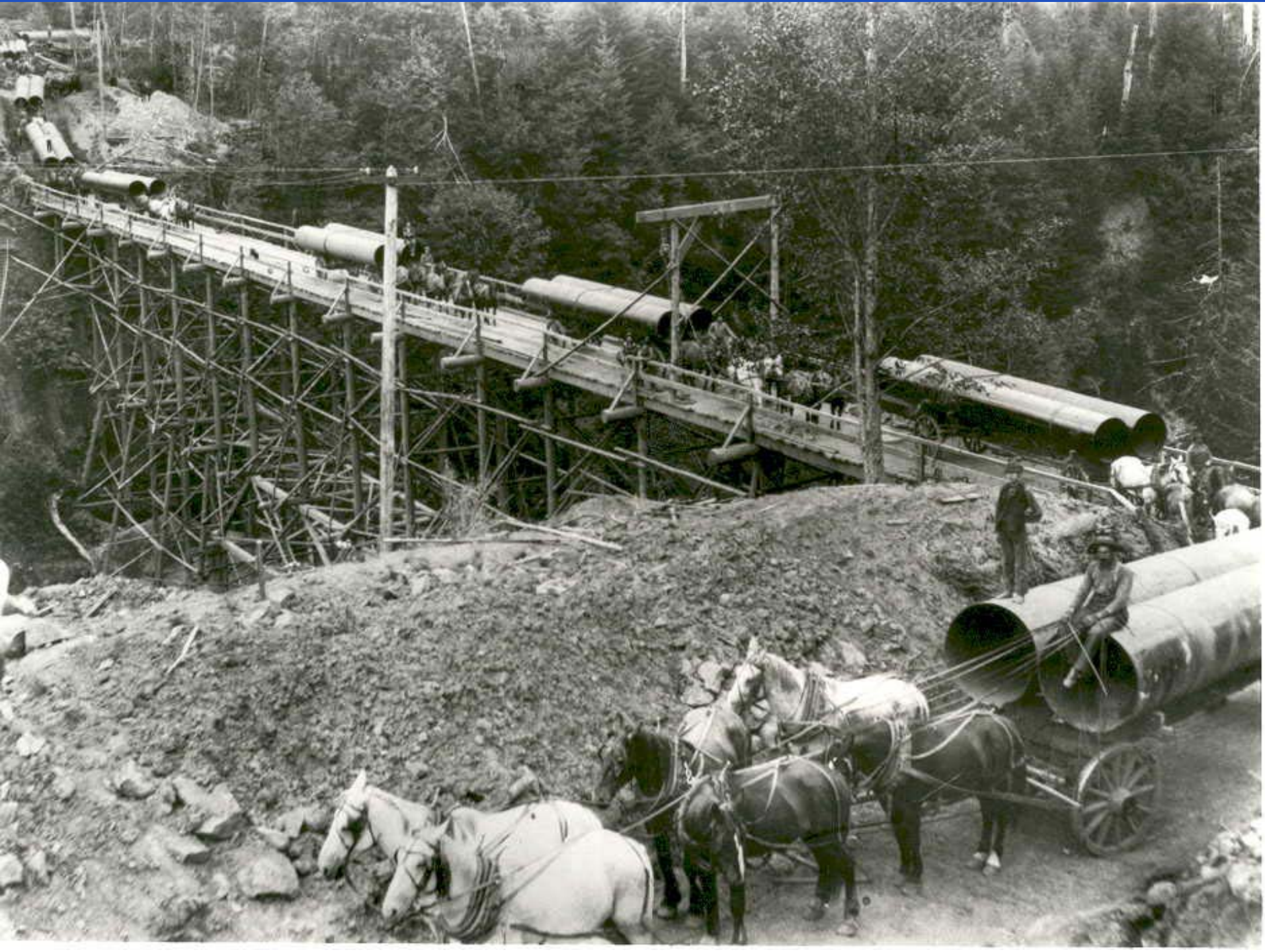


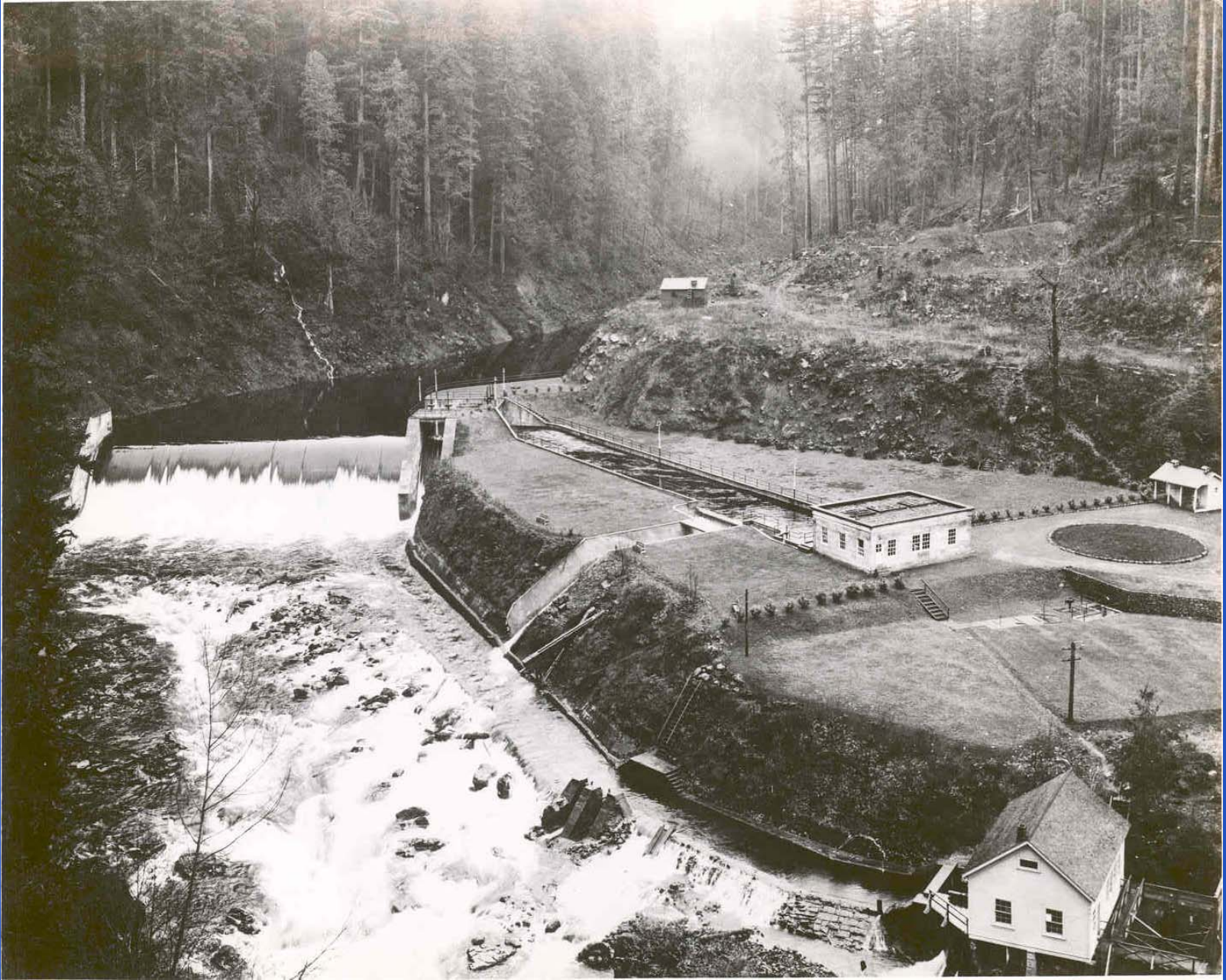


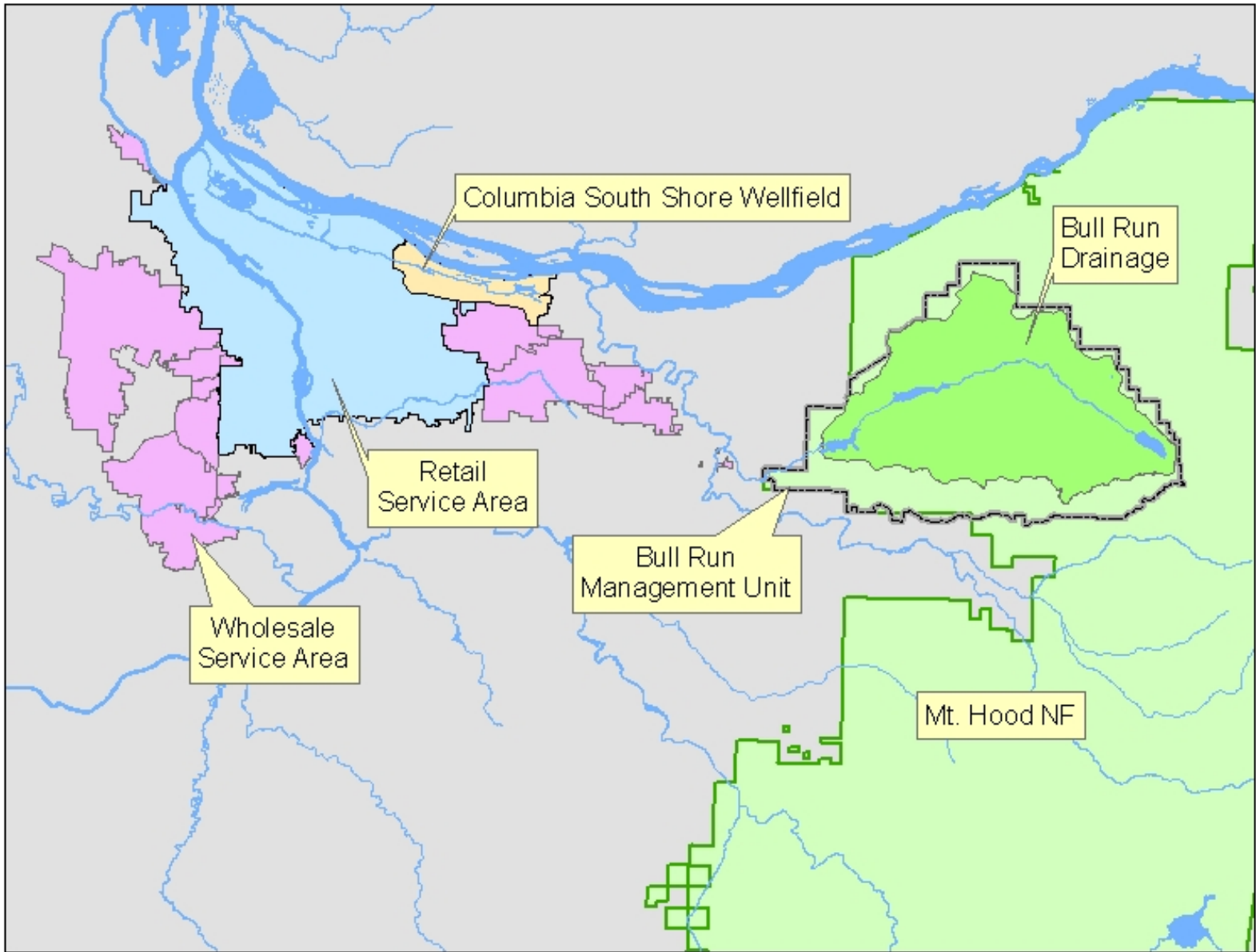
# Development & Implementation