

# Office of Columbia River



*Financial Challenges & Budget Updates*  
*Policy Advisory Group*  
*February 11, 2016*



Presented by  
**G. Thomas Tebb**  
Office of Columbia River  
Washington State Department of Ecology

# Today's Challenges - Water for Economic Growth

- Water provides “fuel” to our state’s economy.
- Increase demand for water to support economic activity, yet in many areas of the state supplies are limited.
- Efficient and effective water management is critical to supporting economic growth while protecting senior water rights and the environment.



# 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

# Future Financial Challenges



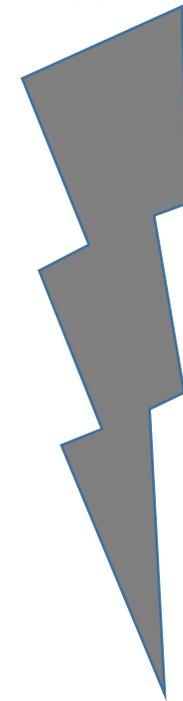
Pay as You Go Model



New Bonding Authority



New Comprehensive Water Bill



# 2015-2017 Capital Budget Proviso

## **Future funding requests from the Columbia River Basin Water Supply Development Account must include:**

- Estimates of the total cost of developing & delivering the water.
- Identify project beneficiaries.
- Estimate of project timeline.
- Estimated public vs. private costs.

# 2015 - 2017 Capital Budget



Project ID	Recipient	FINAL 15-17 BUDGET	Cost/Agency Request
Sullivan Lake (MLIRD Replacement Funding)	Pend Oreille PUD	2,000,000	2,000,000
Coordinated Conservation CBIDs	Various	3,000,000	3,000,000
Icicle Creek Integrated Planning	Chelan County	2,000,000	2,000,000
Walla Walla Integrated Planning	Various (Watershed Council, Port, County, etc.)	1,000,000	1,000,000
New Water Supply projects/studies/lease payments	Various	2,411,623	2,411,623
Fortis B.C. Storage Feasibility	TBD	0	1,600,000
Columbia River Off- Channel Storage	TBD	1,600,000	1,600,000
OCR 2016 Supply & Demand Forecast	Various	1,500,000	1,500,000
MVID Instream Flow Improvement Project	Methow Valley Irrigation District	1,000,000	1,000,000
HHH Switzler Storage - EIS	TBD	1,000,000	1,000,000
Water Acquisitions	Various	1,000,000	1,000,000
Stemilt WRIA 40A storage study	TBD	150,000	150,000
Ecology OCR Staffing	Dept. of Ecology	1,200,000	1,200,000
WDFW support	Dept. Of Fish and Wildlife	500,000	500,000
Walla Walla Lease	Port of Walla Walla	1,000,000	1,000,000
FDR Lease	USBR	1,200,000	1,200,000
	<b>TOTAL =</b>	<b>20,561,623</b>	<b>22,161,623</b>
	<b>OCR 15-17 Capital Budget =</b>	<b>19,000,000</b>	
	<b>Funding GAP =</b>	<b>1,561,623</b>	

# 2017-2019 Capital Budget Development

- **After the 15-17 biennium, approximately \$7 million remains in OCR's bonding authority**
- **How can you help, provide OCR with information regarding:**
  - Readiness to proceed,
  - Proviso information,
  - How a project overlaps with the 2016 Supply & Demand forecast,
  - OCR and/or YBIP directive,
  - Map(s)
- **OCR will be putting together a Columbia River budget and Yakima Basin Integrated Plan budget over the next 4 months**
- **17-19 Agency budget proposal due to OFM in Sept. 2016**

# Office of Columbia River



## *OCR Updates & Achievements Policy Advisory Group February 11, 2016*



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# 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

# Evolving Planning Environment



- Climate Change Uncertainties
- Federal Columbia River Power System Biological Opinion (FCRPS BiOP) Uncertainties
- Supreme Court Cases and Legal Uncertainties
- Improved Regional Collaboration
  - Washington and Oregon
  - Canadian Columbia River Treaty

# A Decade of State Infrastructure Investments

## Office of Columbia River Water Supply Development - 2015

### Developed



- » Barker Ranch: 6,436 ac-ft
- » Columbia Basin ID Piping: 26,000 ac-ft
- » Conservation Commission Irrigation Efficiency: 3,476 ac-ft
- » Donations: 13,060 ac-ft
- » KID/Red Mountain: 11,005 ac-ft
- » Lake Roosevelt: 132,500 ac-ft
- » Lower Wenatchee Piping: 7,823 ac-ft
- » Manastash: 1,300 ac-ft
- » Methow Trust Water Acquisition: 79 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)
- » Yakima City ASR: 10,000 ac-ft

### Near-Term Development (2015-2019)



- » 508.14 Rule Change: TBD
- » Cle Elum Pool Raise: 14,000 ac-ft
- » Columbia Basin ID Piping: 5000 ac-ft
- » 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

