



WASHINGTON STATE  
Department of Ecology

# COLUMBIA RIVER WATER MANAGEMENT PROGRAM

**2006 Legislative Report  
Policy Advisory Group Meeting**

**October 11, 2006**

**Daniel R. Haller, P.E.  
Columbia River Unit  
Washington State Department of Ecology**



# 2006 Legislative Report

## SCOPE

### Columbia River Water Supply Inventory

- First report by November 15, 2006
- Annual inventory updates (RCW 90.90.040)

### Long-Term Water Supply and Demand Forecast

- First report by November 15, 2006
- Updates every 5 years



# Why Do We Need An Inventory?

GOAL = Conservation + Storage  $\longrightarrow$  Future Demand

- Replace ground water use from the Odessa Subarea aquifer
- Approve pending water right applications
- Convert interruptible water rights to uninterruptible water rights
- Issue new municipal, domestic, industrial and irrigation water rights
- 1/3 of new storage for instream flow benefit

"The legislature finds that a key priority of water resource management in the Columbia River Basin in the development of new water supplies that includes **storage** and **conservation** in order to meet the economic and community development needs of the **people** and the instream flow needs of the **fish**." *ESSHB 2860, Section 1(1)*



# Why Do We Need Supply and Demand Forecast?

GOAL = Where are we now?



Where are we going?

## Supply is Dynamic

- Multi-Jurisdictional Regional Water Course (7 States and Canada)
- Multiple Management Goals (Power, Flood Control, Agriculture, Municipal, Fisheries)
- Tributary Changes
- Climate Change

## Demand is Coming

- Pending Applications for New Water Rights
- Conversion of Interruptible Water Rights
- New Pressures in All Demand Sectors



# 2006 Schedule

## TIMING

- July 1<sup>st</sup> – Effective date of legislation
- July 15<sup>th</sup> – Contract executed with consultants
  - Lead = Golder Associates (with Montgomery Water Group / Adolfson)
  - Support = Conservation Commission and WSU
- September 1<sup>st</sup> – Draft Inventory and Forecast to Golder
- **October 2<sup>nd</sup> – Draft Report to Ecology**
- **October 16<sup>th</sup> – Draft Report to Public**
- October 24<sup>th</sup>, 25<sup>th</sup>, November 1<sup>st</sup>, 7<sup>th</sup> – Open Houses / Workshops
- November 15<sup>th</sup> – Final Report to Legislature



## Public Involvement - Inclusiveness and Transparency

- Website Development and Email List Serve
- Presentations
- Watershed Planning Units
- Irrigation and Conservation Districts
- Public Notice and Public Workshops

<http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html>

**October 24, 2006 4:00pm -7:00 pm**  
Big Bend Community College  
Advanced Technologies Education Center ATEC  
Rooms 1870 A and B  
7662 Chanute St. NE  
Moses Lake WA

**October 25, 2006 4:00pm -7:00 pm**  
Agricultural Trade Center  
317 West Astor  
Colville WA

**November 01, 2006 4:00pm -7:00 pm**  
Three Rivers Convention Center  
7016 West Grandridge Blvd  
Meeting Rooms E and F  
Kennewick WA

**November 07, 2006 4:00pm -7:00 pm**  
Coast Wenatchee Hotel  
201 North Wenatchee Ave  
Fuji Room  
Wenatchee WA



## Water Supply - Existing and Future Management Framework

### Existing

- Treaties (Canada, Tribes)
- Power Coordination / Exchange Agreements
- Endangered Species Act
- Interstate Agreements
- Instream Flow Rules