of the 2007 Bull Run Agreement

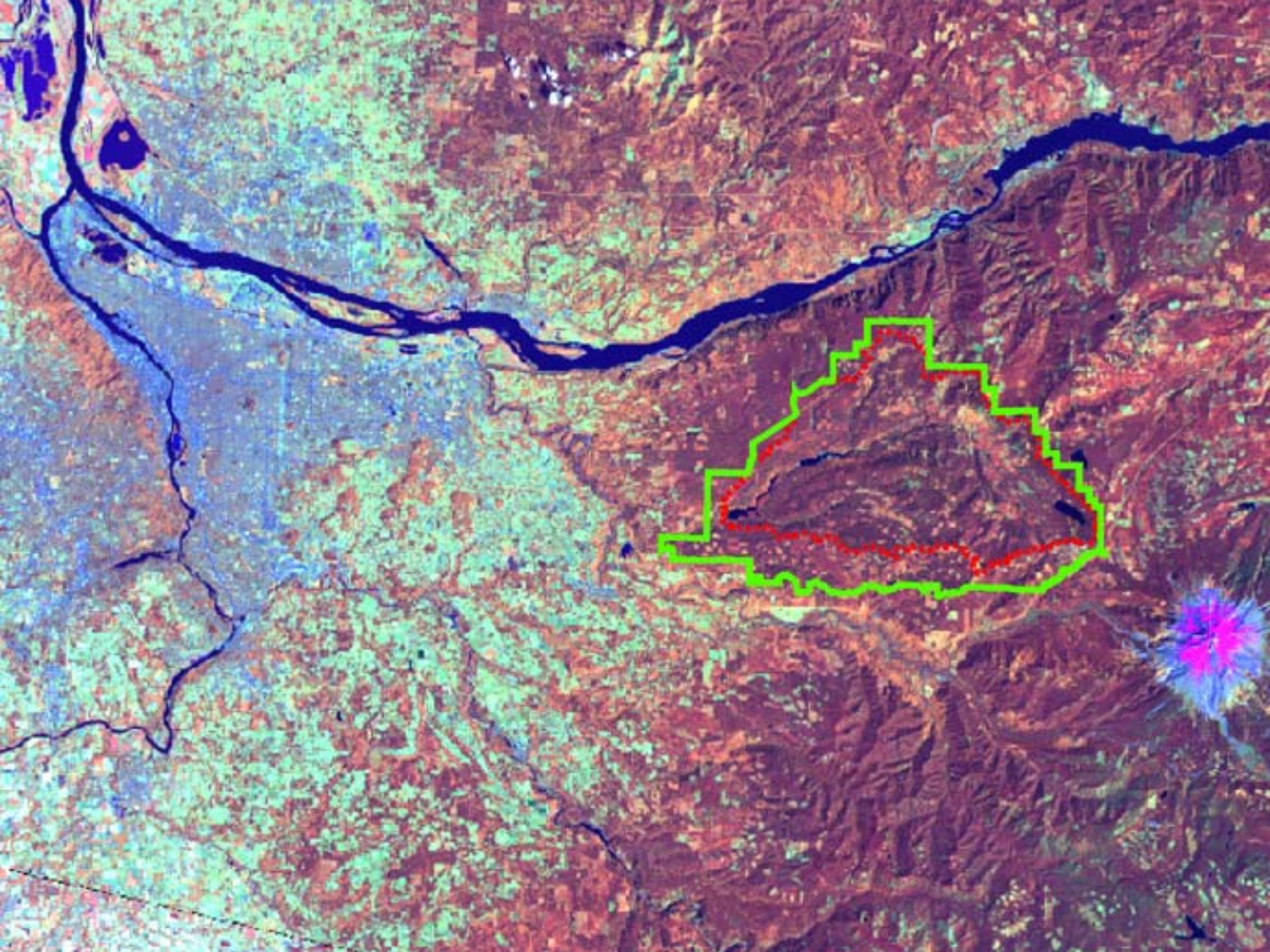
**Richard Robbins**  
**Source Water Protection Program  
Manager**