### Long-Term Development (2019+)

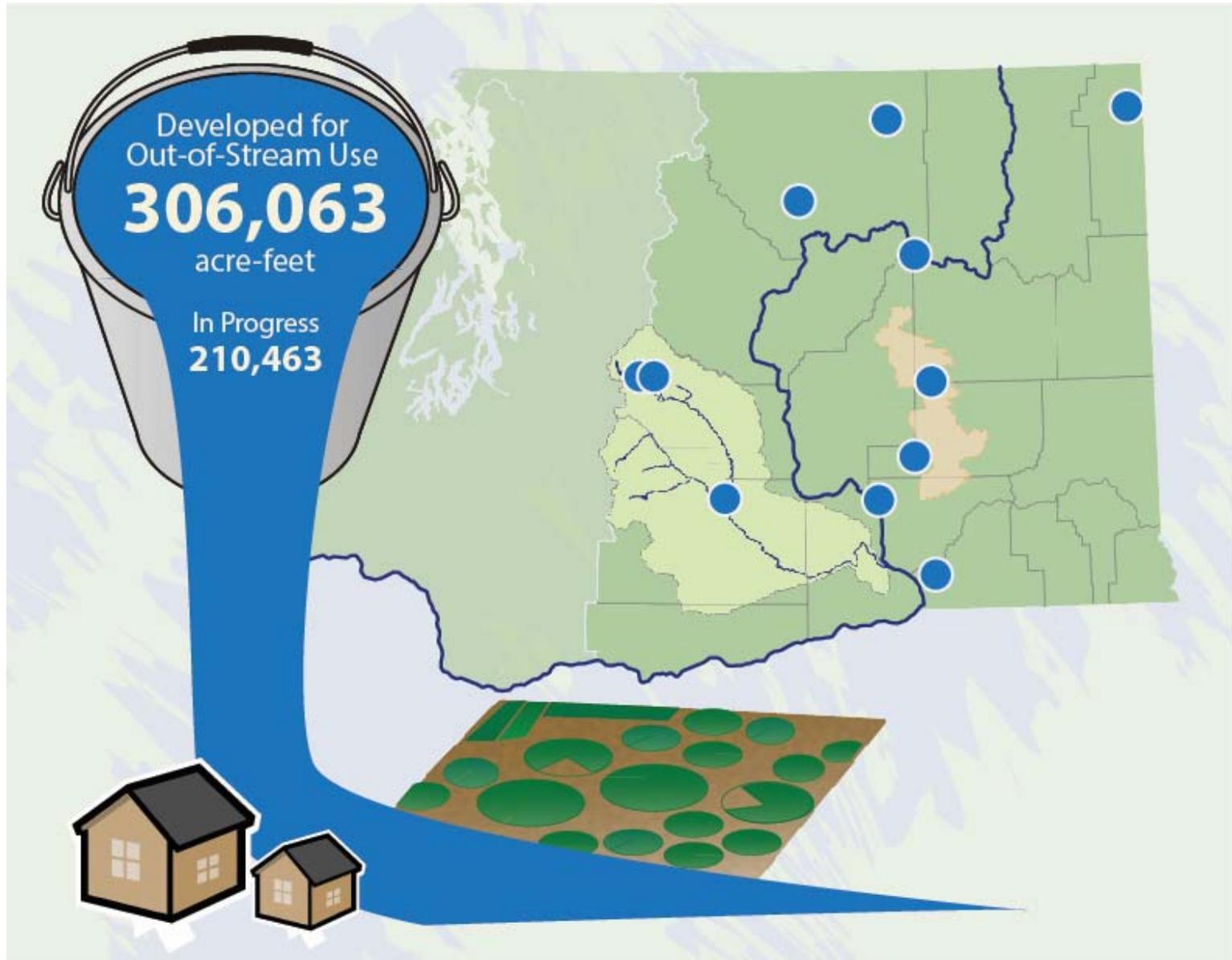


- » Regional Aquifer Storage and Recover: TBD
- » Conservation Commission Retiming: TBD
- » Goose Lake & Nine Mile Flat Storage: TBD
- » Horse Heaven Hills: 105,000 ac-ft
- » Lincoln CD Passive Rehydration: TBD
- » Mill Creek Storage: 2,000 to 11,000 ac-ft
- » Peshastin Pump Exchange: TBD
- » Spokane-Rathdrum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

