

# **PNWS-AWWA**

## **2008 Annual Spring Conference**

### **Columbia River Basin Water Management Program**

Presented by

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# Columbia River Water Supply Puzzle

- **596 pending water right applications, some for over 15 years**
- **Future municipal and agricultural growth depends on adequate supply of water**
- **Tribes depend on fish for cultural and economic prosperity**
- **Recreational and commercial fishing depend on improvements in fish populations**
- **FCRPS Biological Opinion responds to eight endangered of threatened species**
- **National Academy of Science report – additional diversions in July and August not advisable**

# Unraveling the Puzzle

- **Columbia River Initiative intended to resolve long-standing issues DOA in 2005 state legislative session**
- **Executive/legislative “partnership” formed in after 2005 session to seek alternative to the initiative**
- **Legislation passed in 2006 creating Columbia River Basin Water Supply Management (Development) Program**
  - Agreement to move away from debate on science and focus on improvements
  - Balance the needs of people and that of fish
  - Support projects that provide multiple benefits



# Columbia River Basin Legislation

- **Ecology directed to aggressively pursue development of new water supplies for both instream and out-of-stream uses**
- **Significant investment in new storage and conservation**
  - Capital: authorization for bonds of up to \$200 million
  - Operating: \$2.1 million and 15 FTEs
- **2/3 of funds for feasibility and construction of new storage**
  - 1/3 of new storage for improving streamflows to benefit fish
  - 2/3 of new storage for new out-of-stream uses
- **1/3 of funds for conservation for short-term improvement**
- **Legislative reporting on conservation and future water supply and demand**

# Water Supply Development Account - Uses

- **Assess, plan, and develop new storage**
- **Improve or alter existing storage facilities**
- **Implement conservation projects**
- **Any other actions to provide access to new water supplies (e.g. acquisitions, leases, marketing)**



## **Legislative Directives for Implementation Focus**

- **Alternatives to ground water for agricultural users in the Odessa subarea aquifer**
- **Sources of water supply for pending water right applications**
- **New uninterruptible supply for interruptible water rights**
- **New municipal, domestic, industrial and irrigation needs in basin (RCW 90.90.020(3))**

# **Columbia River Basin Water Management Program Implementation (Post-July 2006)**

- **Developed organizational framework**
- **Developed/staffed program**
- **Completed Programmatic SEPA EIS (February 2007)**
- **Initiated major projects**
- **Created grant program/initiated funding cycle**
- **Completed project inventory and first supply and demand forecast**



