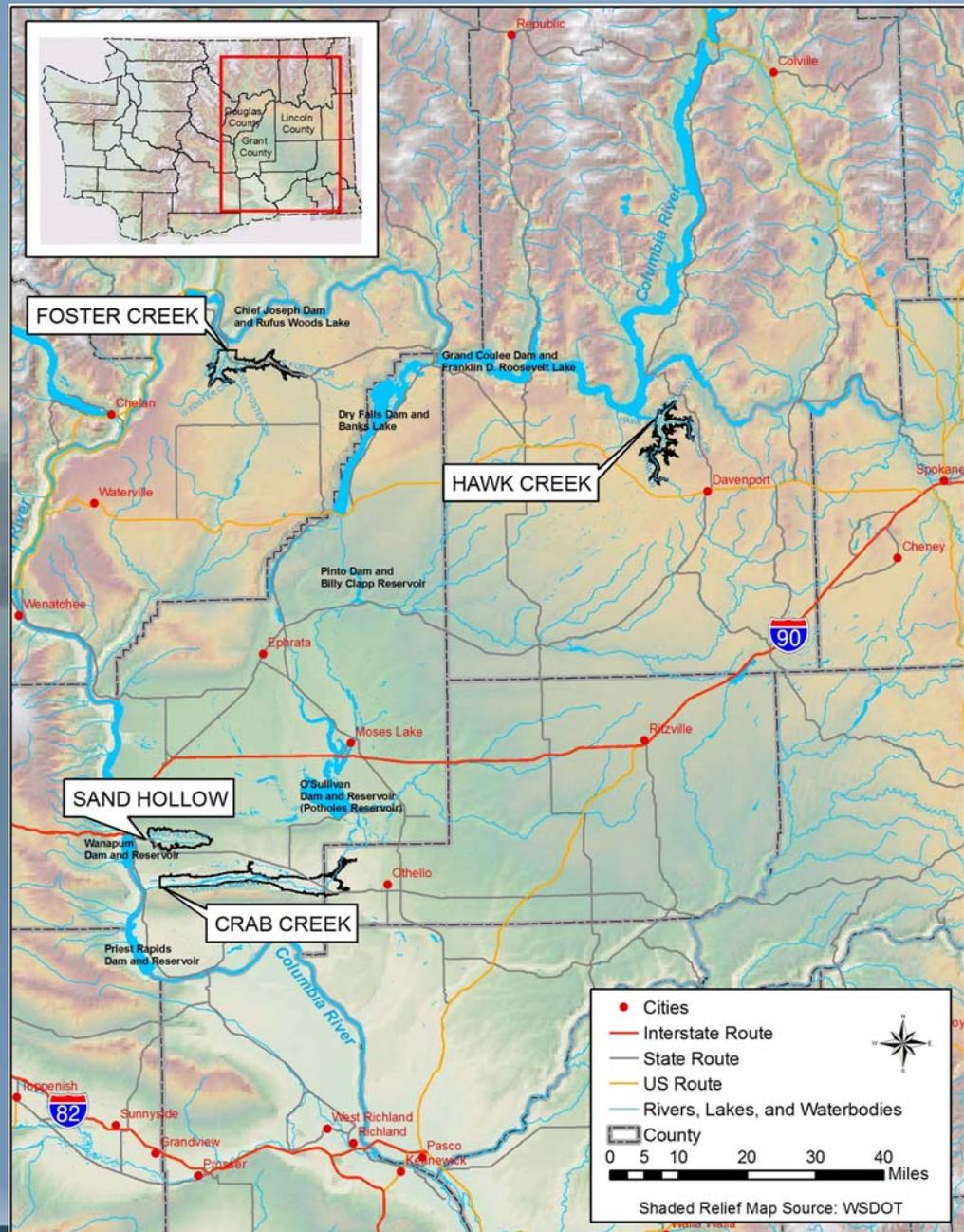
- **Parties:** Reclamation, State (Ecology and WDFW), Quincy Columbia Basin Irrigation District, East Columbia Basin Irrigation District, and South Columbia Basin Irrigation District
- **Purpose:** work collaboratively to secure economic and environmental benefit from improved water management within Project and mainstem Columbia River