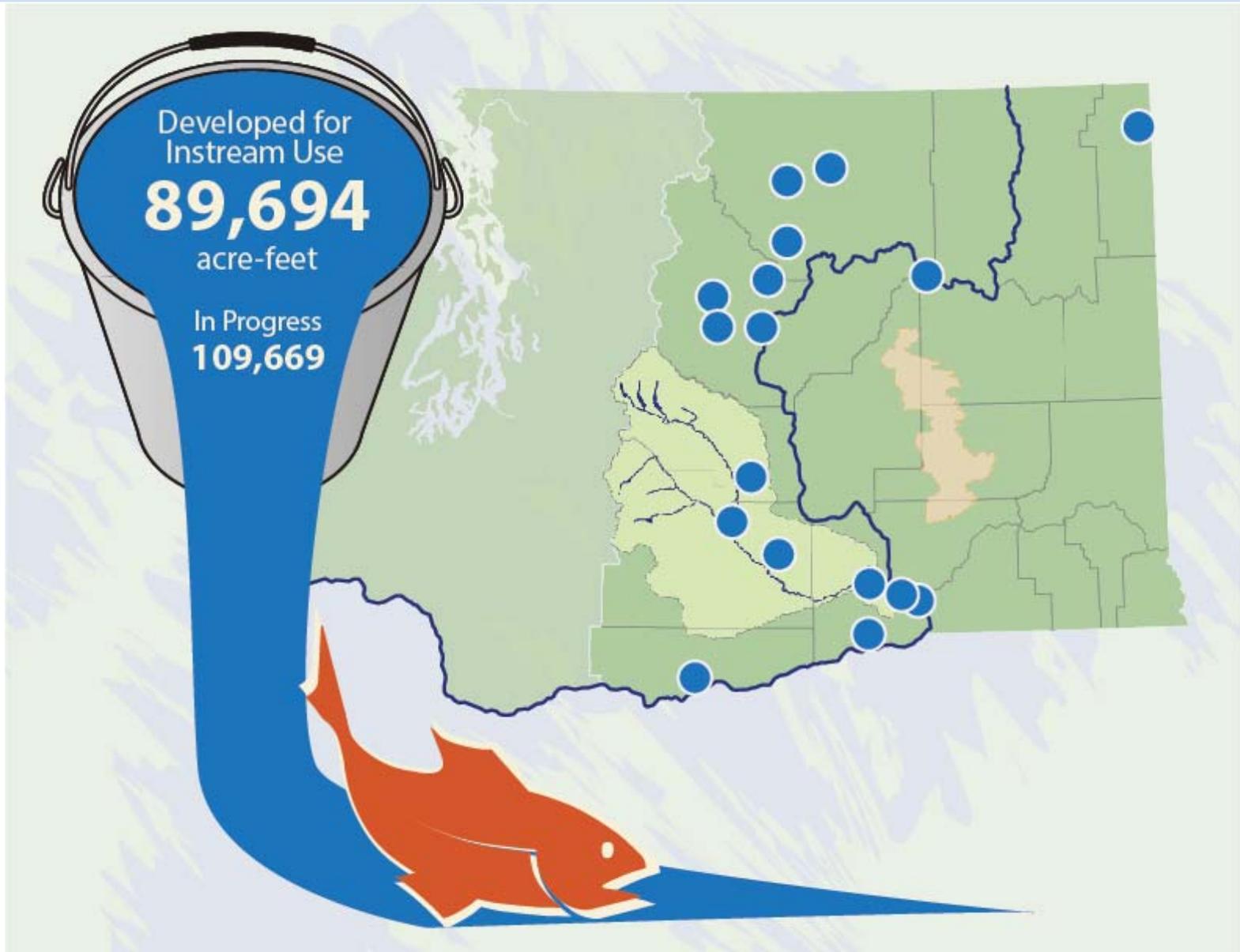


**THE OFFICE OF  
COLUMBIA RIVER**  
Water for Families, Farms, and Fish

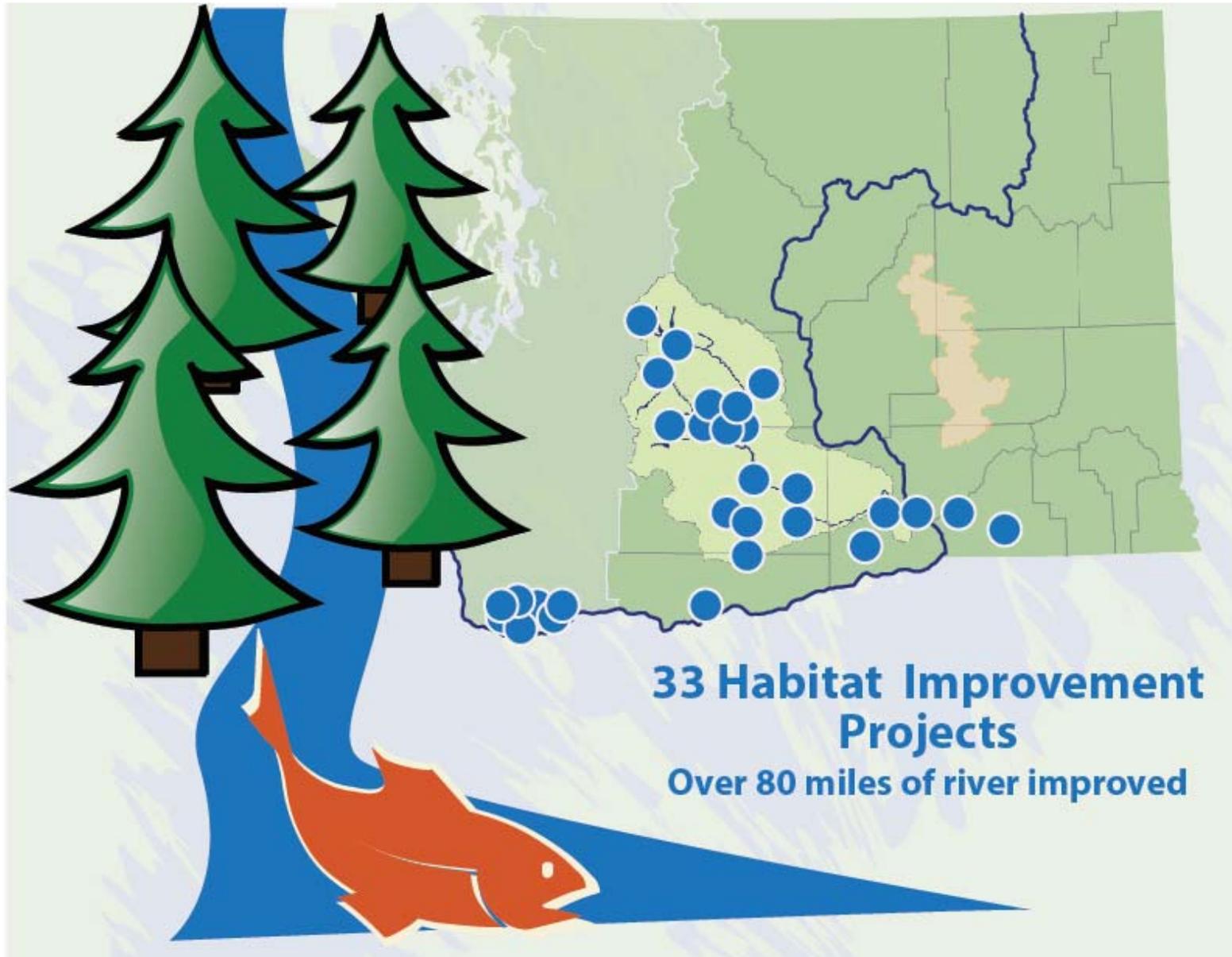
# Acre-Feet Out-of-Stream



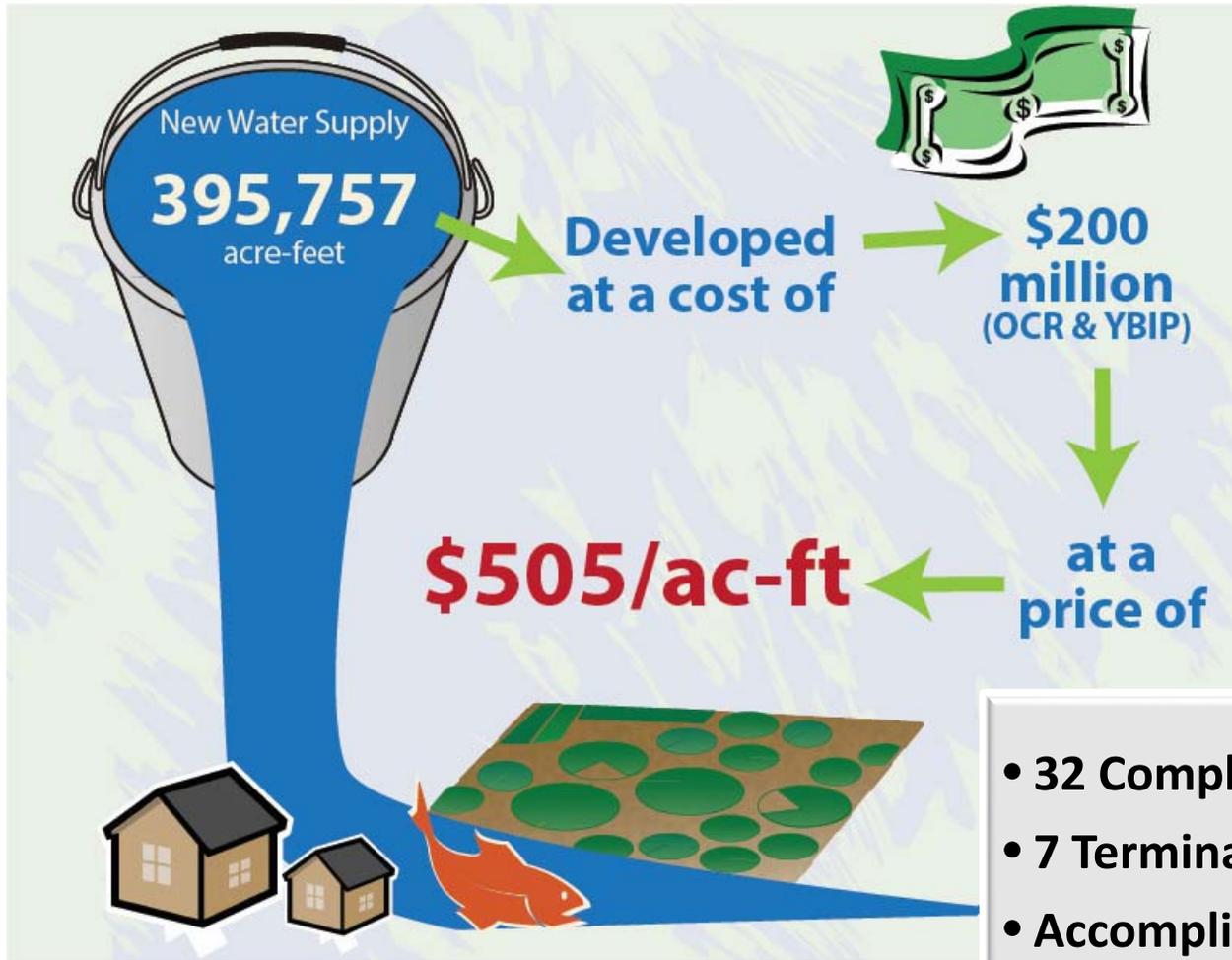
# Acre-Feet Instream



# Results of State Infrastructure Investment Habitat Improvements



# Cost Per Acre-Foot



- 32 Completed Projects
- 7 Terminated Projects
- Accomplished all 5 Mandates
- Issued 148 Permit Decisions
- 2 Supply and Demand Forecasts

# Alternatives to Groundwater for Agricultural Users the Odessa Subarea Aquifer

RCW 90.90.020(3)(a)



Water deliveries  
began in 2015 for  