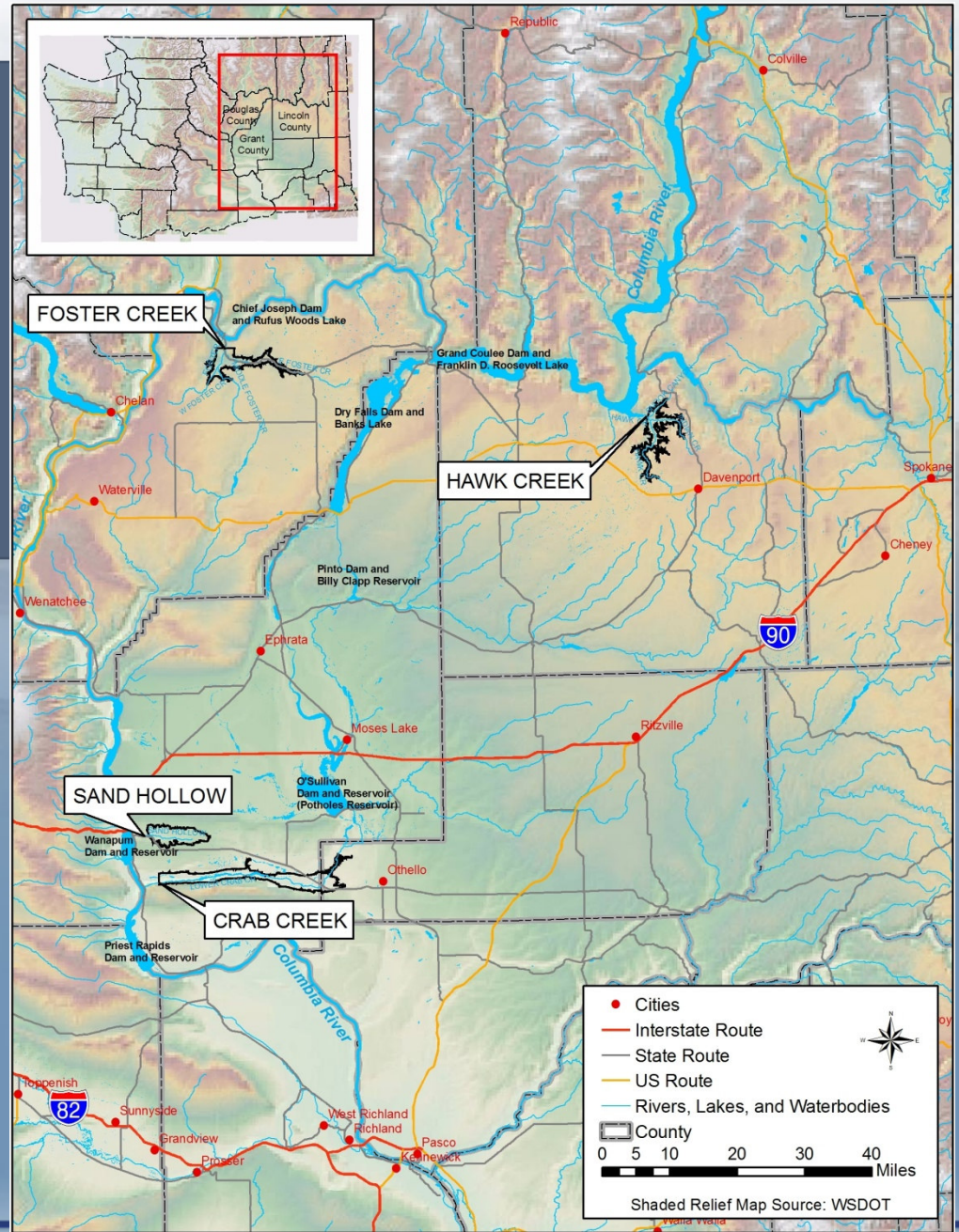
# New Partnerships taking shape

- **The Policy Advisory Group**
- **County Commissioners Forum**
- **Watershed Planning Units**
- **Tribes**
- **Federal/State/Local Government**
- **Oregon/Canada**





# 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

# Water Delivery Alternatives

## Estimated Water Supply Needs

Alternative	Groundwater Acreage Supplied		Estimated Water Supply Needed acre-feet
	acres	% of total	
Alternative A: Construct East High Canal	140,000	100	515,300
Alternative B: North portion of EHC Enlarge & extend ELC	127,300	91	453,200
Alternative C: Enlarge East Low Canal	70,100	50	216,800
Alternative D: Use existing East Low Canal	40,700	29	125,900