## 2004 Memorandum of Understanding (MOU) cont'd

### 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

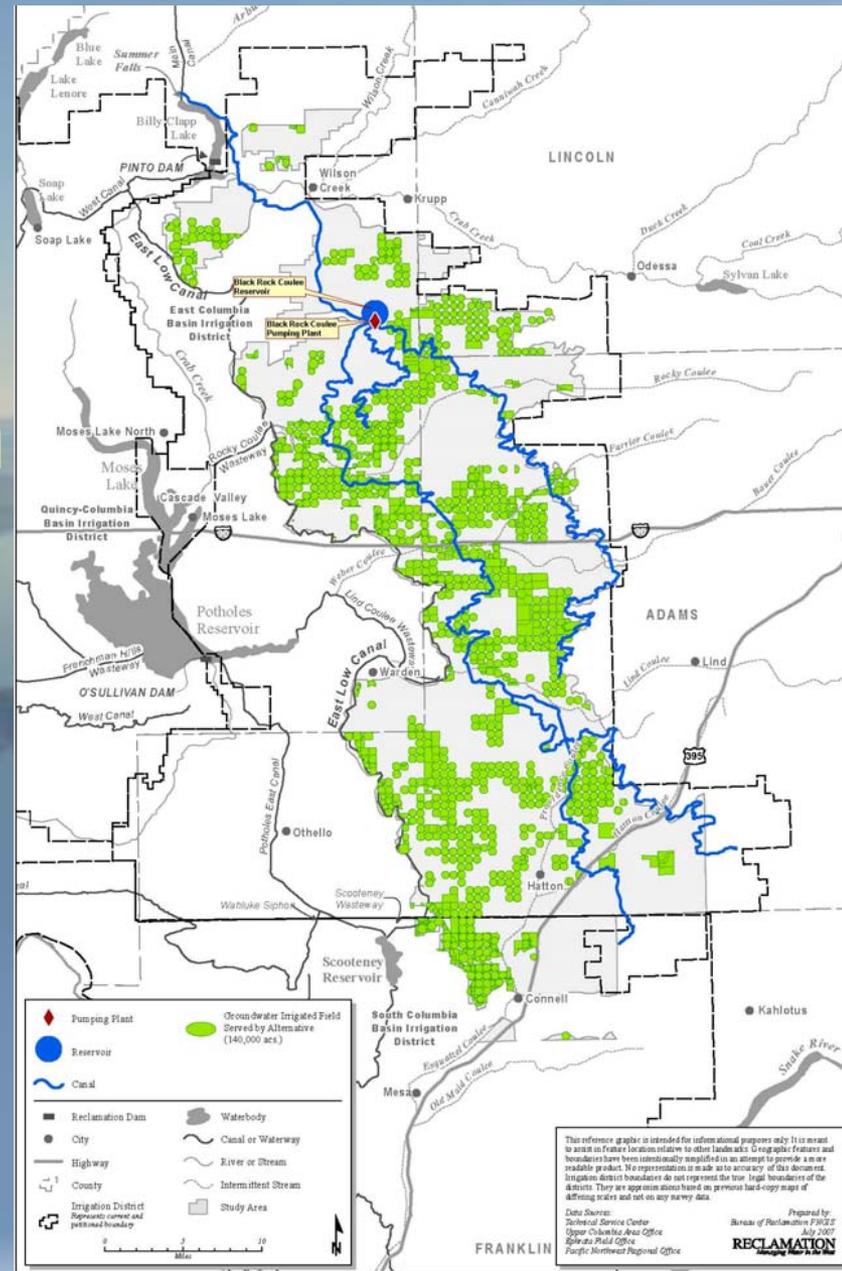
- **Four Water Delivery Alternatives**

