

# A Look Back: Origins of the Columbia River Program – Legislation

Office of Columbia River Results  
2006–Present



Presented by  
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# COLUMBIA RIVER BASIN WATER MANAGEMENT (DEVELOPMENT) ACT - 2006

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
- 2/3 of funds for study & construction of new storage & pump exchanges
  - 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 all other water supply projects
- Legislative reporting on water supply and demand forecasts



# 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)



# COLUMBIA RIVER BASIN WATER MANAGEMENT (DEVELOPMENT) ACT - 2006

- Alternatives to groundwater for agricultural users in the Odessa subarea aquifer
- Sources of water supply for pending water right applications
- New uninterruptible supply of water for interruptible water right holders
- New municipal, domestic, industrial and irrigation water needs in basin
- Water for instream purposes



# PROGRAM EVOLUTION

- Problem solving focus
- Seeking balance
  - In water allocation
  - Between mainstem and tributaries in program focus
  - In geographic distribution of projects
  - In types of projects
  - Between water quantity and overall aquatic resources



# OCR WATER PROJECTS 2014

**Methow Trust Water Acquisition**  
52 ac-ft Out-of-Stream

**Methow Projects**  
2854 ac-ft Out-of-Stream

**Goose Lake & Nine Mile Flat Storage**  
Ac-Ft TBD

**Pine Creek Acquisition**  
900 ac-ft Out-of-Stream

**Mill Creek Storage**  
11,000 ac-ft Out-of-Stream

**Sullivan Lake Water Supply**  
9,400 ac-ft Out-of-Stream  
4,600 ac-ft Instream

**Lake Roosevelt Incremental Storage Releases**  
All Years:  
55,000 ac-ft Out-of-Stream  
25,000 ac-ft Instream  
Drought Years:  
88,000 ac-ft Out-of-Stream  
44,000 ac-ft Instream

**Peshastin Pump Exchange**  
Ac-Ft TBD

**Peshastin ID Piping**  
360 ac-ft Instream

**Lower Wenatchee Instream Flow Enhancement**  
1,493 ac-ft Instream

**Lincoln CD Passive Rehydration**  
Ac-Ft TBD

**Spokane-Rathdrum ASR**  
105,000 ac-ft Out-of-Stream

**● Completed, Developed**  
**● Active, Under Development**  
Locations are approximate

**Kachess Drought Relief Pumping Plant**  
200,000 ac-ft Out-of-Stream

**Cle Elum Pool Raise**  
14,000 ac-ft Out-of-Stream

**Basin-Wide Habitat Enhancement & Restoration**  
8 Obstructions Removed  
83+ Miles of River Improved  
1,174+ Acres Encompassed