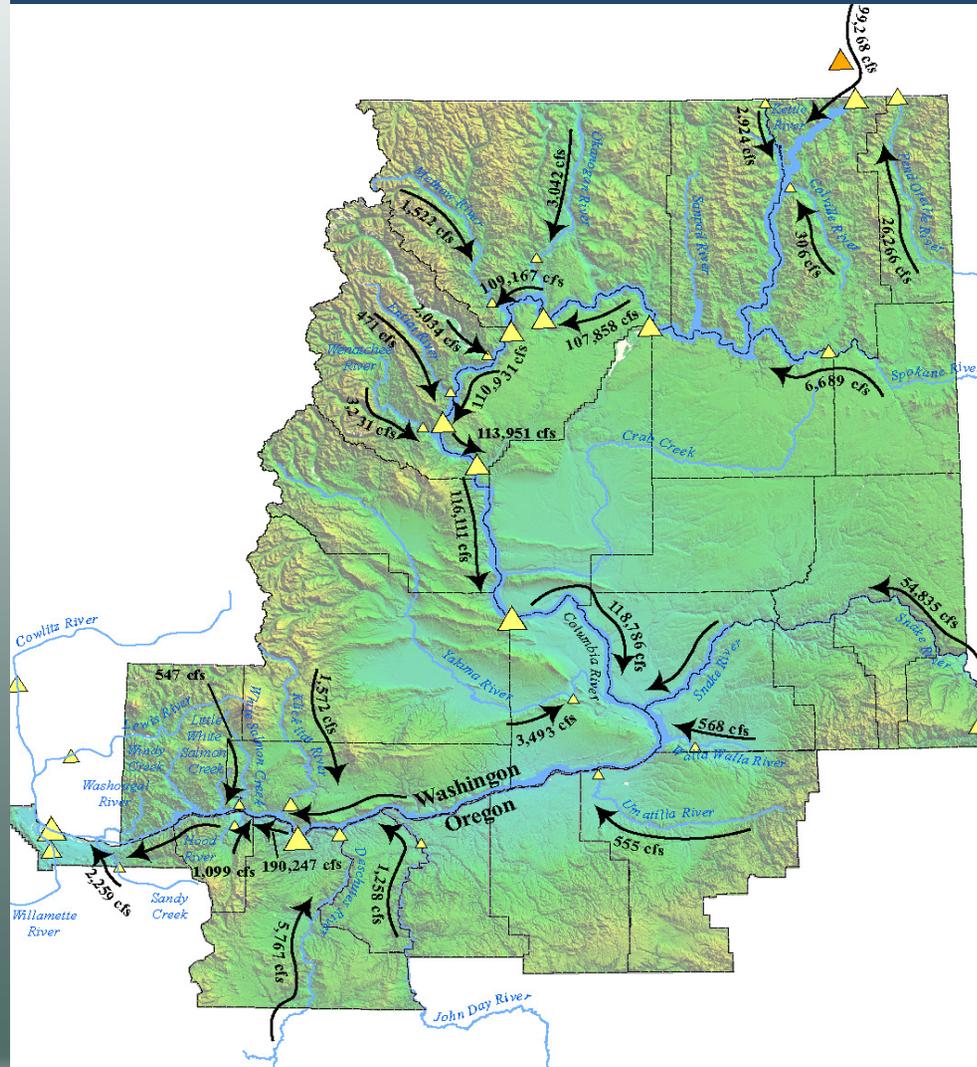
### Future

- Agreement in Principal with the Confederated Tribes of the Colville Reservation
- MOU with Bureau of Reclamation and Irrigation Districts
- Voluntary Regional Agreement with the Columbia-Snake River Irrigators Association





## Water Supply Forecast - Water Budget





## Long-Term Water Supply Forecast - **How Will Things Change?**

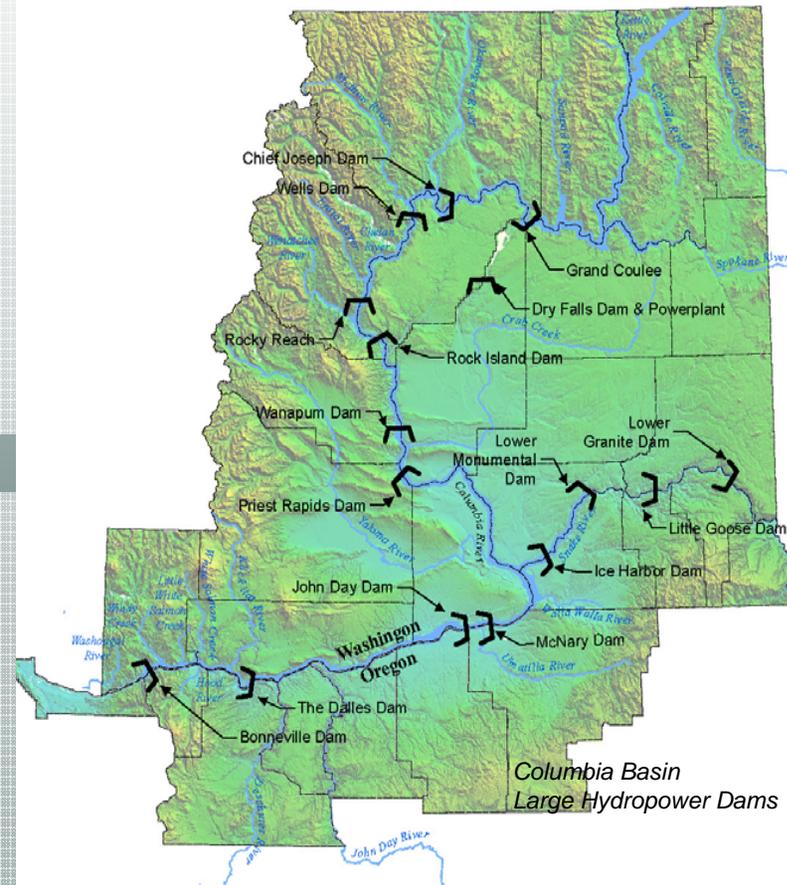
- Changes in Management Framework
- Changes in Regulations
- Changes in Goals
- Changes in Climate