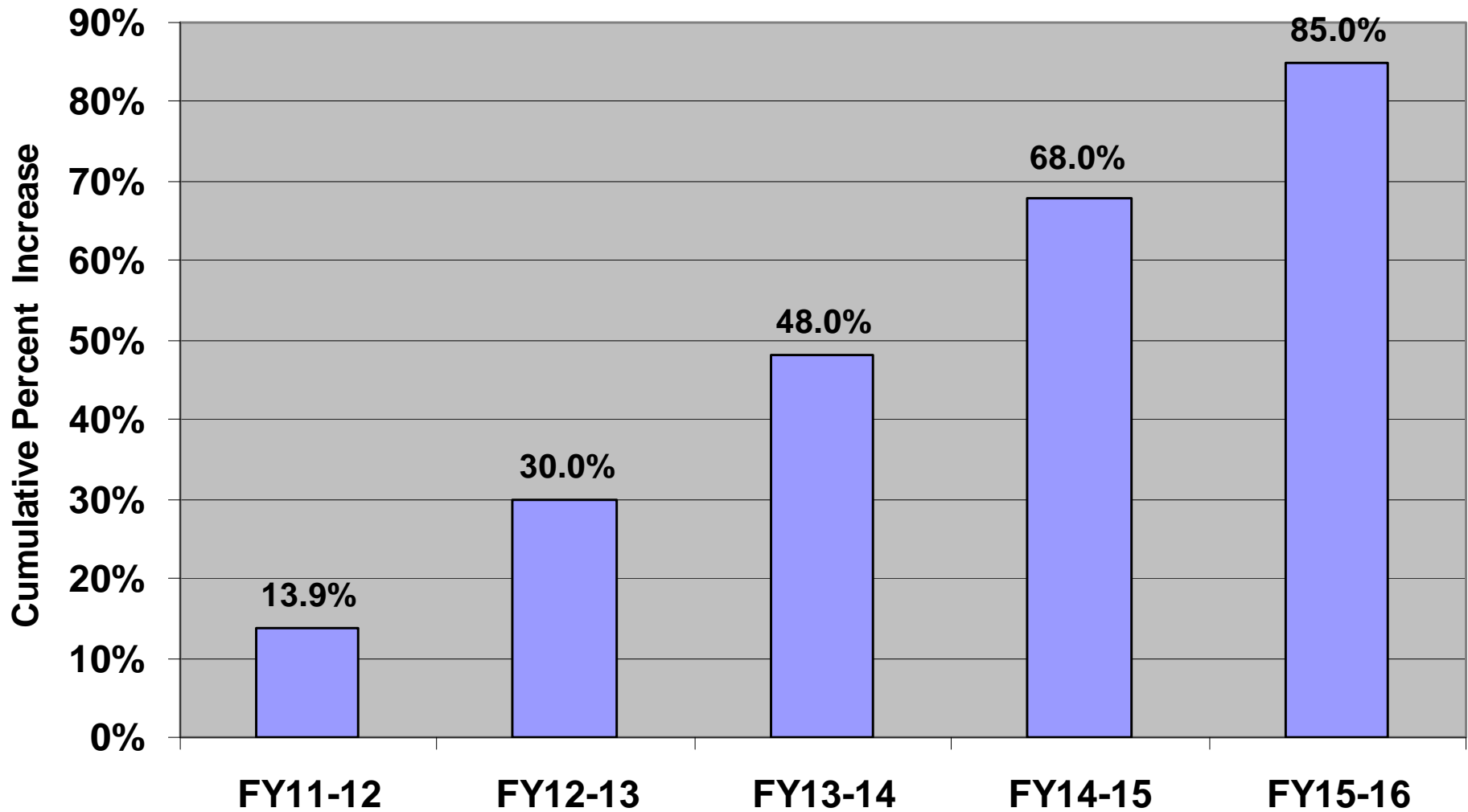
# Service Population and System Demand



- 566,000 retail customers
- 366,000 wholesale customers
- 19 cities, districts and companies
- 100 million gallons per day average demand
- 165 million gallons per day peak demand

