

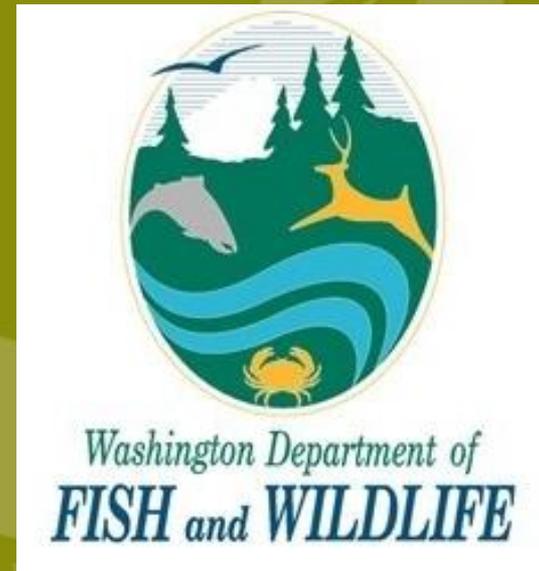
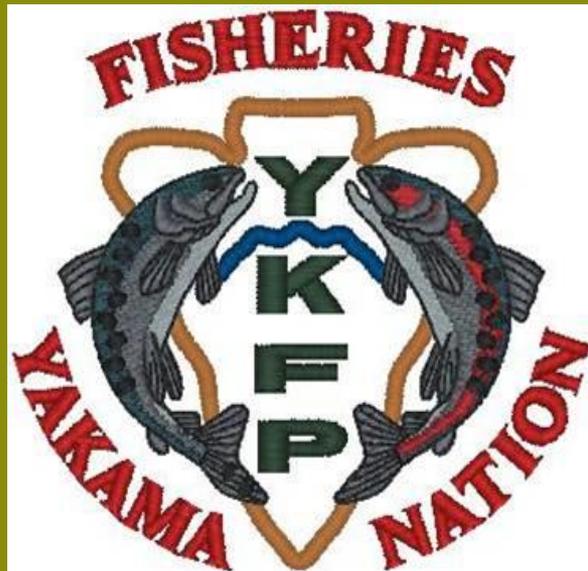
# Yakima-Klickitat Fishery Projects