**Teanaway Acquisition**  
50,272 acres of Watershed Protected

**Yakima City ASR**  
10,000 ac-ft Out-of-Stream  
Instream ac-ft TBD

**Manastash Conservation and Tributary Enhancement**  
1,300 ac-ft Instream

**Yakima Basin Integrated Plan**  
226,000 ac-ft Instream & Out-of-Stream (Basin-Wide)

**Other Yakima Basin Integrated Plan Projects**  
226,000 ac-ft Instream & Out-of-Stream (Basin-Wide)

**Sunnyside Valley ID**  
7,815 ac-ft Instream

**White Salmon ASR**  
145 ac-ft Instream

**KID/Red Mountain**  
11,005 ac-ft Instream

**Horse Heaven Hills**  
105,000 ac-ft Out-of-Stream

**Barker Ranch**  
6,436 ac-ft Instream

**Kennewick ASR**  
318+ ac-ft Instream

**508.14 Rule Change**  
Ac-Ft TBD

**Columbia Basin ID Piping**  
26,000 ac-ft Out-of-Stream  
5,000 ac-ft Out-of-Stream

**East Low Canal Widening**  
Conveyance

**Potholes Supplemental Feed Route**  
Conveyance

**Pasco Municipal Supply Improvements**  
5,000 ac-ft Out-of-Stream

**Walla Walla Flow Enhancement**  
30,000 ac-ft Instream

**Port of Walla Walla Leases**  
4,761 ac-ft Out-of-Stream

**Weber Siphon**  
Conveyance

**Odessa Subarea Groundwater Replacement**  
164,000 ac-ft Out-of-Stream

**Region-Wide Projects**

**Conservation Commission Irrigation Efficiency**  
Ac-Ft TBD

**Conservation Commission Retiming**  
Ac-Ft TBD

**Regional Aquifer Storage and Recover**  
Ac-Ft TBD

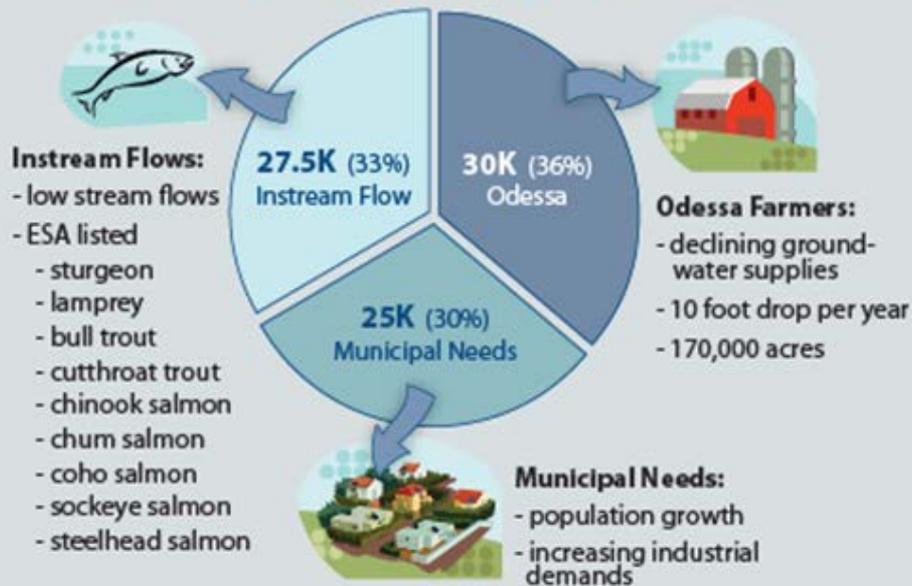
**Donations**  
13,060 ac-ft ac-ft Instream

# LAKE ROOSEVELT STORAGE RELEASES

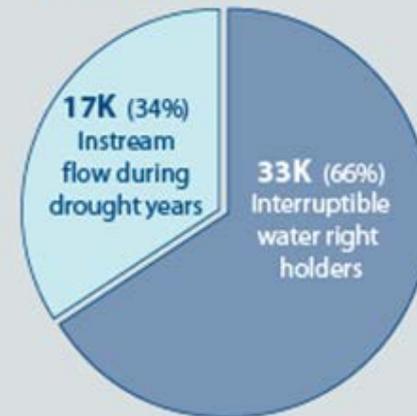
## Lake Roosevelt Incremental Storage Releases

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:



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



# SULLIVAN LAKE REOPERATION

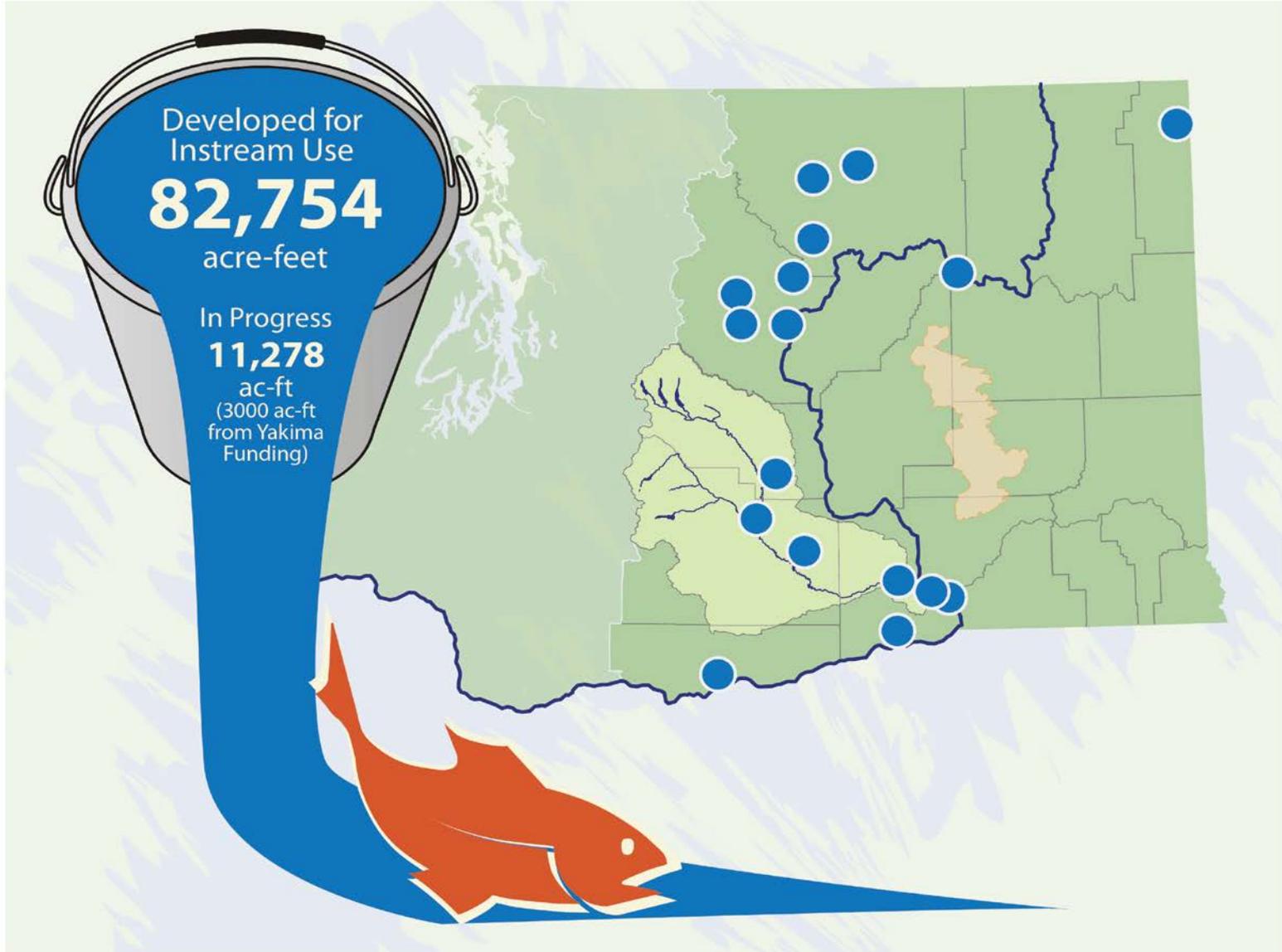
- Converted former Pend Oreille County PUD hydropower facility to water supply operation
- Creates 14,000 ac-ft of additional supply in NE counties
- Schedule: 2013-2015 releases, permits started in 2014