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

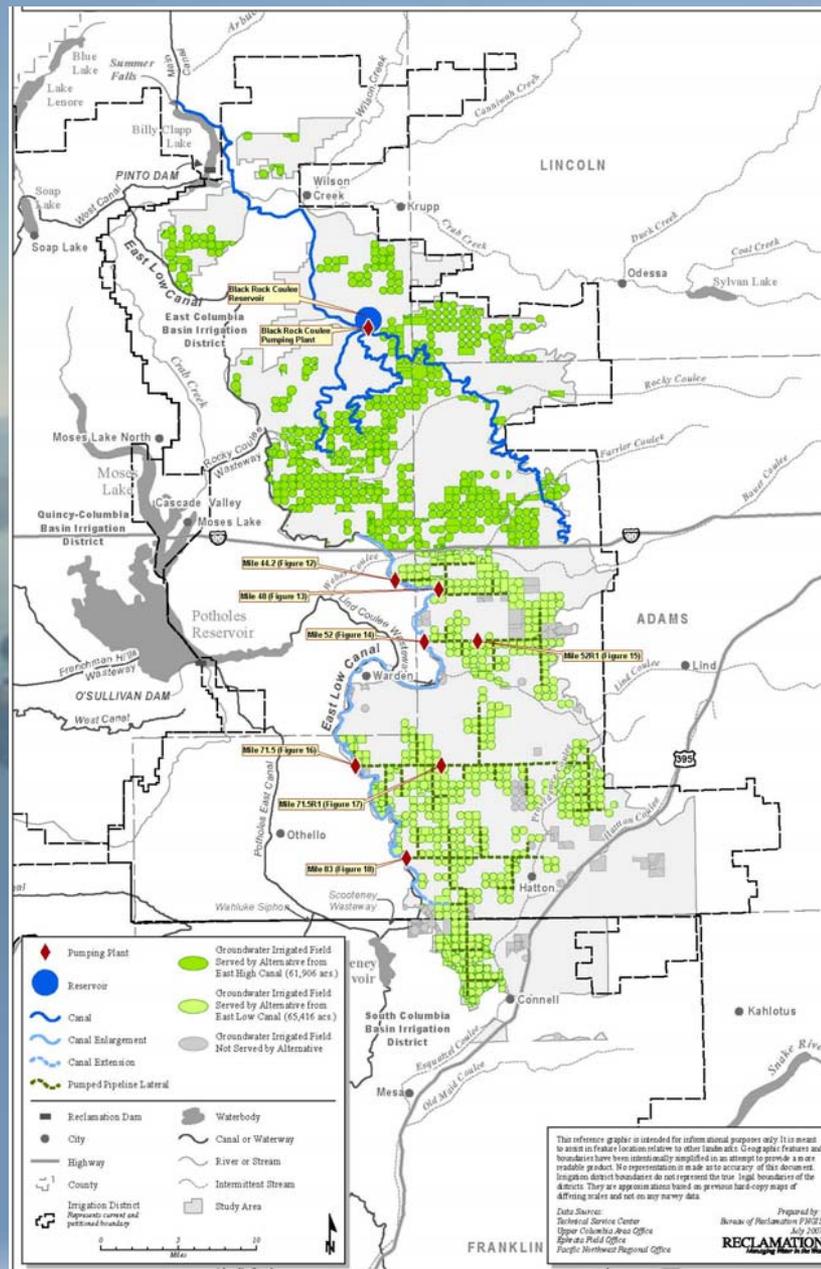
# Alternative A: Construct new East High Canal system



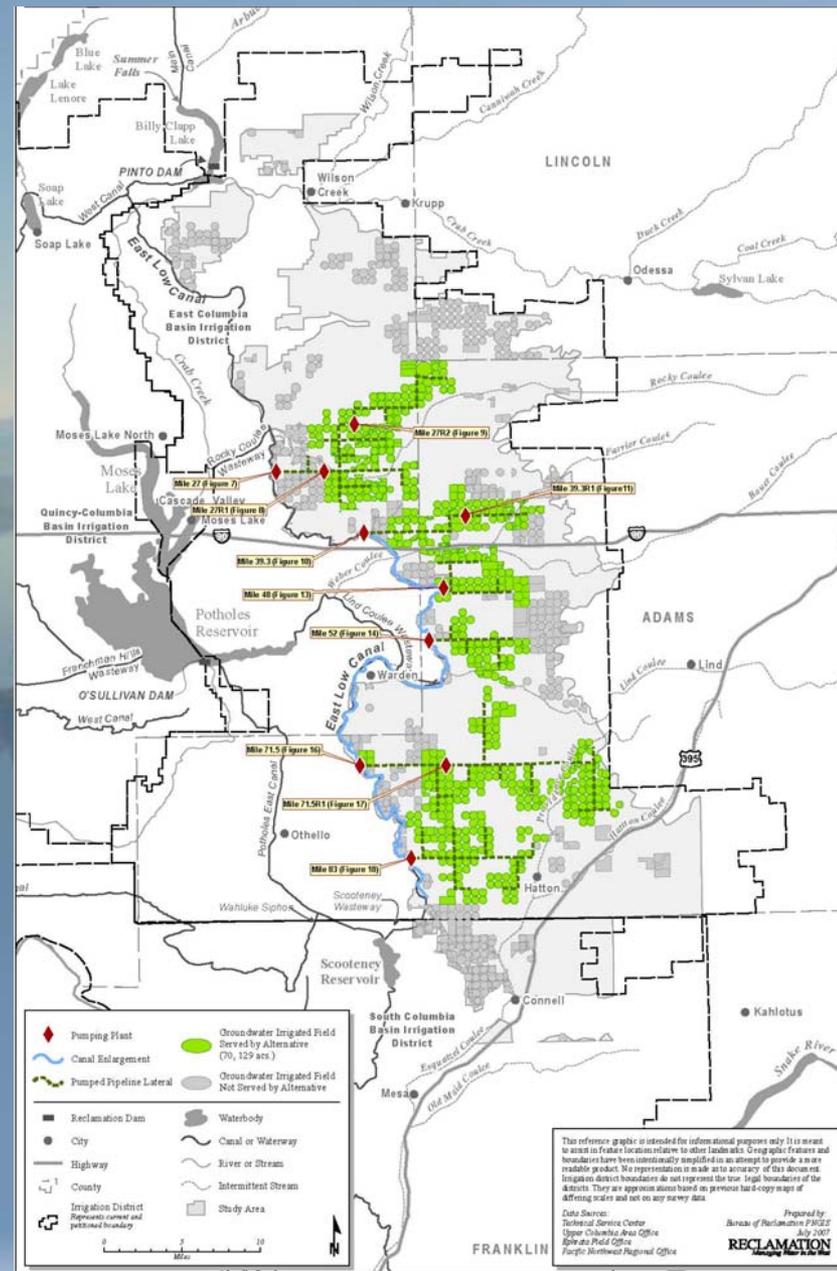
# Alternative B:

Construct north portion of East High Canal system.

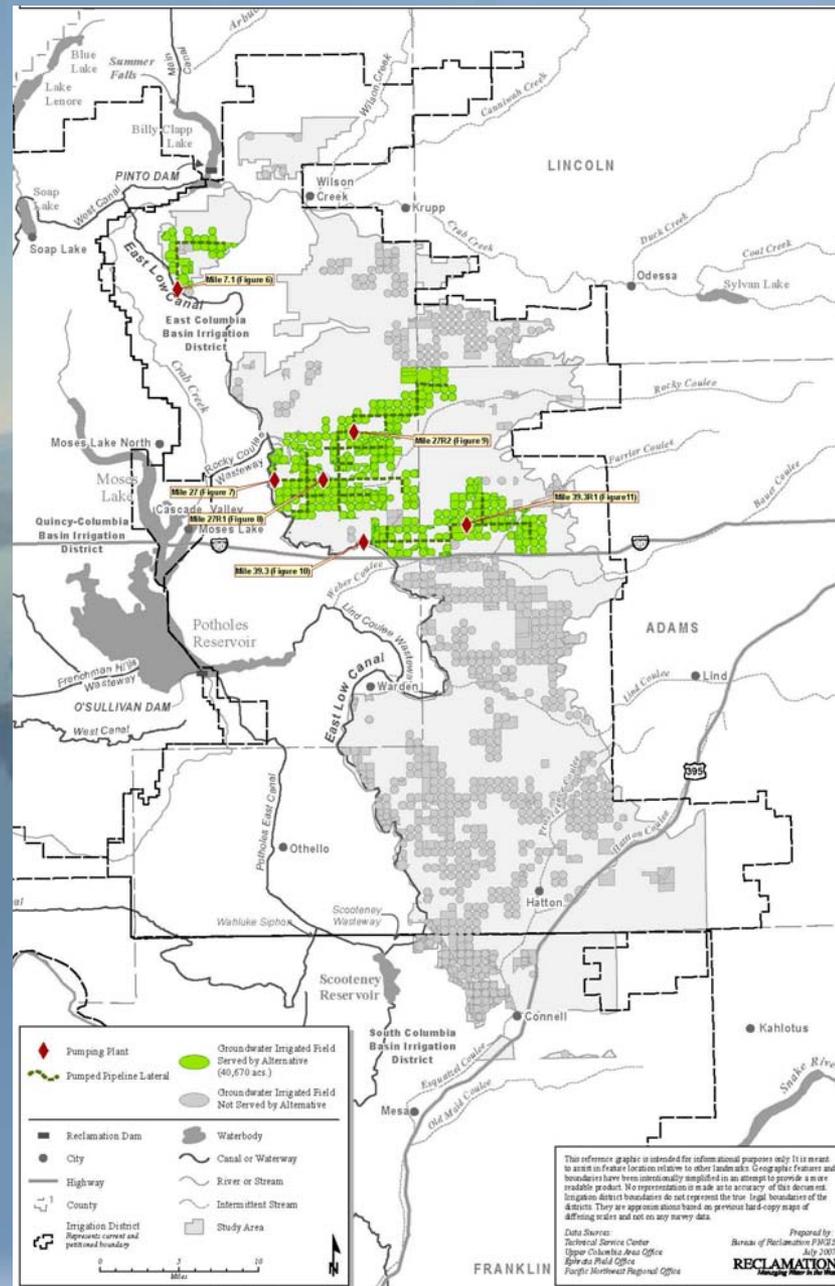
Expand (south of I-90) and extend (near Connell) existing East Low Canal.