~ 2,000 acres of  
replacement  
water



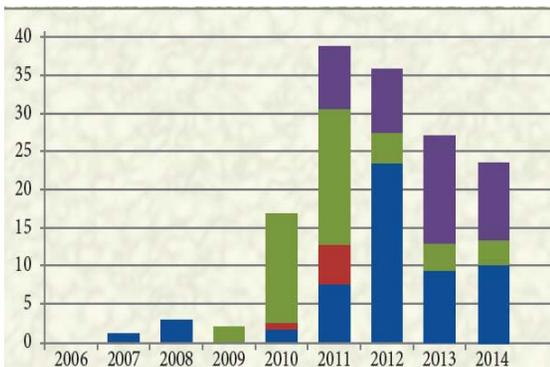
- Lake Roosevelt Incremental Storage and Releases Program (30,000 ac-ft)
- Coordinated Conservation Projects with Columbia Basin Irrigation District (30,000 ac-ft)
- Odessa Groundwater Replacement (164,000 ac-ft)
- Weber Siphon Complex (additional conveyance)
- Potholes Supplemental Feedroute Enhancements and Mitigation (alternate conveyance route)
- East Low Canal Improvements (additional conveyance)
- Lower Columbia Chum Salmon (OGWRP mitigation)

# Develop Sources of Water Supply for PENDING Water Right Applications

RCW 90.90.020(3)(b)