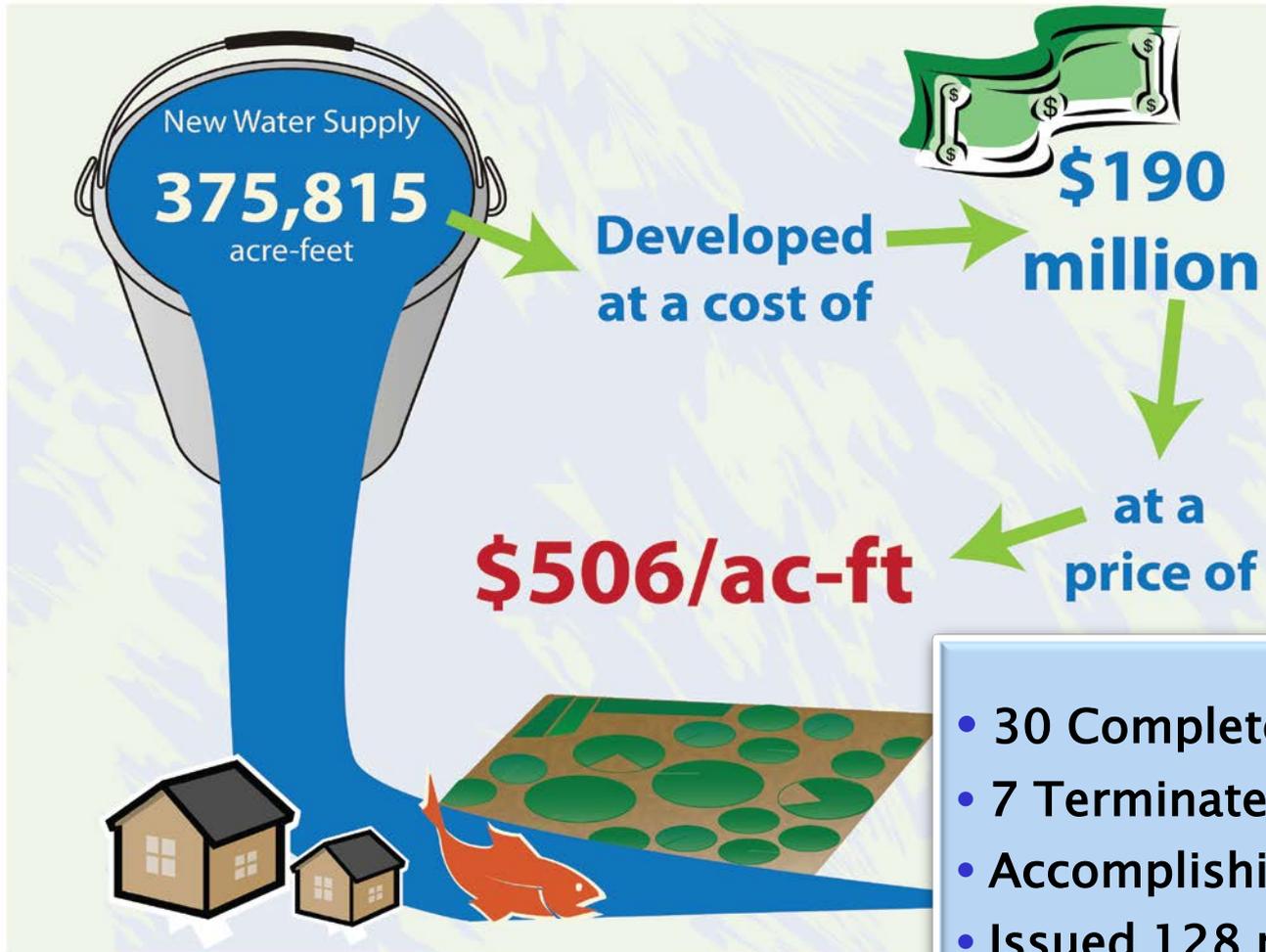
# RESULTS OF STATE INFRASTRUCTURE INVESTMENT ACRE-FEET OUT-OF-STREAM



# RESULTS OF STATE INFRASTRUCTURE INVESTMENT ACRE-FEET INSTREAM



# RESULTS OF STATE INFRASTRUCTURE INVESTMENT COST PER ACRE-FOOT FOR DEVELOPED WATER SUPPLY



- 30 Completed Projects
- 7 Terminated Projects
- Accomplishing all 5 mandates
- Issued 128 permit decisions
- 2 Supply and Demand Forecasts