198812025: Management, Data, and Habitat

199701325: Operations and Maintenance

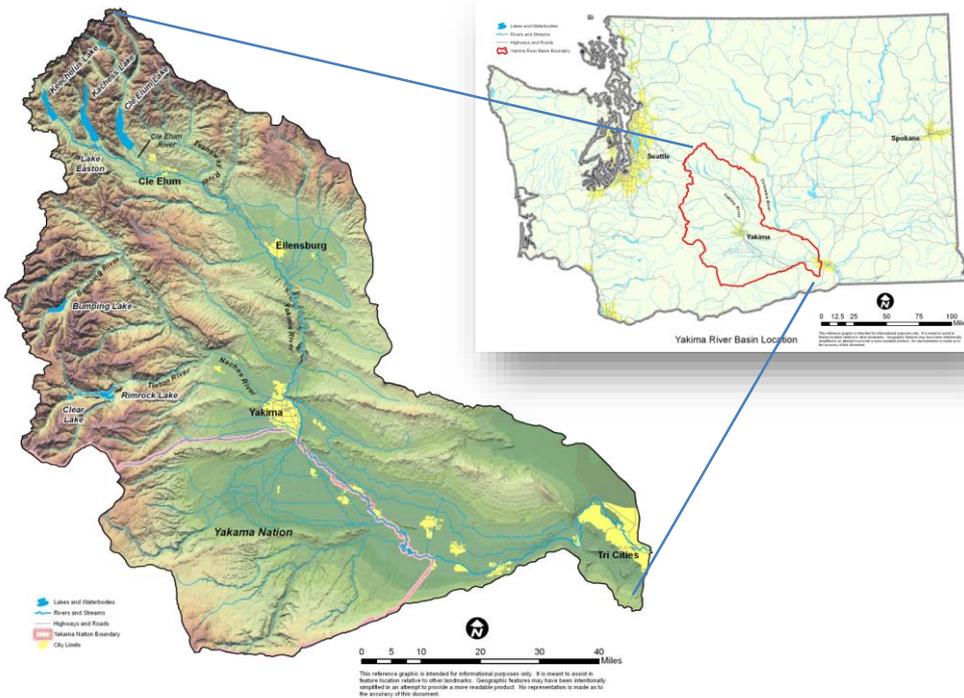
199506325: Monitoring and Evaluation

199506425: *WDFW Policy/Technical*





# The Yakima Basin



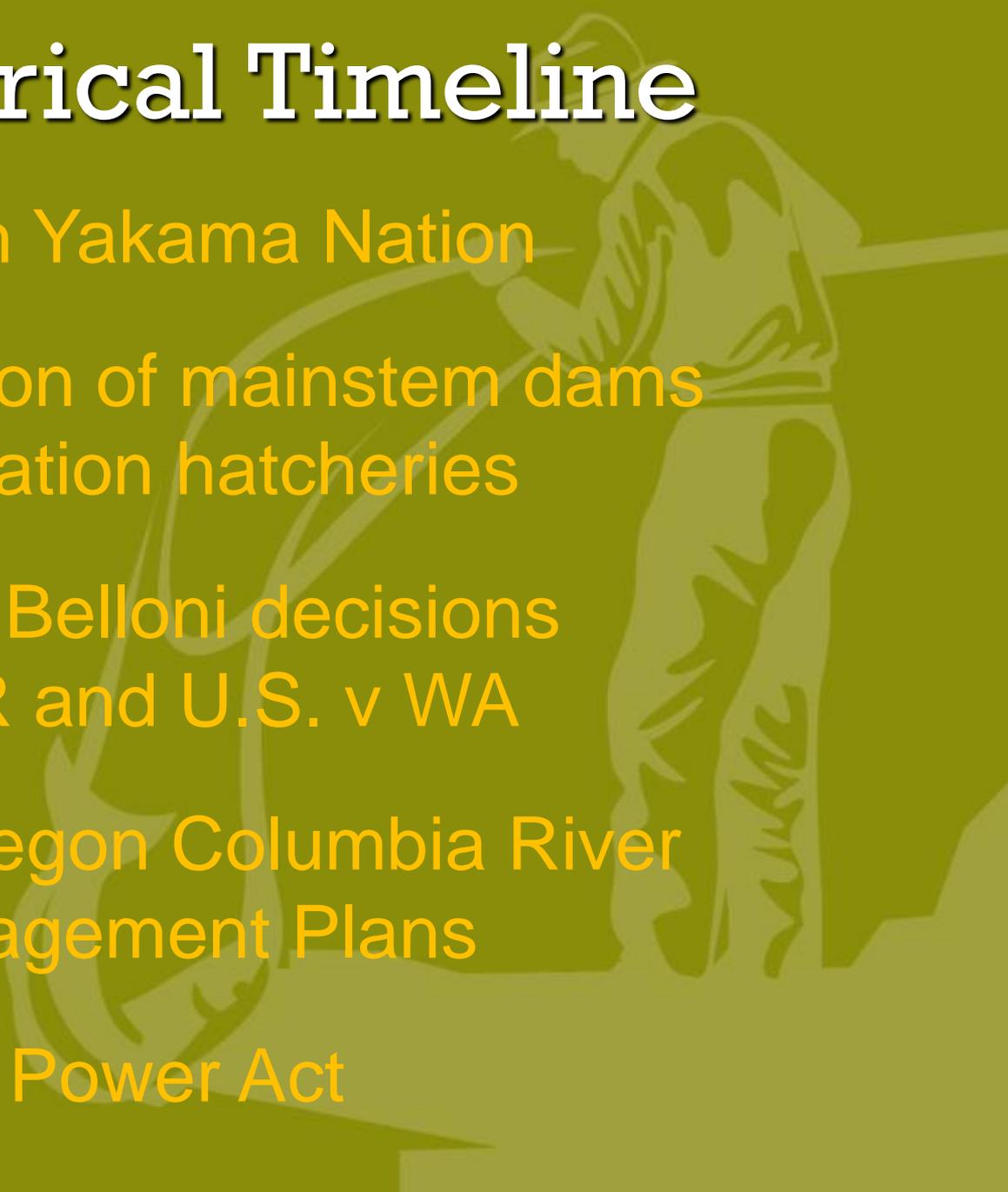
- Basin size: 6,155 sq. miles with 464,000 irrigated acres
- \$4.5 billion agriculture economy
- Historically, second only to Snake River in supporting Columbia Basin salmon and steelhead runs