# Alternative C: Expand existing East Low Canal south of I-90.



# Alternative D: Use existing East Low Canal capacity north of I-90.



This reference graphic is intended for informational purposes only. It is meant to assist in feature location relative to other landmarks. Geographic features and boundaries have been intentionally simplified in an attempt to provide a more readable product. No representation is made as to accuracy of this document. Irregular district boundaries do not represent the true legal boundaries of the districts. They are approximations based on previous hard-copy maps of differing scales and not on any survey data.

Data Sources:  
Technical Service Center  
Upper Columbia Area Office  
Aprata Field Office  
Pacific Northwest Regional Office

Prepared by:  
Bureau of Reclamation PWS  
July 2007  
**RECLAMATION**  
Managing Water for All

# 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

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

# 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

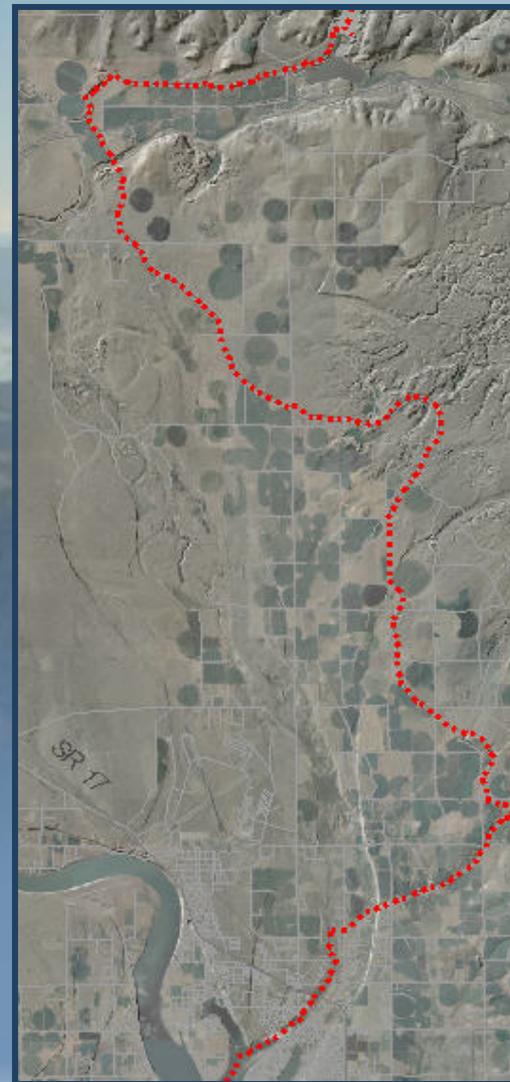
# Potholes Supplemental Feed Route

## Current Feed Route

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

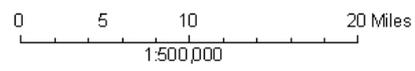
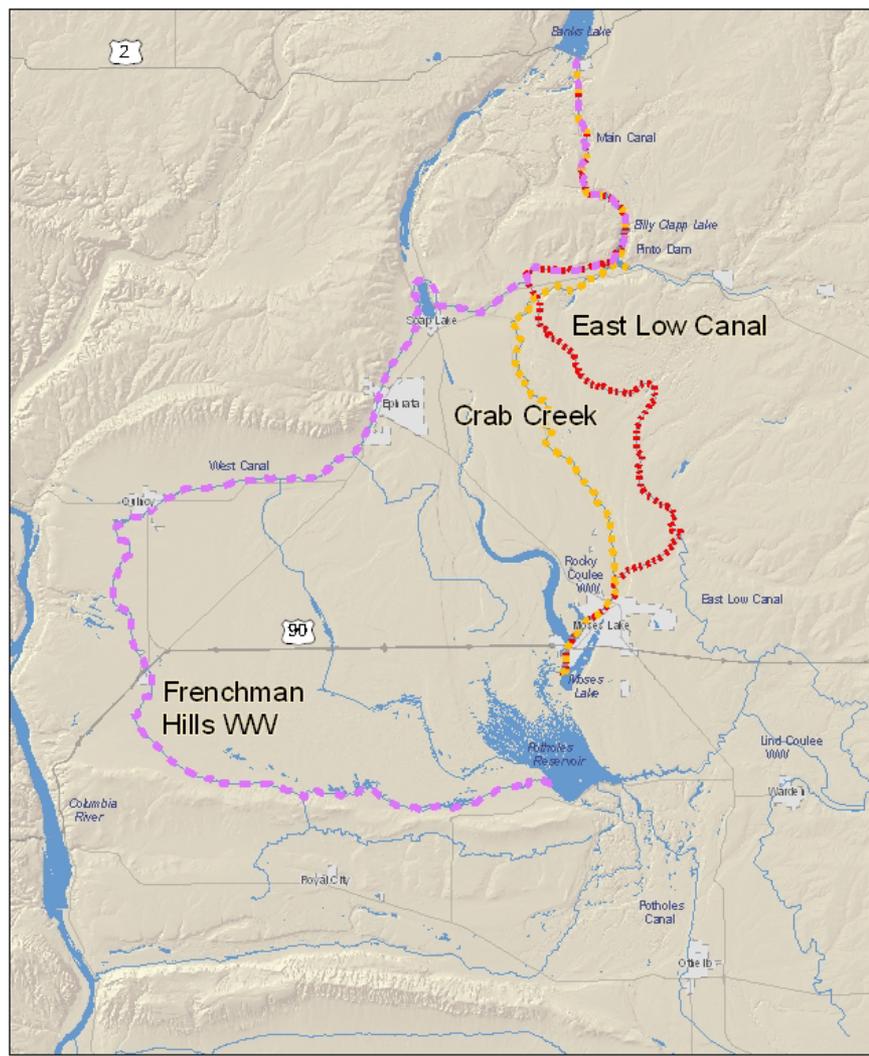
## Supplemental Feed Route

- Move  $\frac{1}{4}$  to Supplemental Feed Route
- 85,000 Ac/Ft
- Increase Reliability of System