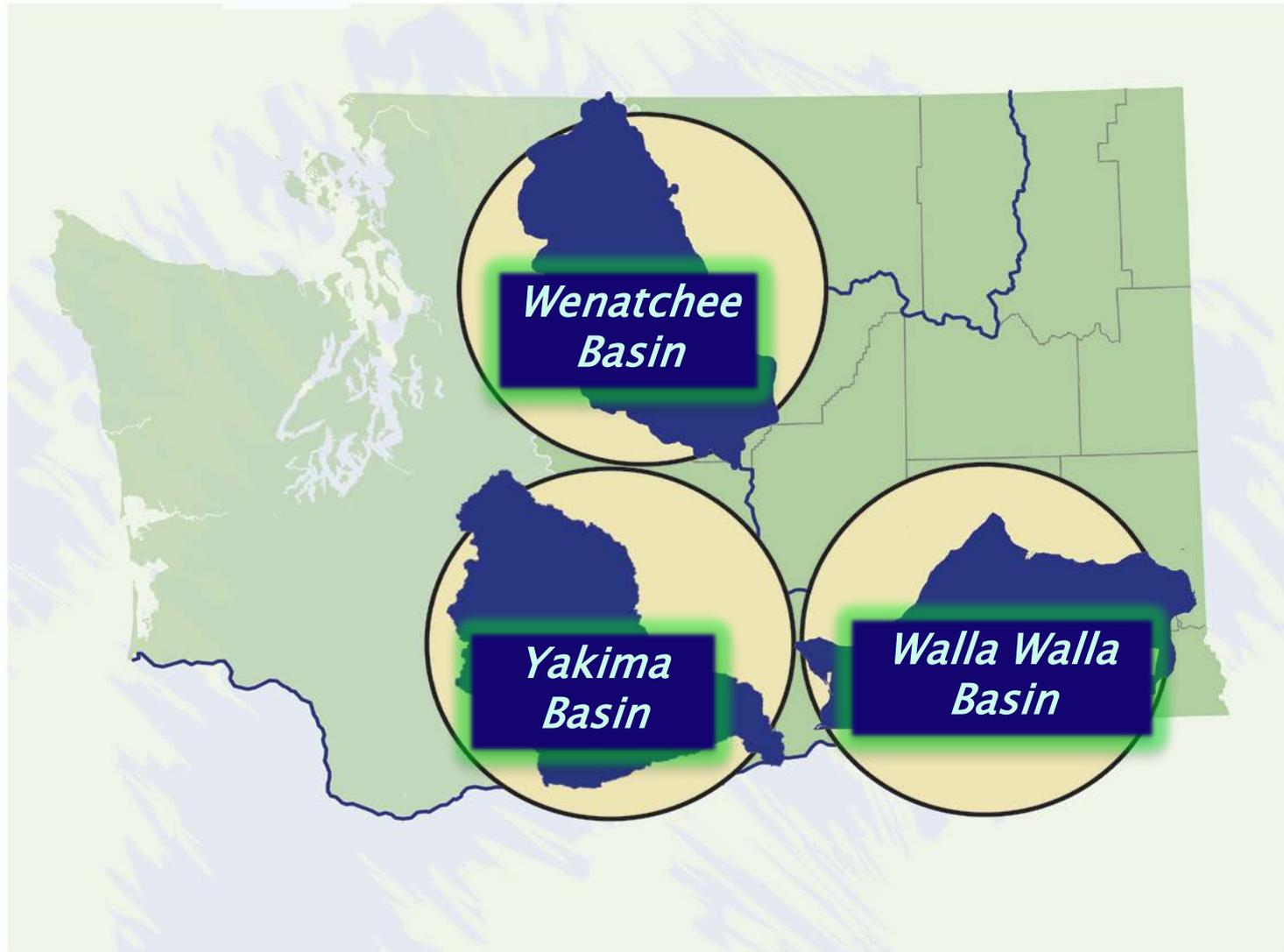
# COLUMBIA RIVER BASIN LONG TERM WATER SUPPLY AND DEMAND FORECAST

Demand Type	Estimated Volume (ac-ft)	Source
2030 Irrigation Demand (new irrigation, Odessa replacement, Yakima Basin supply, and Columbia River interruptibles)	800,000 - 1.1 Million	2011 Supply and Demand Forecast, Odessa EIS, Yakima EIS, and Ecology 2001 Drought Database
2030 New Municipal Demand (including municipally-supplied commercial and self-supplied domestic)	108,500	2011 Supply and Demand Forecast
Unmet Tributary Instream Flows	500,000	Ecology Data, tributaries with adopted instream flows, 2001 drought year
2030 New Hydropower Demand	0	WSU Surveys and Planning Forecast Review

# RESULTS OF STATE INFRASTRUCTURE INVESTMENT HABITAT IMPROVEMENT PROJECTS



# INTEGRATED WATER RESOURCE MANAGEMENT PLANNING PROCESSES





# BUILDING A FUTURE FOR WATER, WILDLIFE AND WORKING LANDS

## YAKIMA RIVER BASIN INTEGRATED WATER RESOURCE MANAGEMENT PLAN

**Reservoir Fish Passage**

Provide fish passage at:

1. Clear Lake
2. Cle Elum
3. Bumping
4. Tleton (Rimrock)
5. Keechelus
6. Kachess

**Enhanced Water Conservation**

1. Implement an agricultural water conservation program designed to conserve up to 170,000 acre-feet of water in good water years.
2. Create a fund to promote water use efficiency basin-wide using voluntary, incentive-based programs. Focus on outdoor uses as top priority.