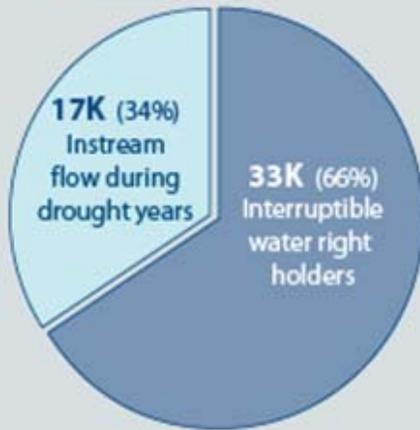
Issued 148 water  
right decisions  
between  
2007 - 2014



- Lake Roosevelt Incremental Storage and Releases Program (25,000 ac-ft Municipal and Industrial)
- Sullivan Lake (9,333 ac-ft Municipal, Industrial, Irrigation)
- Port of Walla Walla Leases (4,761 ac-ft Irrigation)
- Kennewick Irrigation District - Red Mountain AVA Project (2,678 ac-ft irrigation)
- City of Pasco Piping Project (5,000 ac-ft municipal)
- MVID & Town of Twisp (248 ac-ft municipal)
- City of Yakima Aquifer Storage and Recovery Project (10,000 ac-ft municipal)
- Kennewick General Hospital (4,000 ac-ft irrigation)