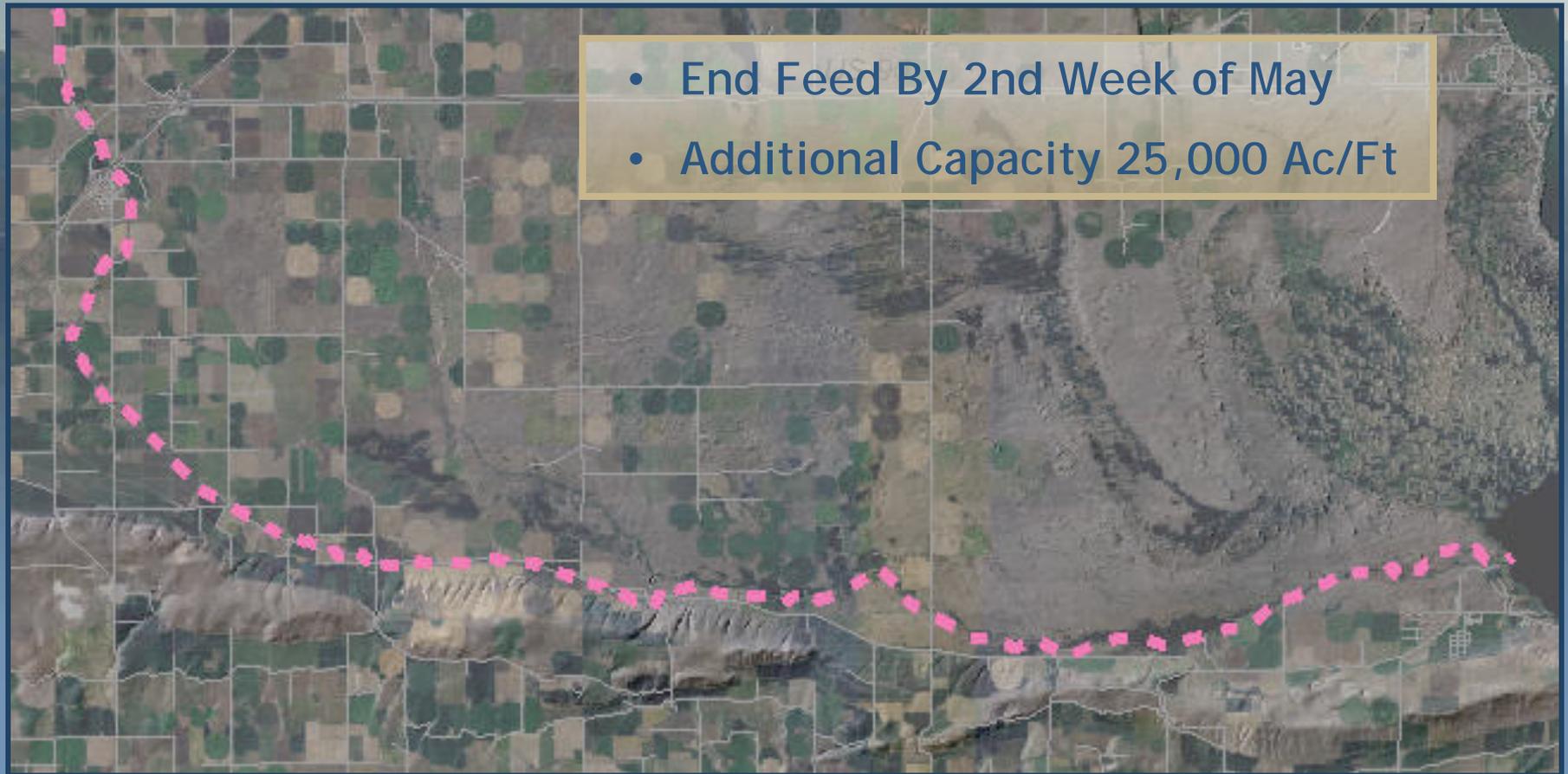
# Supplemental Feed Routes

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



- Feed Routes**
- Crab Creek
  - East Low Canal / Roddy Coulee WW
  - Frenchman Hills WW

# Frenchman Hills Wasteway



# Crab Creek

## Annual Flow or Spring Flow

### Capacity - Annual

- 100/500 cfs