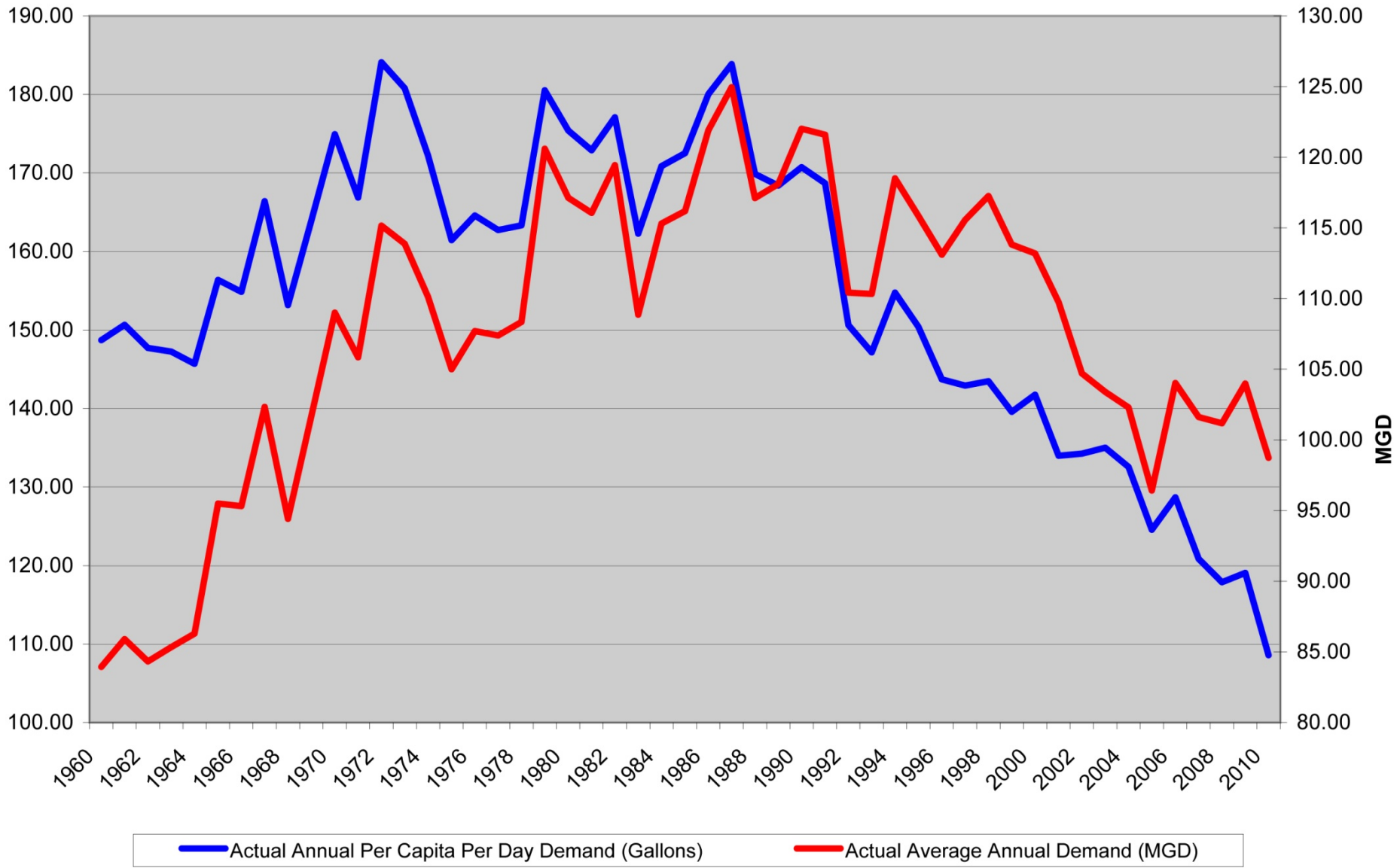
# What are the biggest challenges we're facing?

# Retail Water Rates -- Cumulative Increase





# Actual Annual Average and Annual Per Capita Demand, 1960-2010



— Actual Annual Per Capita Per Day Demand (Gallons)
 — Actual Average Annual Demand (MGD)