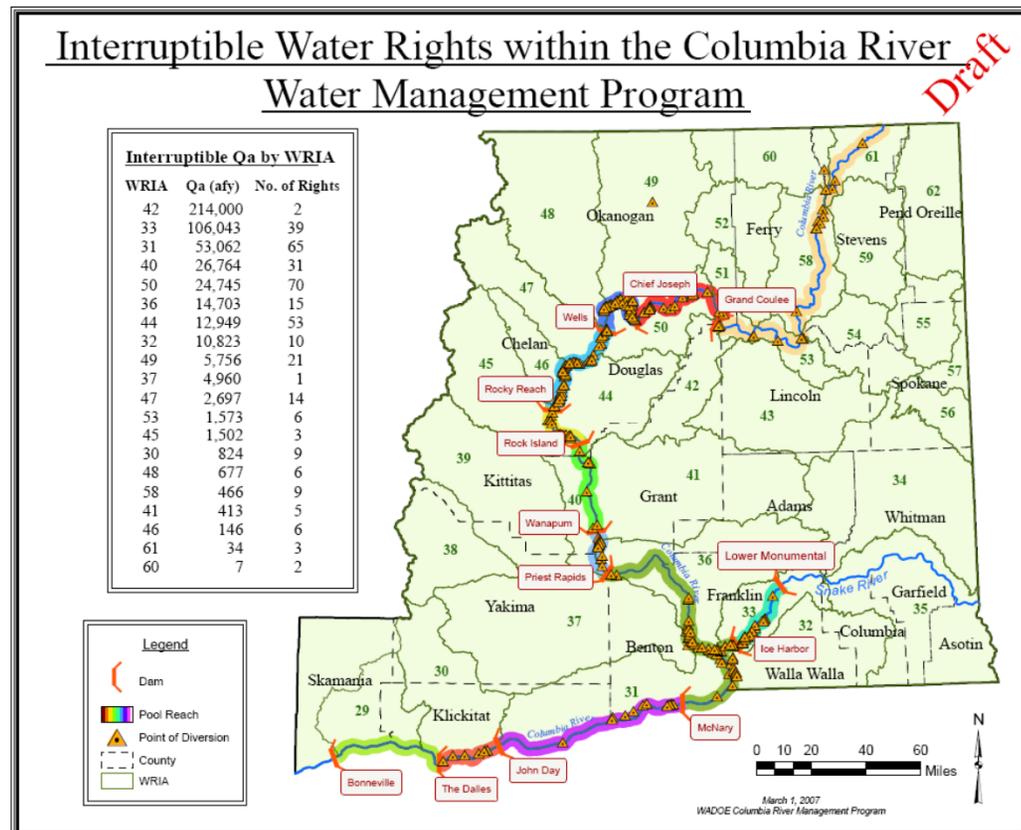
# Find a New Uninterruptible Supply of Water for Interruptible Water Rights on the Columbia River Mainstem RCW 90.90.020(3)(c)

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



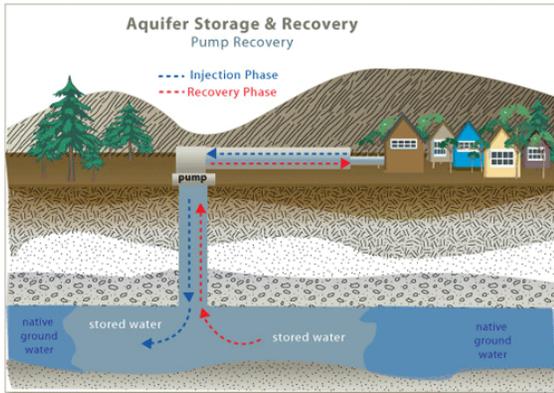
- Lake Roosevelt Incremental Storage and Releases Program (33,000 ac-ft Interruptible )

This water will increase the water available to interruptible users by approximately 11% in total.



# Develop Sources of Water Supply for New Municipal, Domestic, Industrial, and Irrigation Water Needs

RCW 90.90.020(3)(d)



**Many projects in feasibility phase for exploration of water supply development**



- **Icicle Creek Water Resource management Strategy** (4 cfs ag, 5 cfs domestic, 77 cfs instream flow)
- **Aquifer Storage and Recovery Projects** (~500 ac-ft White Salmon, Kennewick)
- **Horse Heaven Hills Water Storage** (44,000 ac-ft Switzler Canyon)
- **Lincoln County Passive Rehydration** (1,000's ac-ft)
- **WAC 508-14 Future Rulemaking** (16,000 ac-ft Pasco Basin)
- **Colville Tribes Cooperative Water Supply Development Projects** (10,000's ac-ft)