# Potholes Supplemental Feed Route

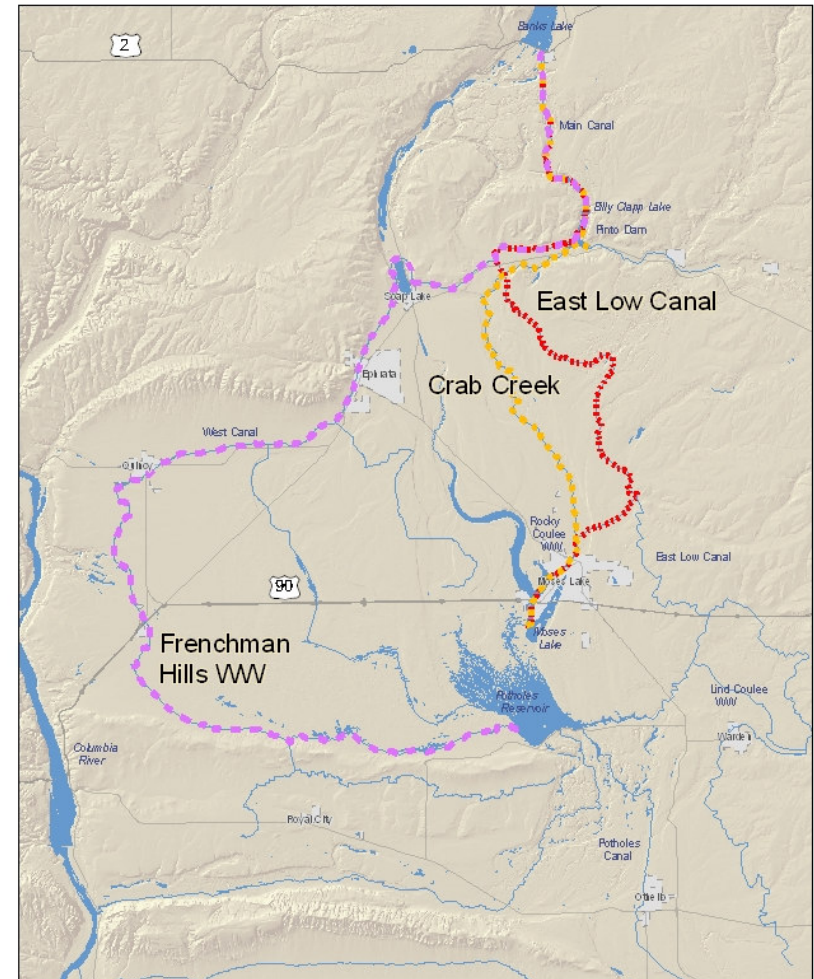
## Current Feed Route

- Average 350,000 Ac/Ft to Potholes Reservoir Annually

## Supplemental Feed Route

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

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







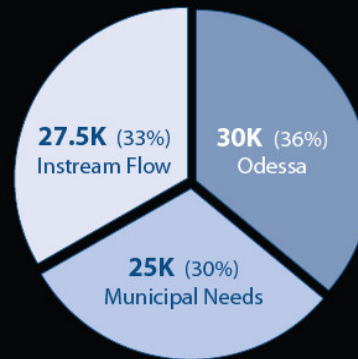


# Lake Roosevelt Storage Release



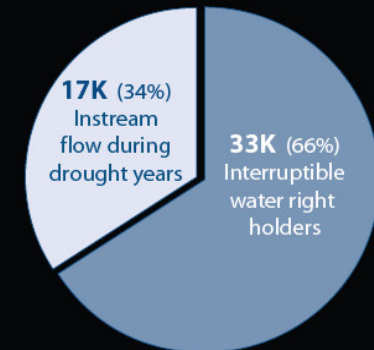
## Lake Roosevelt Incremental Storage Releases Operational change of 1 foot annually and 1.8 feet during drought

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:



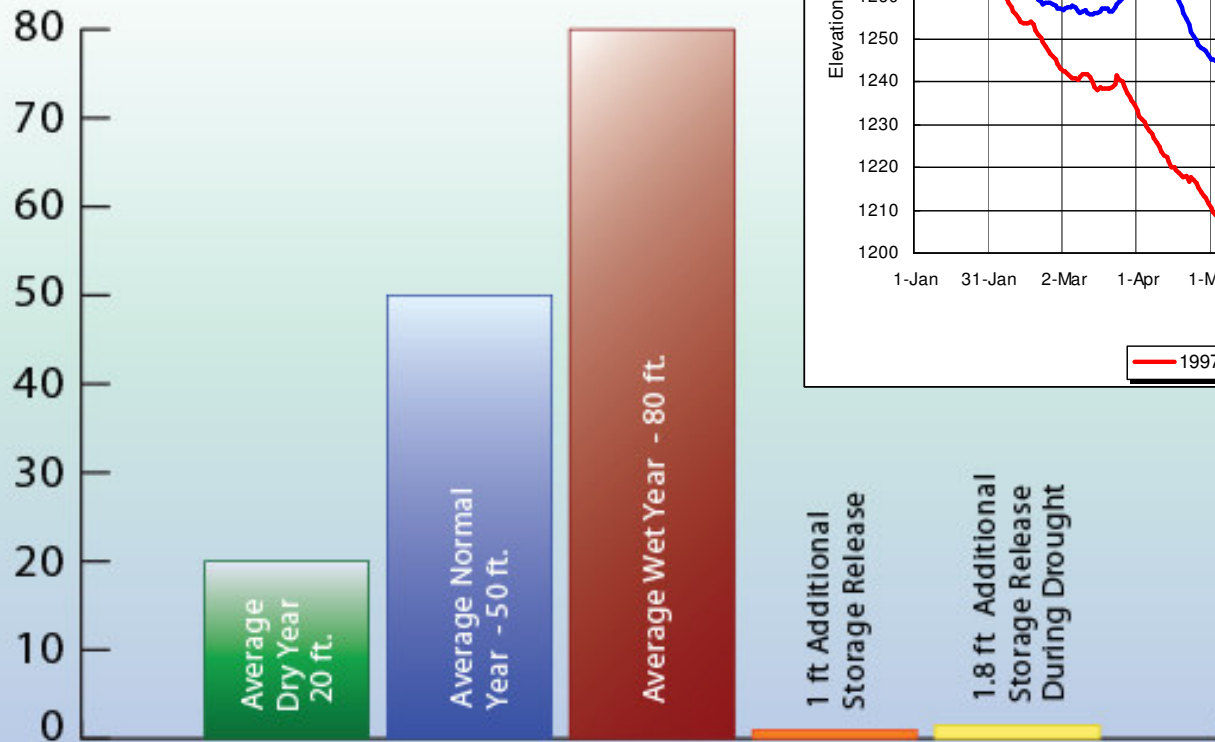
50K Acre-Feet

## Operational change of 1 foot annually and 1.8 feet during drought

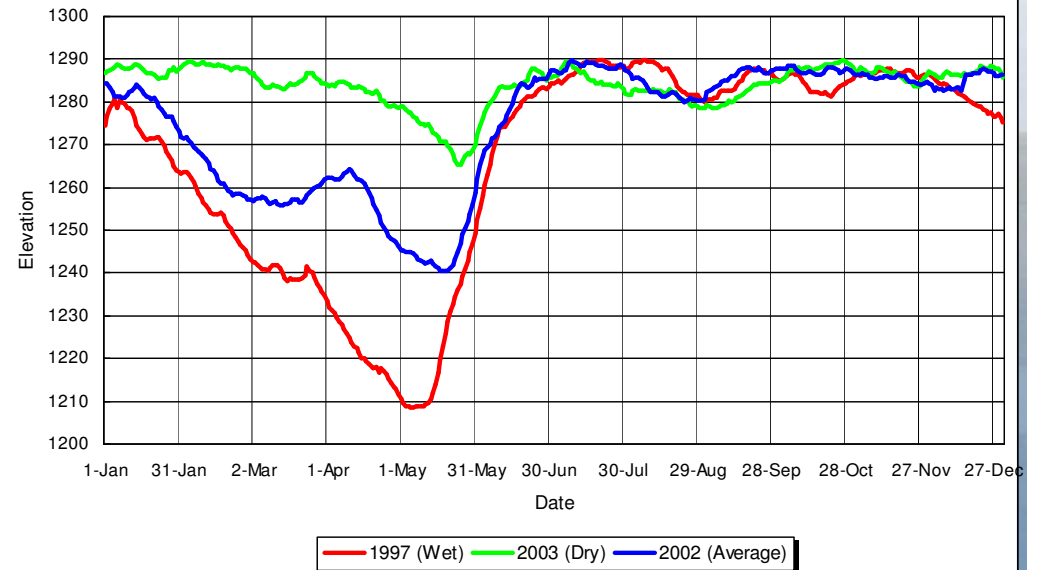
- MOU with Tribes, BoR, Columbia Basin Irrigation Districts - 2004
- Confederated Tribes of the Colville Reservation studies completed - Summer 2007
- Supplemental EIS scoping - December 2007
- Draft Supplemental EIS completed - May 2008
- Final Supplemental EIS completed - August 2008
- Water right decisions - Fall 2008