# Estimates of Historical Anadromous Fish Runs in the Yakima Subbasin as Compared to YKFP Planning era Run Size



Species	Pre-1900	1980s Avg
Fall Chinook	132,000	600
Spring Chinook	200,000	4,200
Summer Chinook	68,000	0
Coho	110,000	200
Steelhead	80,500	1,800
Sockeye	200,000	0

# Historical Timeline



1855: Treaty with Yakama Nation

1938- Construction of mainstem dams

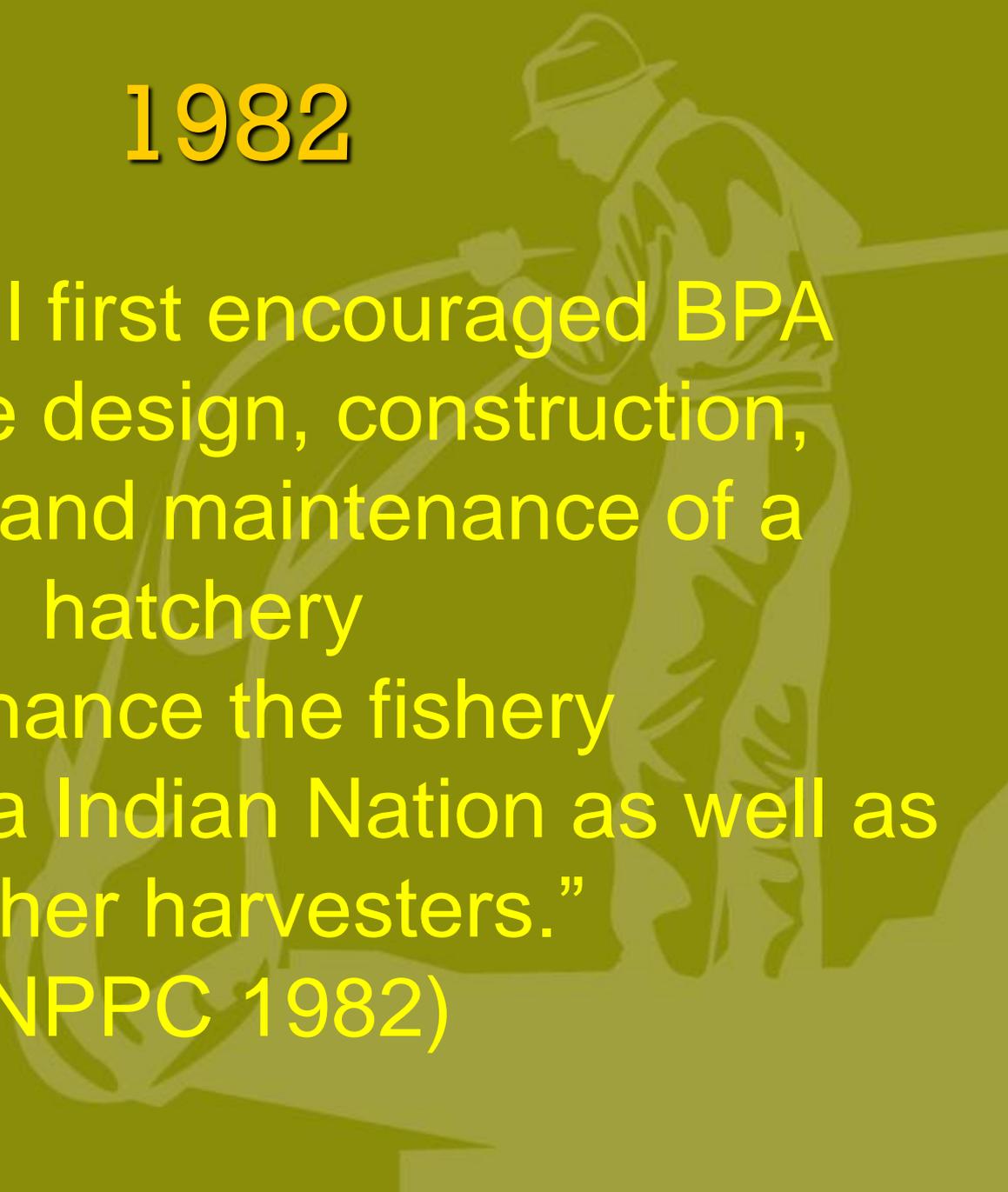
1970s: and mitigation hatcheries

1970s: Boldt and Belloni decisions  
U.S. v OR and U.S. v WA

1977- U.S. v Oregon Columbia River

1988: Fish Management Plans

1980: Northwest Power Act



# 1982

The Council first encouraged BPA to “fund the design, construction, operation, and maintenance of a hatchery to enhance the fishery for the Yakama Indian Nation as well as all other harvesters.”  
(NPPC 1982)

# Species Objectives



- ALL STOCKS IN BASIN - TIERED
- SPRING CHINOOK INITIAL STOCK 1997
- COHO FEASIBILITY PART OF PROGRAM
- FALL CHINOOK 1998
- STEELHEAD – MODELING, PLANNING, (and KELT RECONDITIONING)
- OTHER STOCKS REVIEWED FOR POTENTIAL

# 1996 (Final EIS)

To test the hypothesis that new supplementation techniques can be used in the Yakima River Basin to increase natural production and to improve harvest opportunities, while maintaining the long-term genetic fitness of the wild and native salmonid populations and keeping adverse ecological interactions within acceptable limits.

# **YAKIMA/KLICKITAT FISHERIES PROJECT (YKFP) Objectives**

- **Salmon Supplementation and Reintroduction**
- **Habitat Acquisition and Enhancement**
- **Research, Monitoring and Evaluation**
- **Ecosystem Modeling (to support these efforts)**
- **Data Management and Sharing**
- **Project Administration and Management**

# Information Management



## Reports and Publications:

Forecasts, Annual Reports, Manuscripts

## Excel Summary Files and Maps:

Run reconstruction; spawner/redd distribution;  
Annual run size and escapement; etc.

## Databases:

hatchery brood collections, spawn, rear, and release;  
juvenile outmigration; harvest; dam counts;  
redd counts/ timing; spawner survey info