- 126,000 Ac/Ft

### Capacity - Spring

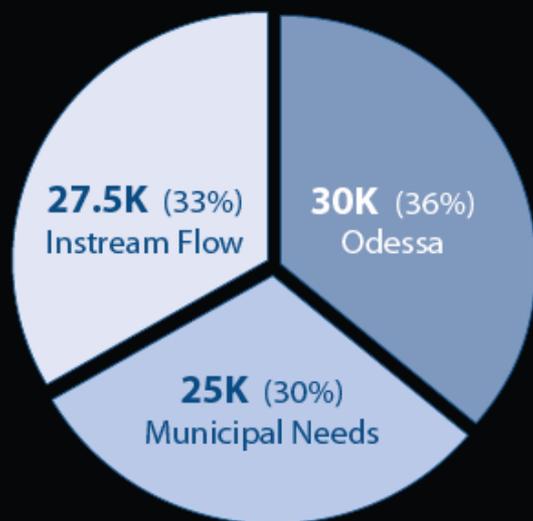
- 500 cfs
- 54,000 Ac/Ft



## Lake Roosevelt Incremental Storage Releases

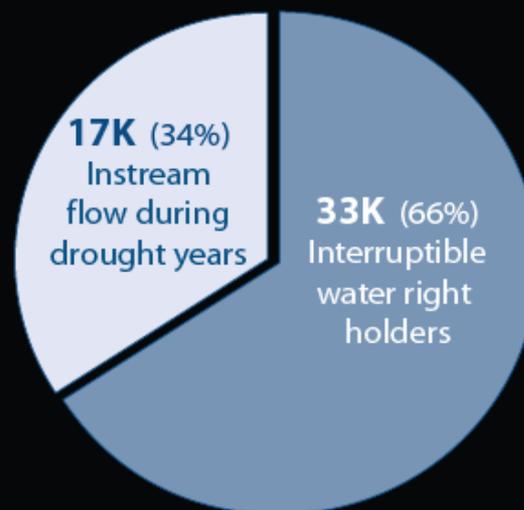
Operational change of 1 foot annually and 1.8 feet during drought