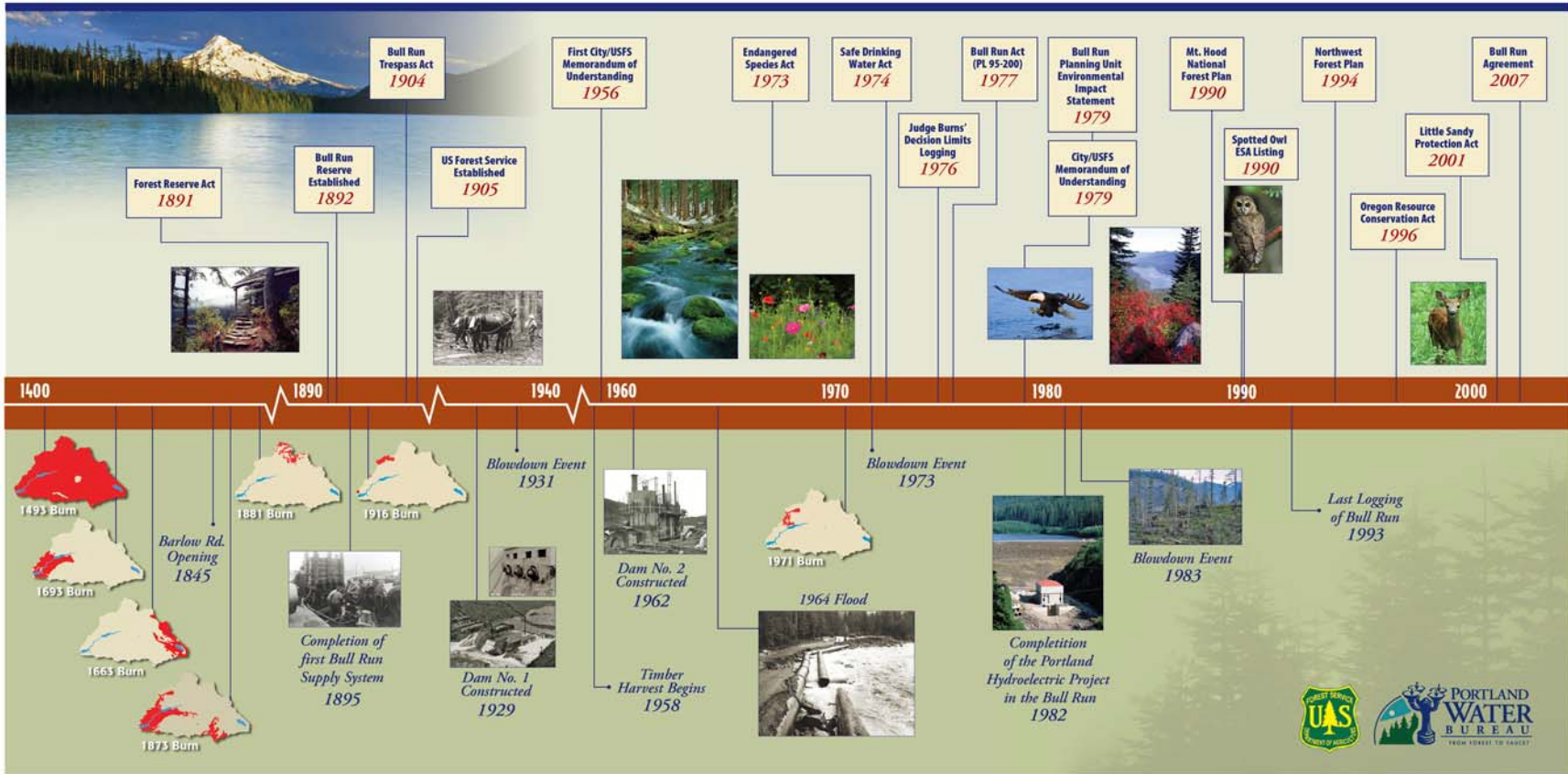
# HISTORY OF BULL RUN

POLICIES / LEGISLATIVE ACTIONS

MANAGEMENT ACTIONS / NATURAL EVENTS

POLICIES / LEGISLATIVE ACTIONS

MANAGEMENT ACTIONS / NATURAL EVENTS



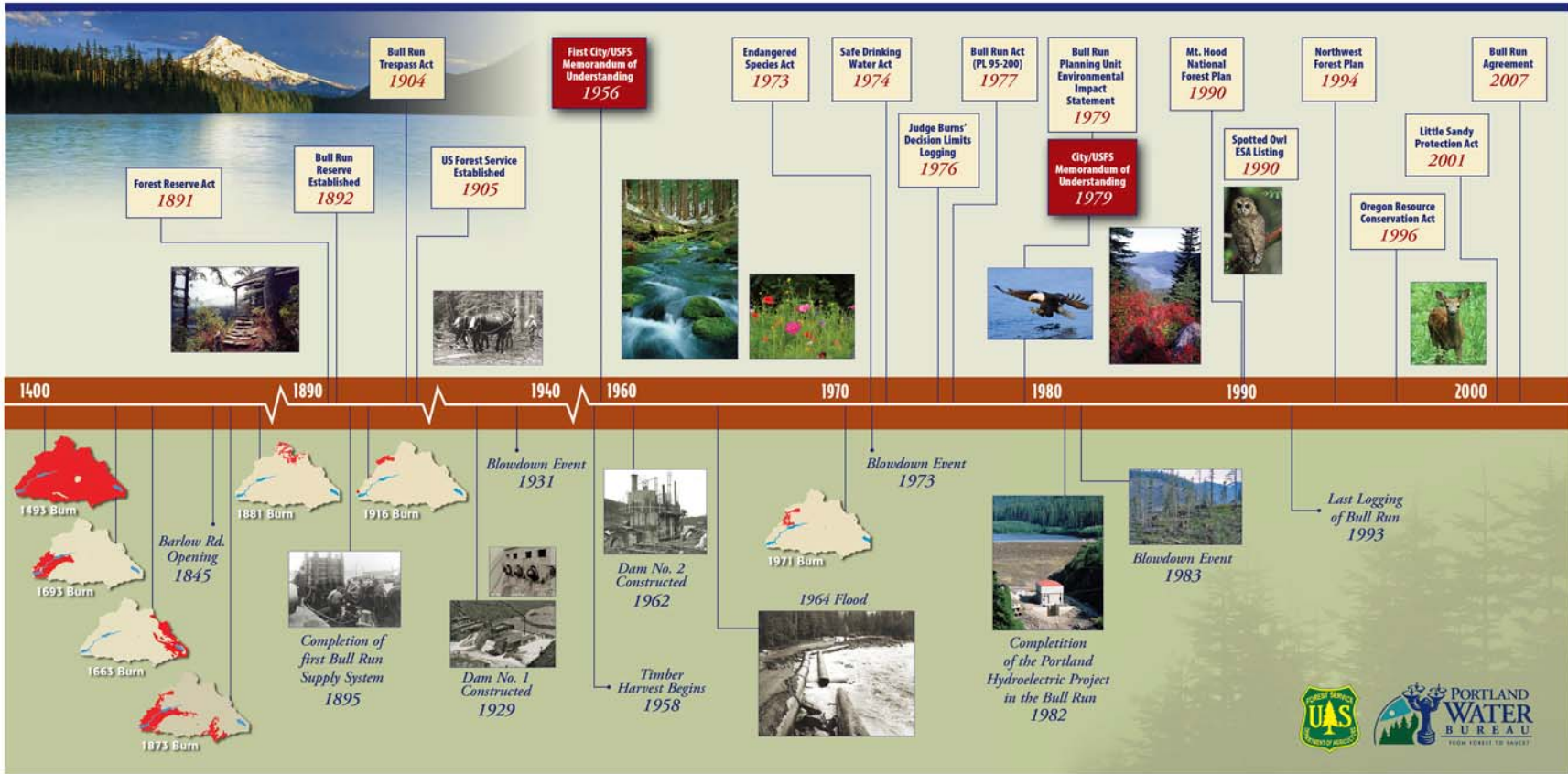
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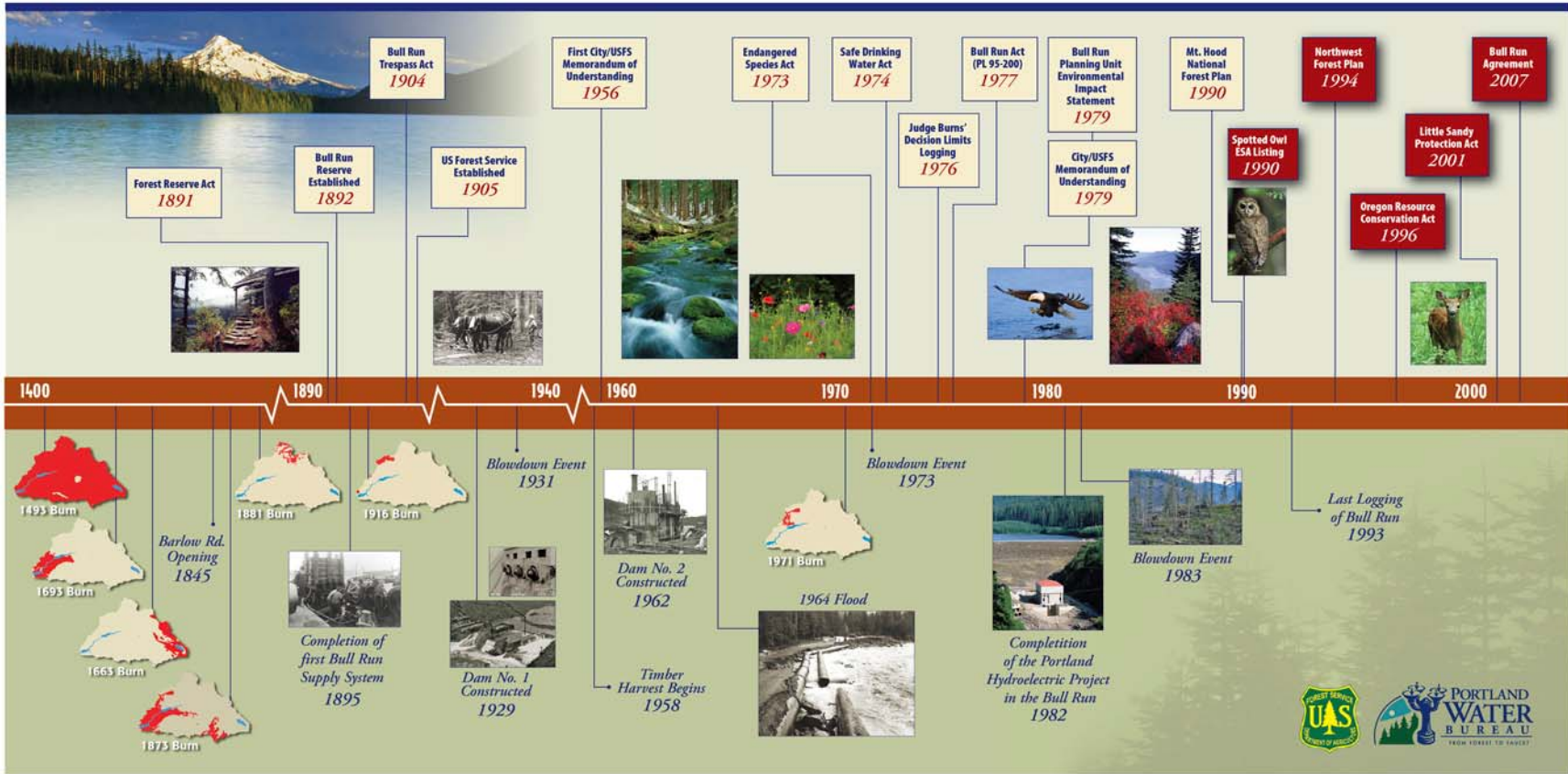
# HISTORY OF BULL RUN