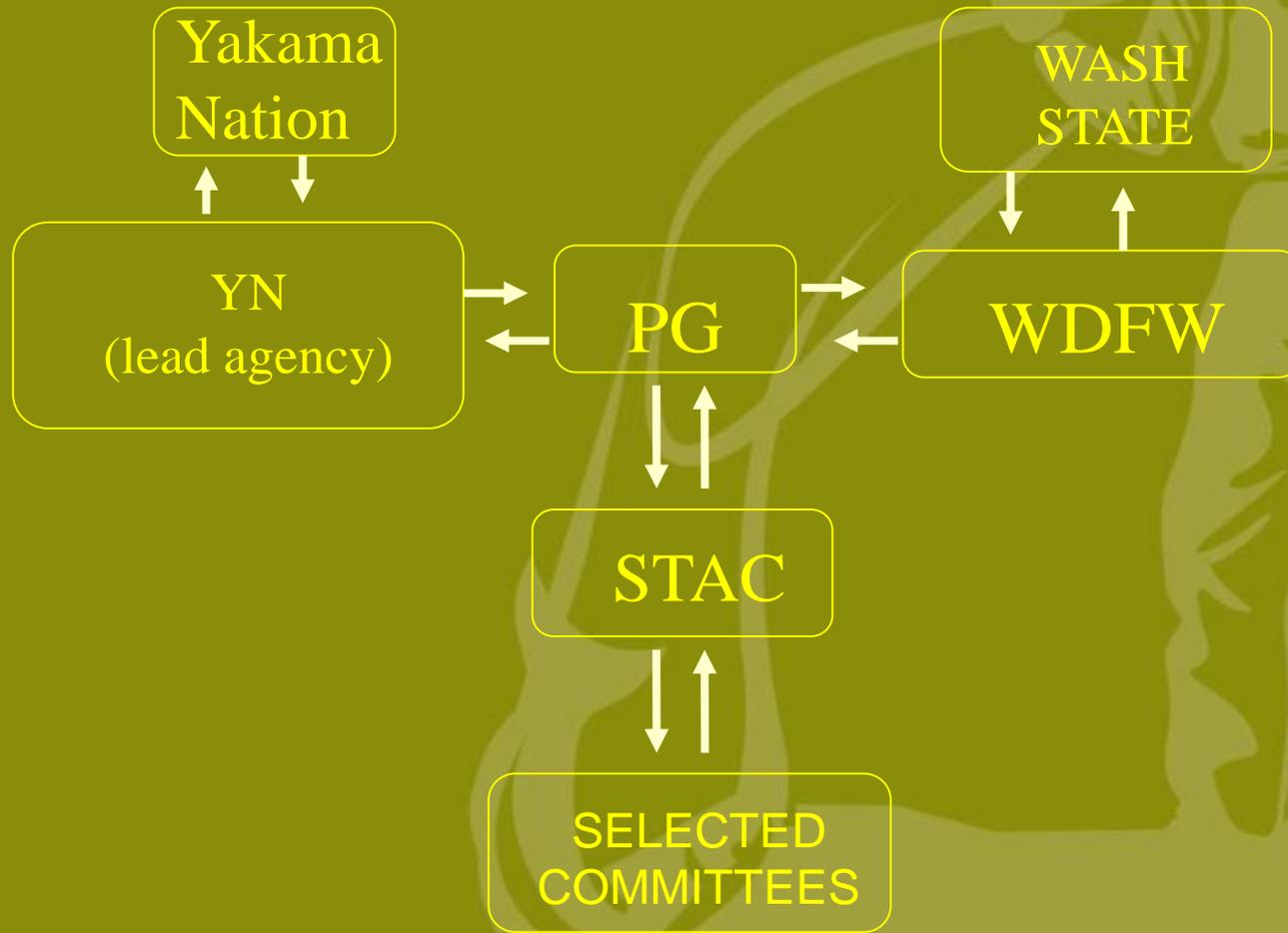
# Information Sharing

200900200: Status and Trend Reporting

200850700: Inter-Tribal Monitoring Data

- RMIS
- PTAGIS
- Streamnet/CAX
- DART
- <https://www.cbfish.org/Project.mvc/Index>
- <https://yakamafish-nsn.gov/fish-data>
- PAR, Meetings, Seminars, and Manuscripts
- Emails and special data requests

# Yakima/Klickitat Fisheries Project Co-Management Structure



# Adaptive Management



- **Internal Project Review (Nov)**
  - Discuss what is/is not working
  - Strategies for improvement
- **Compile and Report annual results (Nov-May) → Project review (June)**
- **STAC/MIPT proposals (as needed)**
  - Technical review
  - Prepare draft decision documents
- **Policy Group meetings (monthly)**
  - Discuss/review project status
  - Decision (action) documents

# Yakima/Klickitat Fisheries Project

## Cooperating Agencies

### BPA

- Funding
- NEPA
- Review

### NPCC

- Review
- Priority
- 5 Yr. Plan

### USFWS

- ESA
- Fish Health
- Mitchell Act/Marking

### USFS

- Habitat

### BOR

- Passage
- Water
- Facilities O & M
- Phase II Screens

### NOAAFish

- ESA
- Physiology
- Homing

### YSFWRB

- Habitat



# Yakima Basin Integrated Plan Workgroup Members



## ■ Federal Agencies

- Bureau of Reclamation
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Army Corps of Engineers

## ■ Yakama Nation

## ■ Washington State Agencies

- Department of Ecology
- Department of Agriculture
- Department of Fish and Wildlife
- Department of Natural Resources

## ■ Local Governments

- Benton County
- Kittitas County
- Yakima County
- City of Yakima

## ■ Irrigated Agriculture

- Kennewick Irrigation District
- Kittitas Reclamation District
- Roza Irrigation District
- Sunnyside Valley Irrigation District
- Yakima-Tieton Irrigation District

## ■ Other Stakeholders

- American Rivers
- Yakima Basin Fish & Wildlife Recovery Board
- Yakima Basin Storage Alliance
- Trout Unlimited