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



**82.5K Acre-Feet**

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



**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**

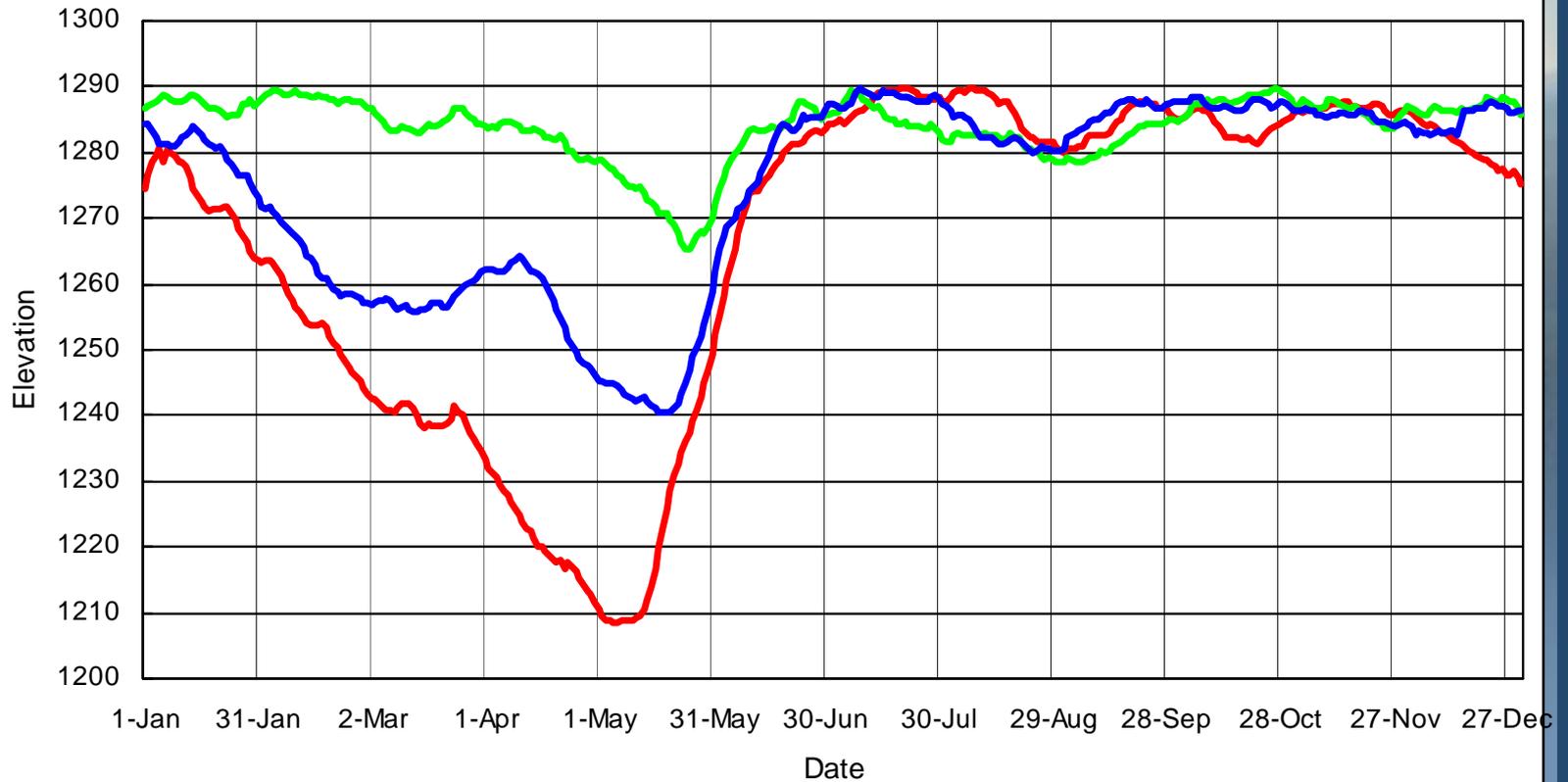
## **Release Scenarios for Drought - *under development***

- **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**

# PEIS & SEPA Supplemental EIS

- 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)

# August 31

## Lake Roosevelt Levels under CWP

Water Year	BiOp (msl)	CWP (acft)	Level (msl)
Average (or greater)	1280	82,000	1278.92
Below Average	1278	82,000	1276.91
Drought	1278	132,000	1276.24 (4%)

# 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 EIS**
- **Prepare and release final supplemental EIS**
- **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