POLICIES / LEGISLATIVE ACTIONS

MANAGEMENT ACTIONS / NATURAL EVENTS

POLICIES / LEGISLATIVE ACTIONS

MANAGEMENT ACTIONS / NATURAL EVENTS



# Purpose of the Agreement

- Conform with Bull Run Management Act and other laws
- Increase efficiency and responsiveness
- Clarify Portland Water Bureau and Mt. Hood NF roles and responsibilities
- Establish citizen participation processes



# Bull Run Management Act

- Established the Bull Run Watershed Management Unit
- Confirmed that primary purpose is to manage as water supply
- Affirmed restriction of public entry
- Prohibits timber harvest, with very limited exceptions
- Dictates that agencies formally work together through written agreements

# Evolution of Bull Run Agreement

## Policy Crossroads

- NW Forest Plan (1994)
- ORCA (1996) and Little Sandy Act (2001)
- Significant drop in FS funding (~1998)

## Stakeholder Input

- Consultant conducts stakeholder interviews and prepares "Convening Report" (2000-2001)

## Policy Groundwork

- City/FS Joint Statement of Intent (2001)
- Bull Run visioning workshop (2003)
- City Council Resolution 36122 (2003) → confirm Council's support for moving forward

## Final Agreement

- Meetings w/ key stakeholders (2005)
- Federal Register Notice (Feb, 2007)
- City Council approval (Sept. 2007)





# Transparency Commitments in Bull Run Agreement

- City and Forest Service prepare joint semi-annual reports
- Semi-annual coordination meetings open to public

# Framework for Roles & Responsibilities

|   |  |                     |  |   |
|---|--|---------------------|--|---|
|   | <b>Joint Interest and Collaborative Action</b> |                     |  |   |
| <b>Water Bureau Interest and Action</b> | <b>Water Bureau Action with Consultation</b>   | <b>Joint Action</b> | <b>Forest Service Action with Consultation</b> | <b>Forest Service Interest and Action</b> |

# Roles and Responsibilities



- Stewardship of upland terrestrial resources
- Road decommissioning



- Water supply system
- Stewardship of aquatic resources
- Maintenance of long-term access roads
- Security infrastructure (locks, keys, gates)



- Trespass enforcement
- Fire protection and planning
- Conservation/environmental education

# Roles and Responsibilities



- Stewardship of upland terrestrial resources
- *Road decommissioning*



- Water supply system
- Stewardship of aquatic resources
- *Maintenance of long-term access roads*
- Security infrastructure (locks, keys, gates)



- Trespass enforcement
- Fire protection and planning
- Conservation/environmental education

# Road Maintenance



# What Roads are Necessary?

- Access to water supply facilities
- Access to ancillary facilities (monitoring stations)
- Access to BPA power line right-of-way
- Fire protection

*The result: 179 miles of necessary roads for the Bull Run*

# Bull Run Road Network

## BULL RUN ROAD NETWORK

### Active Roads

- COP Keep Open Rds
- Keep Open/Other Agencies
- USFS Arterials
- Outside Rds
- Freeway or State HWY

### Decommissioned Roads

- - - Active Decommissioning
- - - Passive Decommissioning

### Land Ownership

- US Forest Service
- BLM
- City of Portland
- State of Oregon
- Other Local Government
- Private

### Site Features

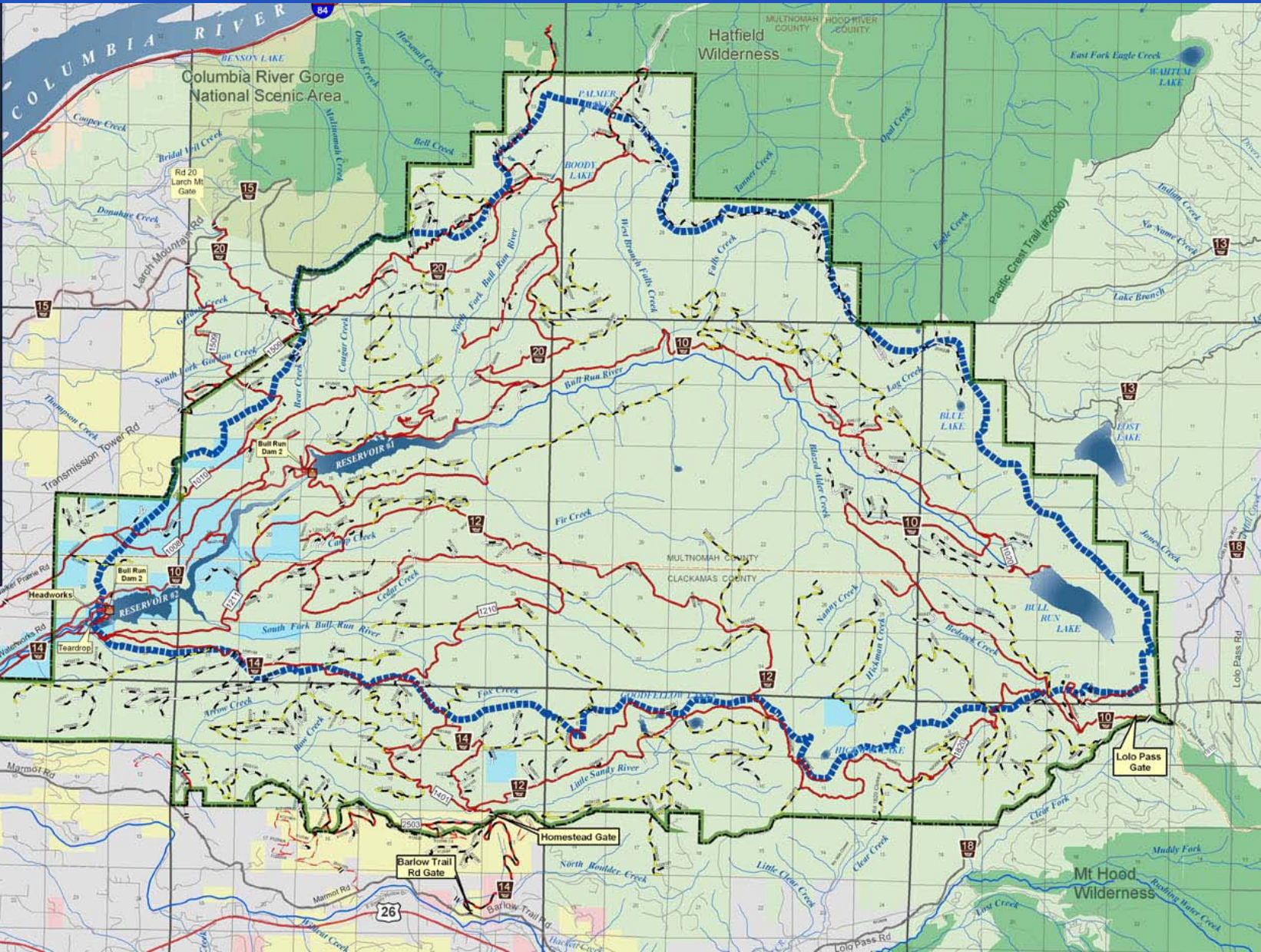
- BRWMU Boundary
- Water Supply
- - - Drainage Boundary
- PLSS Section