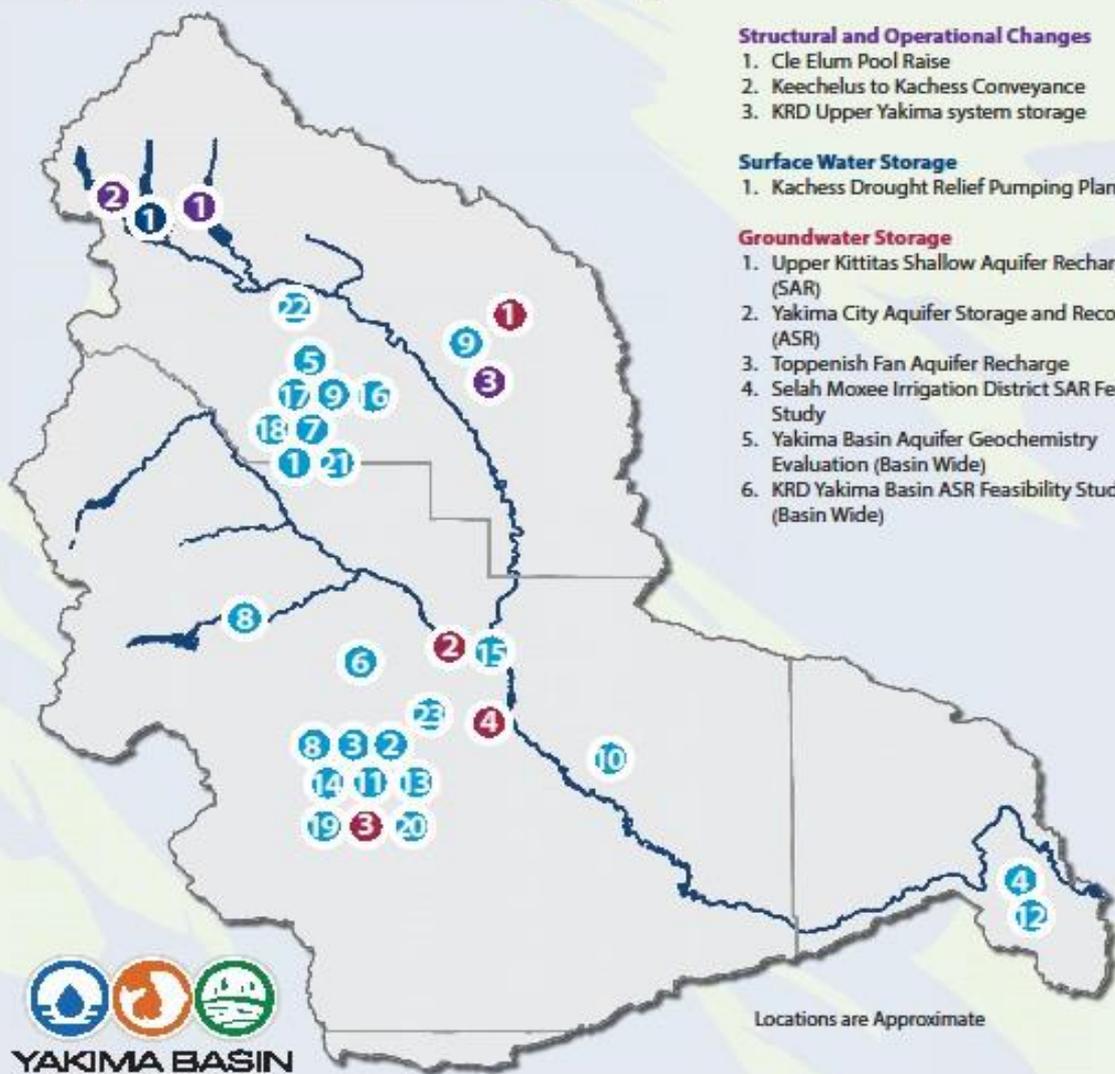
# Yakima Basin Integrated Plan Goals



- Restore and enhance environment, fish and wildlife, including fish passage at federal dams
- Improve water supply during drought years (70% proratable supply)
- Provide for efficient and adaptable water supply management
- Contribute to sustainable economy and environment

# Yakima Basin Integrated Plan Initial Development Phase

## Map I - Conservation, Storage, Operations, and Water Market Projects



### Structural and Operational Changes

1. Cle Elum Pool Raise
2. Keechelus to Kachess Conveyance
3. KRD Upper Yakima system storage

### Surface Water Storage

1. Kachess Drought Relief Pumping Plant

### Groundwater Storage

1. Upper Kittitas Shallow Aquifer Recharge (SAR)
2. Yakima City Aquifer Storage and Recovery (ASR)
3. Toppenish Fan Aquifer Recharge
4. Selah Moxee Irrigation District SAR Feasibility Study
5. Yakima Basin Aquifer Geochemistry Evaluation (Basin Wide)
6. KRD Yakima Basin ASR Feasibility Study (Basin Wide)