**Habitat/Watershed Protection & Enhancement**

1. Protect ~70,000 acres of land by acquiring high elevation portions of the watershed and forest and shrub steppe habitat.
2. Evaluate potential wilderness area and wild and scenic river designations to protect streams and habitat.
3. Create a habitat enhancement program to address reach-level floodplain restoration priorities and restore access to key tributaries.

**Market Reallocation**

Employ a water market and/or a water bank to improve water supply in the Yakima River basin. Market reallocation would be conducted in two phases:

The near-term phase would continue existing water marketing and banking programs in the basin, but take additional steps to reduce barriers to water transfers.

The long-term program would focus on facilitating water transfers between irrigation districts. This would allow an irrigation district to follow land within the district and lease water rights for that land outside the district.

**Structural & Operational Changes**

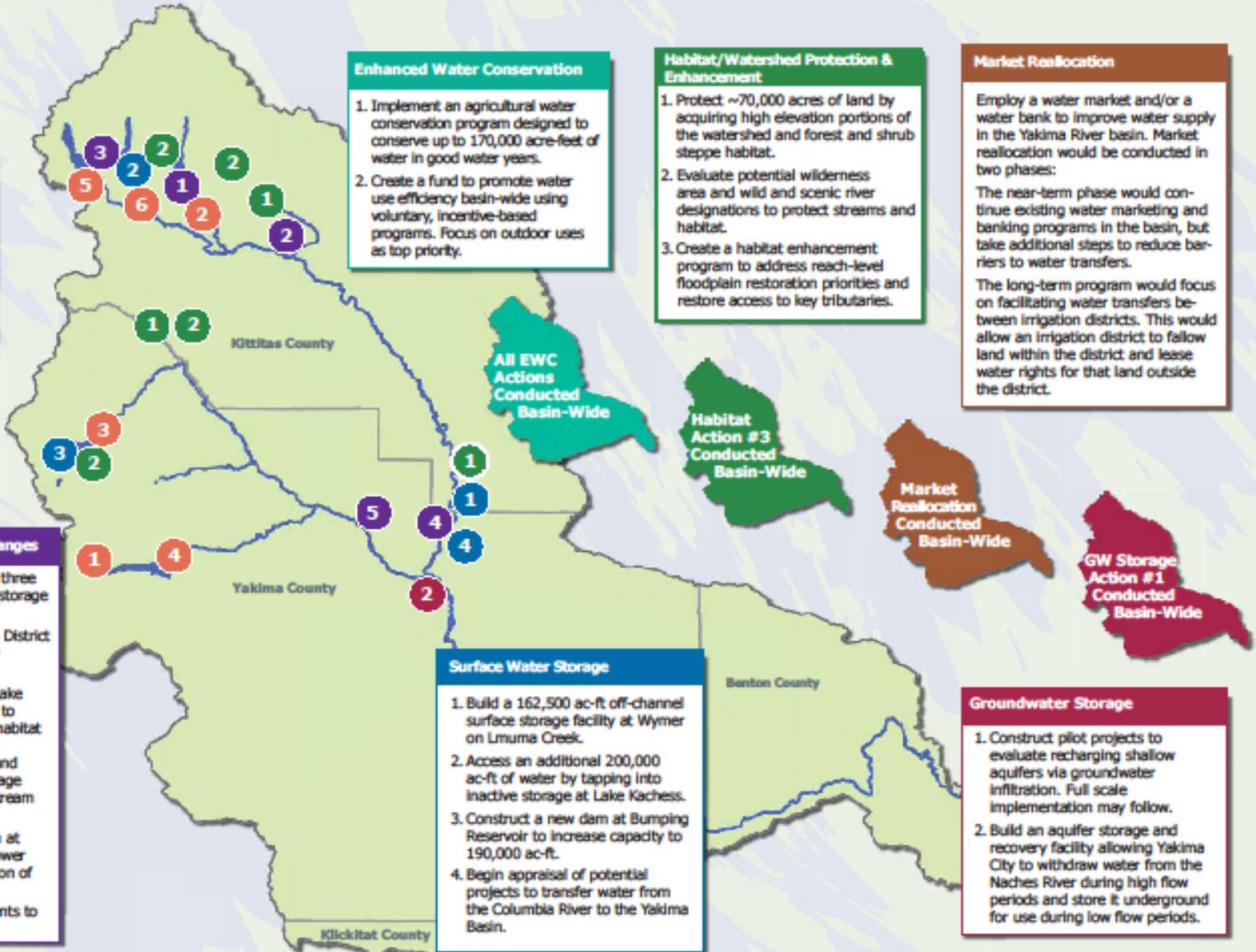
1. Raise the Cle Elum Pool by three feet to add 14,600 ac-ft in storage capacity.
2. Modify Kittitas Reclamation District canals to provide efficiency savings.
3. Construct a pipeline from Lake Keechelus to Lake Kachess to reduce flows and improve habitat conditions during high flow releases below Keechelus and to provide more water storage in Lake Kachess for downstream needs.
4. Decrease power generation at Roza Dam and Chandler power plant to support outmigration of juvenile fish.
5. Make efficiency improvements to the Wapatox Canal.