Portland Water Bureau  
 Resource Protection/Planning  
 1120 SW 5th Ave Rm 600  
 Portland, OR 97204-1926  
 503-823-3786



SR, Road, Map, WCDOT, 11x17 Final, 11/05/05



# Road Maintenance

- Water Bureau maintains 157 miles of road in and directly adjacent to the BRWMU
- 80% of PWB-maintained roads are paved
  - legacy from logging era
- Biggest challenge: pavement is gradually deteriorating, overlays are expensive
- Annual costs:
  - \$500,000/yr for routine maintenance
  - \$1 million/yr for capital improvements

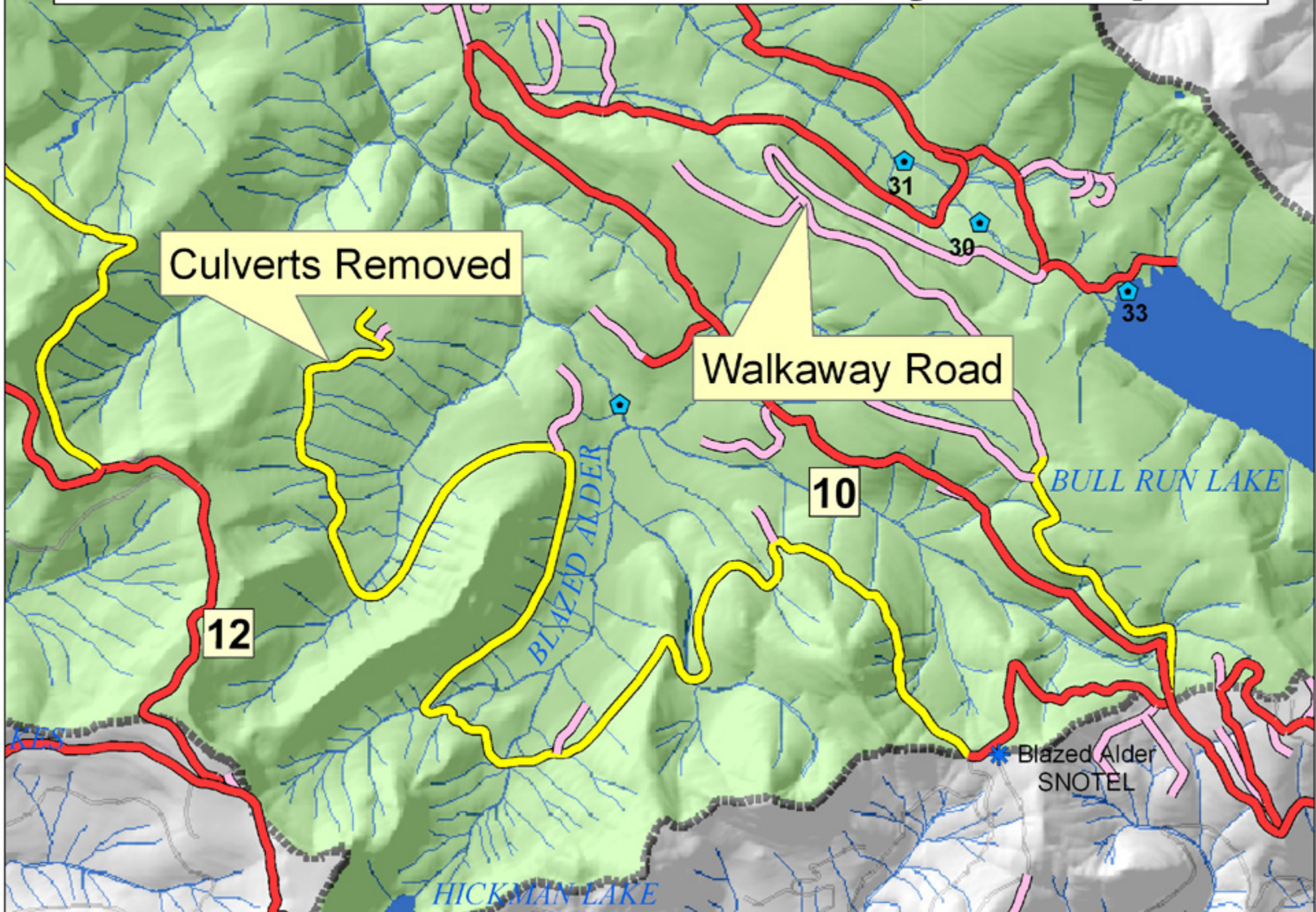


# Road Decommissioning



- Program began in 1997
- Road decommissioning in *water-supply drainage* completed in 2009
- 106 miles of *active* road decommissioning within BRWMU
- 95 miles of *passive* road decommissioning within BRWMU