Locations are Approximate

### Agricultural and Municipal Conservation (2013-2019)

1. KRD 13.6, 13.8 Lateral Piping Project
2. Wapato Irrigation Project (WIP) Piping Lateral 4-414C
3. WIP Piping Satus East Lateral E73
4. Kennewick Irrigation District (KID) Division IV Lining
5. Manastash Creek Sprinkler Conversions
6. Yakima-Tieton ID Diversion Relocation Feasibility Study
7. Manastash - Consolidated Pipeline & Manastash Water Ditch Association (MWDA) Pipeline Construction
8. WIP Piping of Unit 2 L672 and Headworks Rebuild
9. KRD North Branch Canal Lining
10. Roza Canal Lining Phases I, II, III, IV
11. WIP Lining of Unit 2 (167+20 to 173+80)
12. KID Reregulation Reservoir Design
13. WIP Unit 2 Upper Dam Rebuild and Lower Dam Removal
14. WIP Water Conservation Plan
15. City of Yakima Xeriscape Demonstration Project
16. Reed Pipeline Design Manastash Creek
17. Anderson Diversion Irrigation Water Acquisition
18. KRD South Branch Canal Lining, Phases I and II
19. WIP Unit 2 West Piping
20. WIP Unit 2 West Lining
21. KCCD Irrigation Efficiency Improvements
22. KRD Upper Tributary Supplementation
23. WIP Track D Lateral Pipeline
24. Heritage Gardens Municipal Conservation Program (Basin Wide)