**Surface Water Storage**

1. Build a 162,500 ac-ft off-channel surface storage facility at Wymer on Lmuma Creek.
2. Access an additional 200,000 ac-ft of water by tapping into inactive storage at Lake Kachess.
3. Construct a new dam at Bumping Reservoir to increase capacity to 190,000 ac-ft.
4. Begin appraisal of potential projects to transfer water from the Columbia River to the Yakima Basin.

**Groundwater Storage**

1. Construct pilot projects to evaluate recharging shallow aquifers via groundwater infiltration. Full scale implementation may follow.
2. Build an aquifer storage and recovery facility allowing Yakima City to withdraw water from the Naches River during high flow periods and store it underground for use during low flow periods.



# Office of Columbia River Water Supply Development - 2014

## Developed



## Near-Term Development (2015-2017)



## Long-Term Development (2017+)



- » Barker Ranch: 6,436 ac-ft
- » Columbia Basin ID Piping: 26,000 ac-ft
- » Donations: 13,060 ac-ft
- » KID/Red Mountain: 11,005 ac-ft
- » Lake Roosevelt: 132,500 ac-ft
- » Lower Wenatchee Piping: 1,493
- » Manastash: 1,300 ac-ft
- » Odessa Subarea: 164,000 ac-ft
- » Peshastin ID Piping: 360 ac-ft
- » Potholes Supplemental Feed Route (conveyance)
- » Pine Creek Acquisition: 900 ac-ft
- » Sullivan Lake: 14,000 ac-ft
- » Port of Walla Walla Leases: 4,761 ac-ft
- » Weber Siphon (conveyance)

- » 508.14 Rule Change: *TBD*
- » Cle Elum Pool Raise: 14,000 ac-ft
- » Columbia Basin ID Piping: 5000 ac-ft
- » Conservation Commission Irrigation Efficiency: *TBD*
- » Kachess Drought Relief Pumping Plant: 200,000 ac-ft
- » East Low Canal Widening: (conveyance)
- » Kennewick ASR: 318+ ac-ft
- » Methow Projects: 2854 ac-ft
- » Pasco Municipal Supply Improvements: 5,000 ac-ft
- » SVID: 7,815 ac-ft
- » White Salmon ASR: 145 ac-ft
- » Yakima Basin Enhanced Conservation: 85,000 ac-ft
- » Yakima City ASR: 10,000 ac-ft

- » Regional Aquifer Storage and Recover: *TBD*
- » Conservation Commission Retiming: *TBD*
- » Goose Lake & Nine Mile Flat Storage: *TBD*
- » Horse Heaven Hills: 105,000 ac-ft
- » Lincoln CD Passive Rehydration: *TBD*
- » Mill Creek Storage: 2,000 to 11,000 ac-ft
- » Peshastin Pump Exchange: *TBD*
- » Spokane-Rathdrum ASR: 105,000 ac-ft
- » Walla Walla Flow Enhancement: 30,000 ac-ft
- » Yakima Basin Integrated Plan Projects: 226,000 ac-ft



**THE OFFICE OF  
COLUMBIA RIVER**  
*Water for Families, Farms, and Fish*

# QUESTIONS?