# Culvert Removal & Walkaway Examples

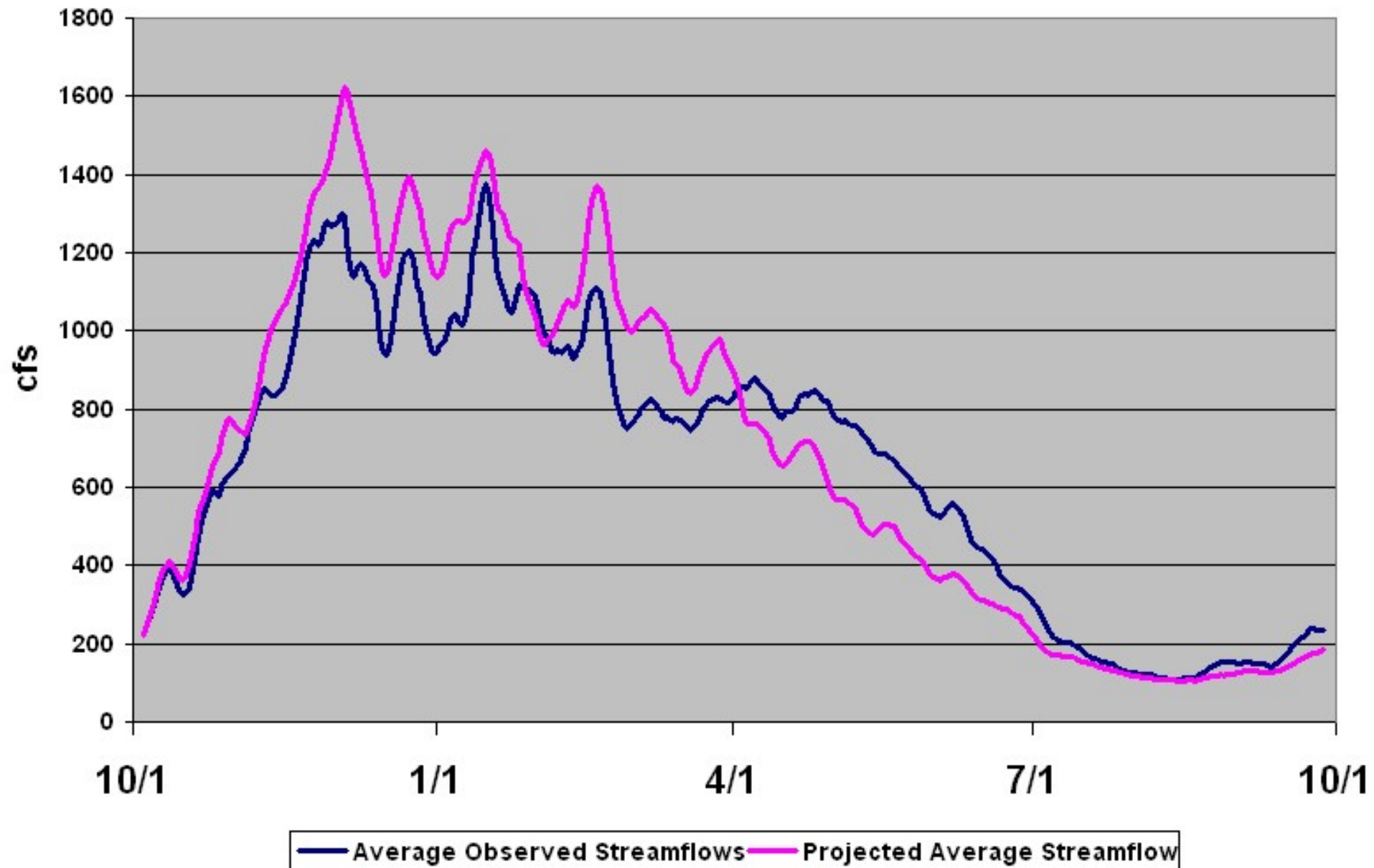


# Road Mileage Summary for Bull Run Road System

| Category                               | Miles |
|--|-------|
| Keep-open Roads — PWB Maintenance      | 157   |
| Keep-open Roads – Maintenance by Other | 22    |
| <i>Active</i> Decommissioning          | 106   |
| <i>Passive</i> Decommissioning         | 95    |

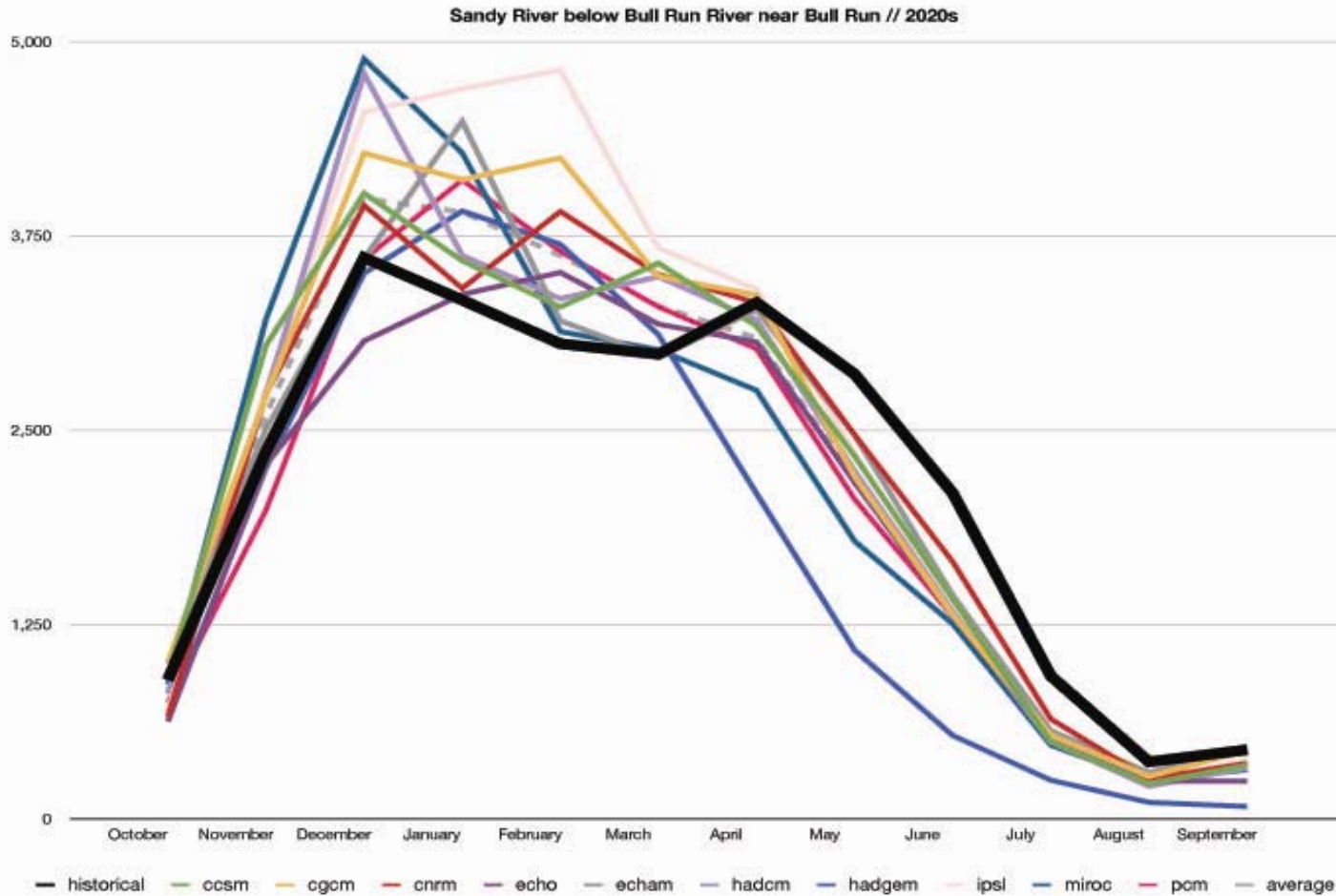
# Implications of Climate Change ... What Does the Future Hold?

# 7-Day Moving Average Streamflows (1951 - 1998)



— Average Observed Streamflows — Projected Average Streamflow

# Model Forecast for Sandy River, 2020



# Summary

- Biggest challenges for PWB: declining demand, and rate increases due to regulatory mandates and aging infrastructure.
- Bull Run Agreement provides an effective framework for defining roles & responsibilities.
- Providing public involvement opportunities throughout the process helped ensure public support .
- Completion of the road decommissioning program helps reduce contribution of sediment from unneeded roads. Legacy Roads & Trails funding was instrumental.
- Concerns about the potential effects of climate change on seasonal extremes – wetter winters and extended dry season. Technical challenges with downscaling global climate change models to watershed scale.