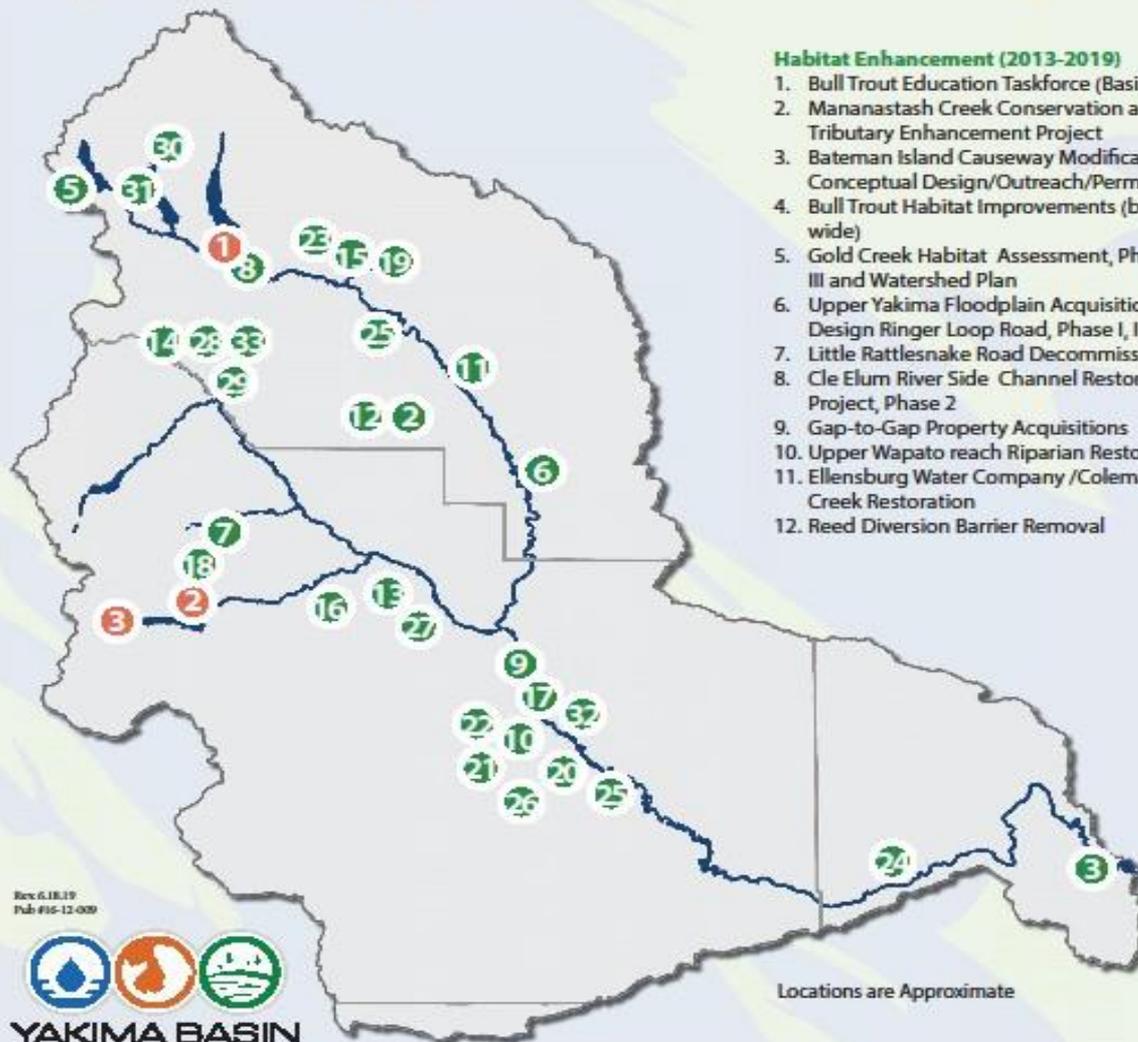
### Water Bank/Exchange Programs

1. KRD/TU Yakima basin Water Market Structure and Strategic Development (Basin Wide)

Rev. 6/18/19  
Pub 016-12-009

# Yakima Basin Integrated Plan Initial Development Phase

## Map 2 - Fish Passage and Habitat Enhancement Projects



### Habitat Enhancement (2013-2019)

1. Bull Trout Education Taskforce (Basin Wide)
2. Mananastash Creek Conservation and Tributary Enhancement Project
3. Bateman Island Causeway Modification Conceptual Design/Outreach/Permitting
4. Bull Trout Habitat Improvements (basin wide)
5. Gold Creek Habitat Assessment, Phase I, II, III and Watershed Plan
6. Upper Yakima Floodplain Acquisition and Design Ringer Loop Road, Phase I, II
7. Little Rattlesnake Road Decommissioning
8. Cle Elum River Side Channel Restoration Project, Phase 2
9. Gap-to-Gap Property Acquisitions
10. Upper Wapato reach Riparian Restoration
11. Ellensburg Water Company /Coleman Creek Restoration
12. Reed Diversion Barrier Removal
13. Trout Meadows Acquisition /Enhancement
14. Little Naches Land Acquisition
15. Teanaway Valley Farm Acquisition and Restoration
16. Cowiche Easement/Design
17. Gap-to-Gap Outfall Relocation and Levee Removal Design and Restoration