### Goals of this First Report

- Questions vs. Answers

### Goals of 5 Year Updates

- See Changes Coming





## Inventory of Conservation and Storage Projects - **Where Do We Start?**

- Published Materials
  - Watershed Plans
  - Storage Feasibility Studies
  - Irrigation District Conservation Plans
  - Water System Plans
- Un-Published Materials
  - Conservation District Projects
  - Personal Contacts





## Inventory of Projects - **What Do We Want to Know?**

- What is the Project?
- Where is the Project?
- Whose Project is It?
- How Much Water Will Be Saved/Stored?
- How Much Will It Cost?
- Will the Water Benefit the Columbia?
- What is the Source of the Water?





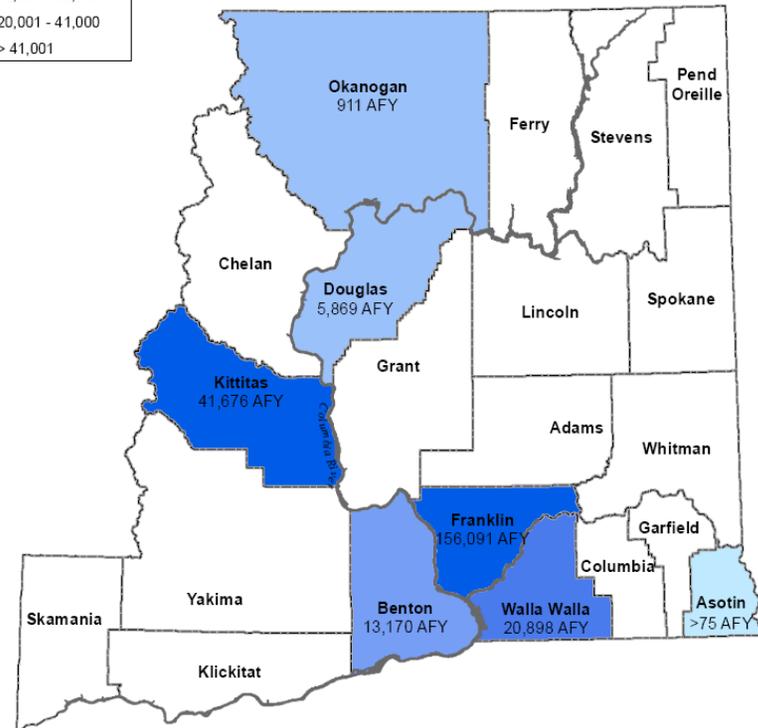
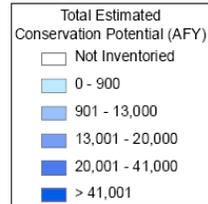
## Conservation Projects Inventory

### Conservation District Inventory Results

- 5,315 projects
- Approximately 530,000 acre-feet savings (consumptive and non-consumptive)
- Total estimated cost of \$663,000,000
- Average cost of \$1,250 per acre-foot

### Irrigation District Inventory Results

- 82 projects
- Approximately 425,000 acre-feet savings (consumptive and non-consumptive)
- Total estimated cost of \$450,000,000
- Average cost of \$1,100 per acre-foot