# Lake Roosevelt Storage Release

## The New Lake Roosevelt Incremental Storage Releases



Lake Roosevelt Water Elevations  
Wet - Dry - Average Water Years

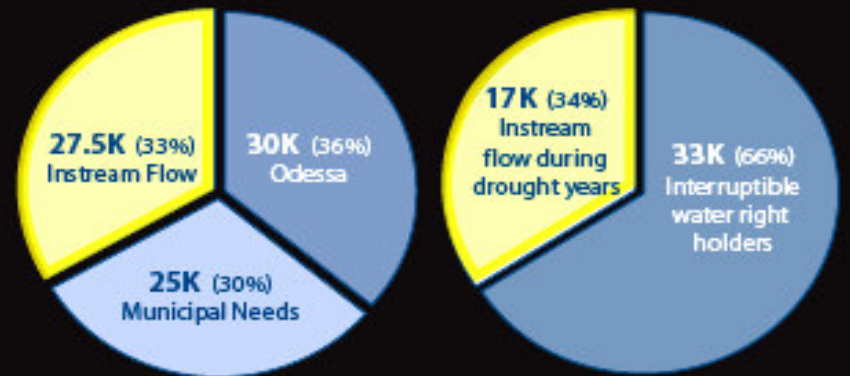




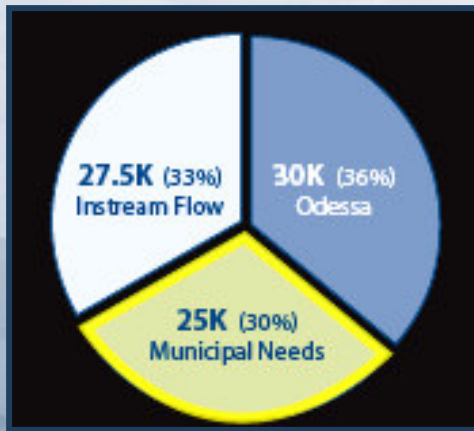
# How Should We Release the Water?

## FDR Release Issues (SEIS Process)

- Choices on Wet, Average, Dry, Drought Years
- Operating Level Constraints (Flood Control, Fish Migration, Recreation)
- Match Supply and Demand?
  - Odessa (Yes)
  - Municipal (No)
  - Drought (Maybe)
- Maximize Fish Benefit?
  - Mirror Fish Releases?
  - Complement Fish Releases?



# Lake Roosevelt Storage Release



## Allocation for Municipal Needs

Demand is year-round, supply is not.

There are approximately 130 municipal and industrial water right users with pending applications located within one mile of the Columbia River.

- 1. Applicants Who Can Physically Capture the Water:** only those municipal and industrial user who have systems in place to withdraw water from the Columbia River would receive water
- 2. Users Whose Water Use Would Impact the Columbia River:** municipalities and industries whose ground water withdrawals reduce flows in the Columbia River
- 3. Based on Priority Needs:** municipalities with moratoriums on development & obligations of the settlement agreement between CELP, Quad-Cities and Ecology
- 4. Achieve Regional Equity:** equitably allocate water between upstream and downstream users



# Lake Roosevelt Storage Release



## Permitting Strategy

### Step 1: Fall 2008 - Two (2) Secondary Use Permits+MOA

- 30,000 ac-ft Odessa and 15,000 ac-ft Instream Flow
- 37,500 ac-ft Instream Flow
- Federal Drought Act, Ecology / Bureau MOA

### Step 2: 2009 Trust Water Decisions

- 15,000 ac-ft + 37,500 ac-ft released for Instream Flow
- Trust Water decisions following release of water for beneficial use
- First Trust Water decision manages 27,500 ac-ft for Instream Flow only
- Second Trust Water decision manages 25,000 ac-ft for Instream Flow and Mitigation of Out-of-Stream M&I permits