# Develop Water Supplies for Instream Flows

## RCW 90.90.020(4)



Twisp River

**89,694 ac-ft  
Instream Flows**

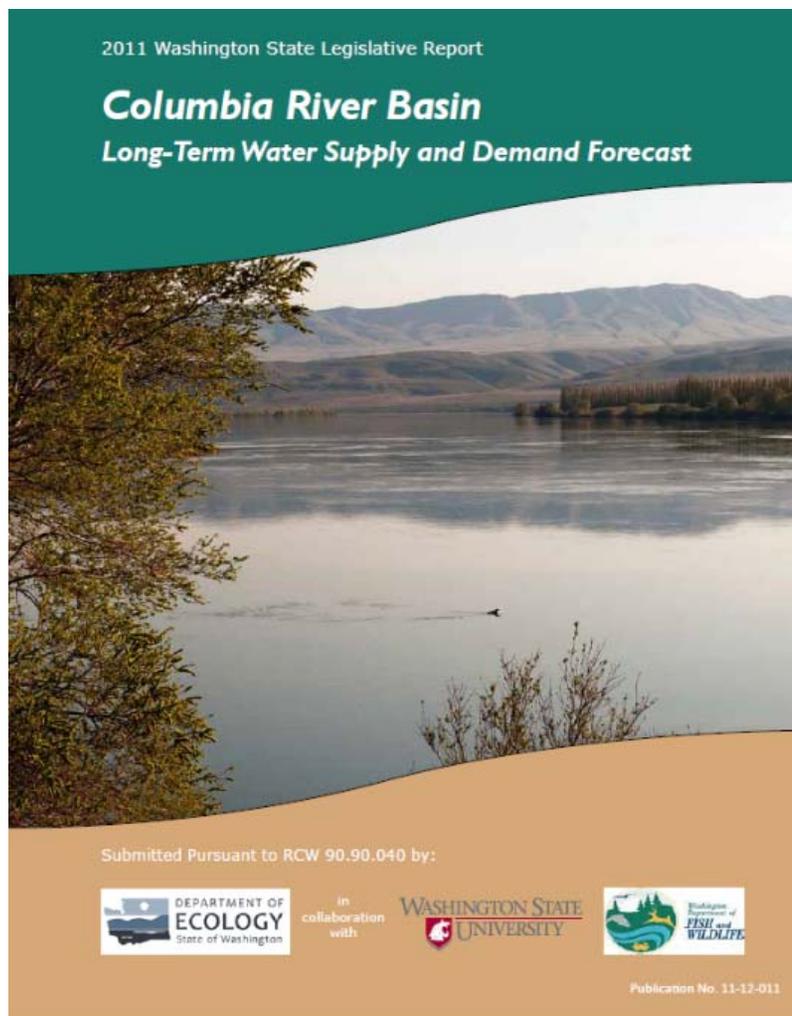


Yakima River

- Lake Roosevelt Incremental Storage and Releases Program (44,500 ac-ft Columbia Mainstem)
- Barker Ranch (6,436 ac-ft Yakima River)
- Conservation Commission Irrigation Efficiencies (3,476 ac-ft basin wide tributaries)
- Pioneer Water Users Piping Project (7,823 ac-ft Wenatchee River)
- Peshatin Irrigation District Piping (360 ac-ft Peshastin Creek)
- Trust water right acquisitions & donations (14,097 ac-ft Mainstem and tributaries)
- Kennewick Irrigation District - Red Mountain AVA project (11,005 ac-ft Yakima River)
- Methow Valley Instream Flow Improvement Project (2,716 ac-ft Twisp River)

# Columbia River Basin Long Term Water Supply and Demand Forecast

## RCW 90.90.040



- Update required every 5 years
- Audience includes policy makers, water managers, general public
- Water and economic modeling
- Predicts agricultural, municipal, instream, and hydropower needs
- Guide for future investment
- Emerging policy issues
- 2016 Forecast
  - Workshops planned in May 2016
  - Final Report due November 2016



# 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

### 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 Rozs Dam and Chandler power plant to support outmigration of juvenile fish.
5. Make efficiency improvements to the Wapatox Canal.

### 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.

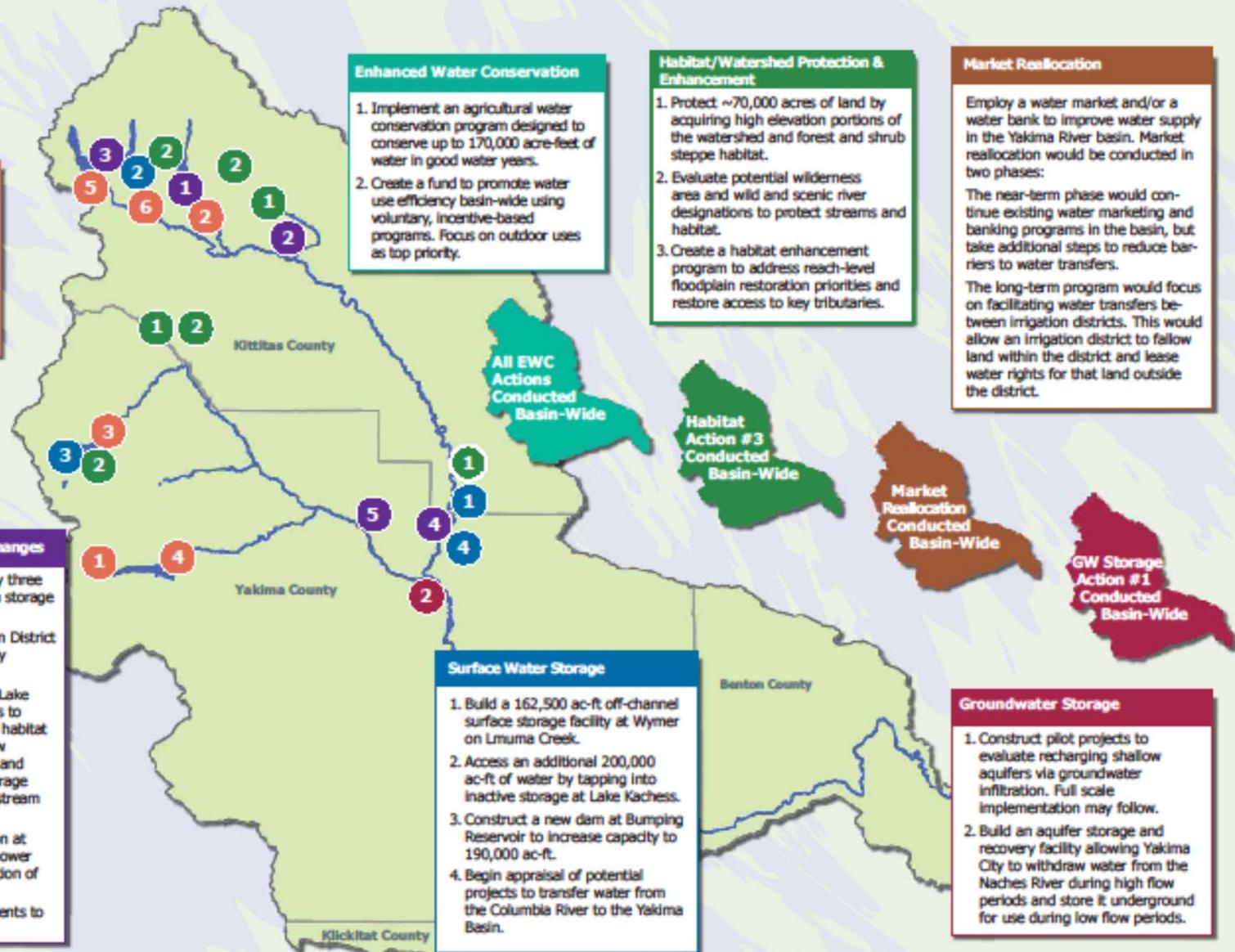
The long-term program would focus on facilitating water transfers between irrigation districts. This would allow an irrigation district to fallow land within the district and lease water rights for that land outside the district.