18. South Fork Tieton Bull Trout Passage Feasibility and Design, Phase I, II, III
19. Teanaway/Indian Creek Restoration and Large Wood Replacement
20. Yakima Rivermile 89.5 Levee Breach
21. Island Road Floodplain Reconnection - Toppenish Creek
22. Toppenish Creek - Pop Pom Road
23. Teanaway Habitat Restoration and Fencing, Phase I, II, III
24. Lower River Thermal Refuge
25. Wapato reach Riparian Project
26. Yakima Basin Tributary Restoration (Starvation Flats, Ahtanum, Toppenish)
27. Naches River and Cowiche Creek Restoration
28. Little Naches Large Wood Project
29. Fawn Creek Culvert Replacement
30. Kachess River Passage and Floodplain Assessment
31. Box Creek Large Wood Replenishment
32. Donald Wapato Bridge Restoration
33. Little Naches River Watershed Aquatic Restoration

### Fish Passage

1. Cle Elum Dam
2. Tieton (Rimrock) Dam
3. Clear Creek Dam

Locations are Approximate

Rev 6.18.19  
Pub #16-12-009



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HONOR. PROTECT. RESTORE.

# YKFP Yakima Basin Habitat Projects

- 199603501: Yakama Reservation Watersheds
- 199705100: Side Channels/Land Aquisition
- 199206200: Lower Valley Wetlands Restoration
- 199200900: Fish Screens O&M
- 200739800: Tributary Access and Habitat