### Step 3: 2009 M&I Permits and Drought Permits

# Identified SEIS 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 SEIS Issues, cont'd

- **Recreational impacts:**

- Marinas
- Boat launches/ramps
- Docks
- Swimming areas





# 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**

# Objectives

## **Study feasibility of additional water storage in Yakima Basin for:**

- Endangered and threatened fish
- Irrigated Agriculture
- Municipal water supply



# Status

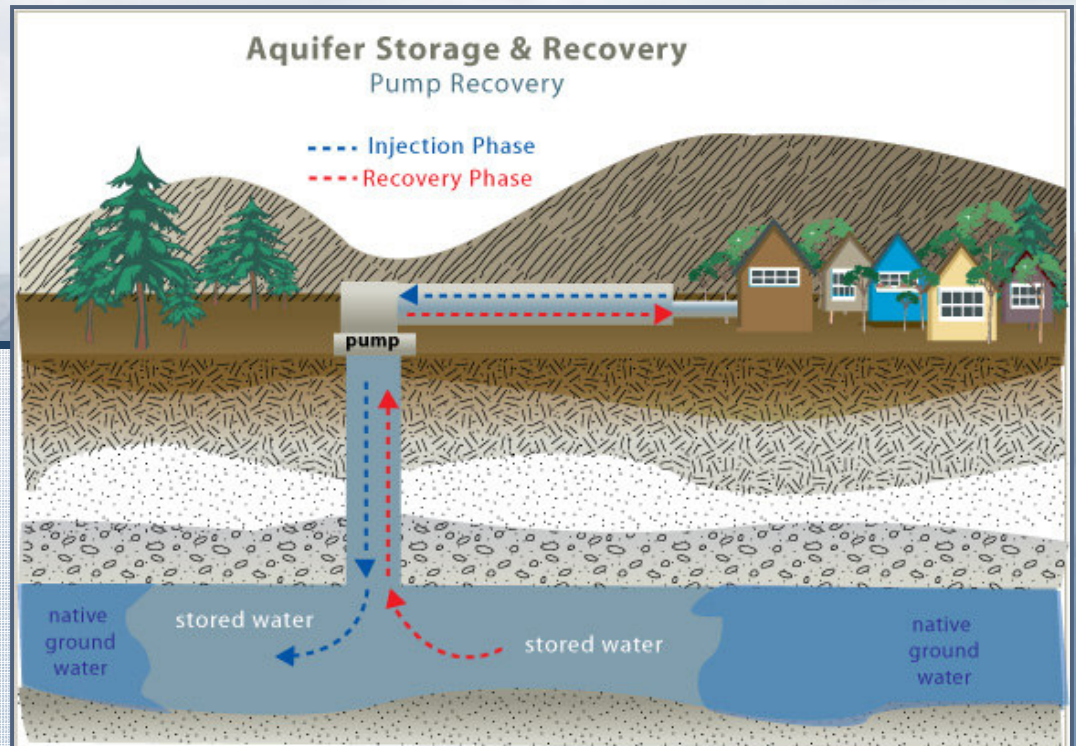
- **Draft EIS/Planning Report Jan. '08**
- **Reclamation/Ecology Joint Alternatives**
  - Black Rock Reservoir
  - Wymer Reservoir
  - Wymer Plus Pump Exchange
  - No Action
- **Ecology only Alternatives**
  - Enhanced Conservation
  - Market Driven Reallocation
  - Aquifer Storage and Recovery
- **Final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

# Kennewick ASR



## Kennewick Aquifer Storage & Recovery

The City of Kennewick has proposed an ASR project that would take water from the Columbia River in the winter and reduce withdrawals in the summer. The pilot will help the state and municipalities develop a better understanding of permitting, economic, and environmental issues associated with increased use of ASR. Ecology is working with the city to develop an appropriate budget to support feasibility, design and construction work.





# Questions