### 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.



# Yakima Basin Integrated Plan Schedule



- **Final Programmatic EIS**
  - Completed March 2012
  - ROD issued July 2013
- **Framework for Implementation Document**
  - Completed October 2012
- **Formation of DC Leadership Group**
  - Formed Fall 2012
- **State Authorizing Legislation/Capital Budget**
  - Passed June 2013
- **Federal Authorization/Funding**
  - Senator Cantwell's S1694 passed through Senate Energy and Natural Resources committee (November 19, 2015)

# Yakima River Basin Integrated Water Resource Management Plan

RCW 90.38.060

## A Balanced Package of Actions Focusing on Seven Key Elements:

1. Fish Passage
2. Habitat Enhancement
3. Modifying Existing Structures and Operations
4. Surface Storage
5. Market-Based Reallocation
6. Groundwater Storage
7. Enhanced Water Conservation

### To address:

- Climate change, snowpack decline
- Over-appropriation of existing water
- Reduced & extirpated fisheries

## 2013 WA State Budget: \$137 million for YBIP implementation in 2013-2015

- \$99 million - Teanaway purchase
- \$1 million - Teanaway management
- \$32 million - Ecology funded IP projects
- \$5 million - Kittitas County infrastructure/facilities

## 2015 WA State Budget: \$30 million for YBIP implementation in 2015-2017

- \$9.5 million – Water Supply Projects
- \$9,5 million – Fisheries Projects
- \$5 million – Water Conservation Projects
- \$5 million – Habitat Projects
- \$1 million – Groundwater Storage &

## Federal Appropriated Funding

- FY 15 - \$4.27 million – Cle Elum Fish Passage
- FY 16 -17 – funding for fish passage & water supply reliability

# Where do we go from here? What do you want to see?

## Office of Columbia River POLICY ADVISORY GROUP (PAG)

**Dale Bambrick**

NOAA Fisheries – U.S. Dept of Commerce

**Jon Unger**

Oregon Water Resources Dept

**Gregg Carrington**

Chelan County PUD

**Gary Chandler**

Association of WA Business

**Kathleen Collins**

Water Policy Alliance

**Jon Culp**

WA State Conservation Commission

**Jim Fredericks**

U.S. Army Corps of Engineers

**Michael Garrity**

American Rivers

**Leo Stewart**

The Conf Tribes of the Umatilla Indian  
Reservation

**Dawn Wiedmeier**

Bureau of Reclamation

**Tony Grover**

NW Power & Conservation Council

**Matt Watkins**

City of Pasco

**Mike Leita**

Yakima County Commissioner

**Paul Jewell**

Kittitas County Commissioner

**Darcy Nonemacher**

WA Environmental Council

**Darryll Olsen**

Columbia-Snake Rivers Irrigation  
Association

**Ron Walter**

Chelan County Commissioner

**Gary Passmore**

The Conf Tribes of the Colville Reservation

**Lisa Pelly**

Washington Rivers Conservancy

**Rudy Peone**

Spokane Tribe

**Phil Rigdon**

Yakama Nation

**Mike Schwisow**

Columbia Basin Development League

**Perry Harvester**

WA State Dept of Fish & Wildlife

**Craig Simpson**

East Columbia Basin Irrigation District

**Rich Stevens**

Grant County Commissioner

**John Stuhlmiller**

WA State Farm Bureau

**Rob Swedo**

Bonneville Power Administration

# Questions



## Contact:

Tom Tebb, Director  
Office of Columbia River  
(509) 574-3989

## Visit Website at:

[www.ecy.wa.gov/programs/wr/cwp/crwmp.html](http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html)