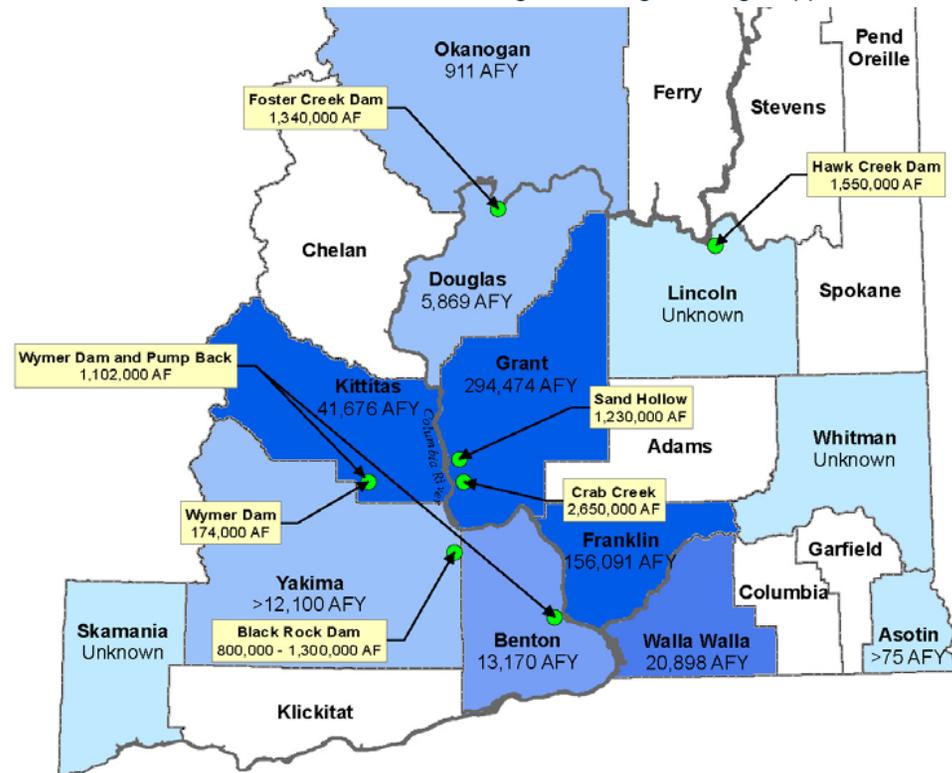




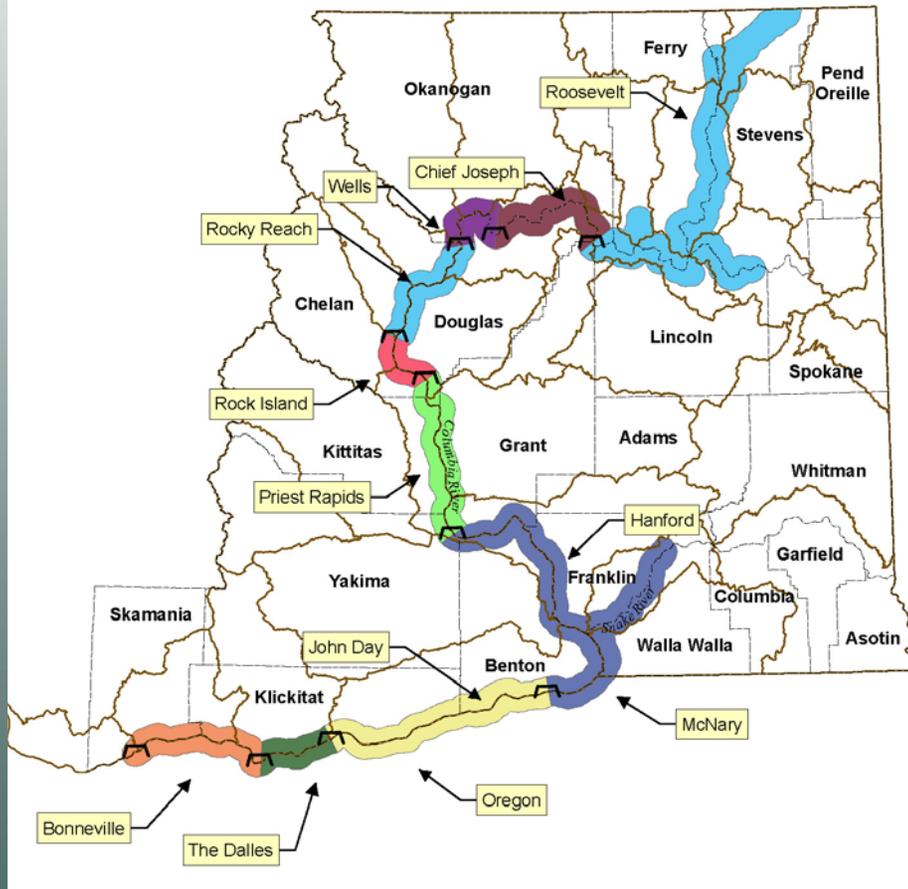
## Storage Projects Inventory

- New large storage facilities (> 1 million acre-feet)
  - 6 Sites, \$1 to \$4 billion
- New small storage facilities (< 1 million acre-feet)
  - Numerous, no cost/volume
- Modification of existing storage facilities
- Aquifer storage and recovery.

Potential Conservation District Water Savings and Large Storage Opportunities



## Demand Forecast - Who's In, Who's Out?



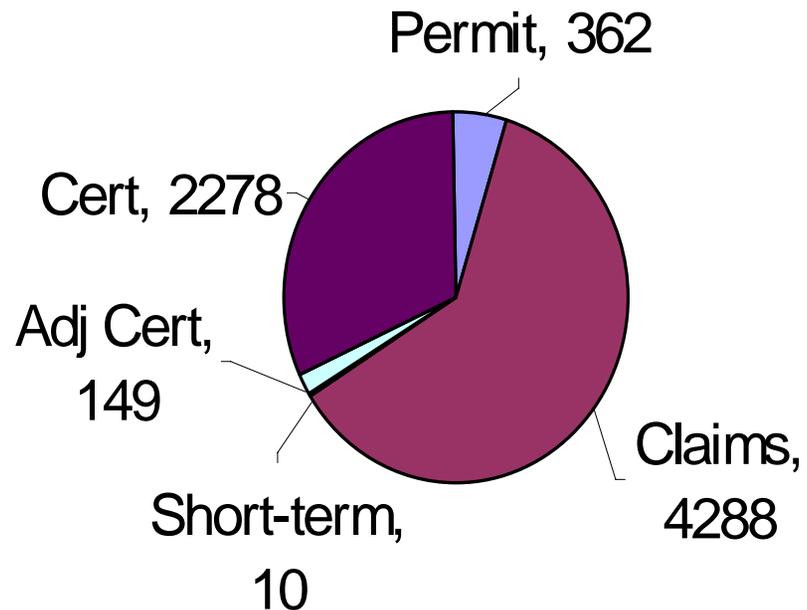
### COLUMBIA RIVER MAPPING PROGRESS





## Future Demand

- Approximately 7000 water rights in WA totaling about 8 million ac-ft per year on paper
- Current use may be < 5 million ac-ft, but uncertain
- 79% Agricultural, 7% muni
- Approximately 465 new applications in Washington (1 million ac-ft)
- Approximately 550 water rights and applications in Oregon totaling 8 million ac-ft per year



*Existing Washington water rights in the Management Zone, excluding those for power and reservoir water*



## Where Could Long-Term Demand Come From?

### Estimated, Known and Unknown

- Population Growth
- Expanding Agricultural Demand (WSU Study)
- Meeting Fisheries Objectives
- 2<sup>nd</sup> Half of the Columbia Basin Project
- Meeting the Needs of the Odessa
- Converting Interruptibles to Non-Interruptible Supplies



## Where Next?

### Improve Inventory and Database (June 30, 2009):

- GIS mapping of actual use through aerial photo delineation;
- Field verification of the aerial photo delineations;
- Water use metering to better understand actual demand;
- Creating electronic images of water right files;
- Incorporating existing stream gage and monitoring sites; and
- Tracking funded conservation projects relative to new permits.



Ecology's Online Well Log Database



## Where Next?

### Improve Inventory and Database (June 30, 2009):

- Expand Coverage of Conservation Projects
- Expand Knowledge on Conservation Projects
- Develop Screening and Ranking Process (PAG / EIS)
- Begin Implementation (Best of the Best, Pilot Projects, Early Opportunities)



Ecology's Online Well Log Database



# Questions?

## GOALS / NEXT STEPS

- **Draft Legislative Report Posted on Ecology's Website on October 16<sup>th</sup>**
- **Public Workshops in October / November**