



# CITY OF SALEM

555 Liberty St SE  
Salem, OR 97301

## Revisions to the Agenda City Council

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**Monday, January 22, 2018**

**6:00 PM**

**Council Chambers**

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**3.3f.** [18-42](#)

Confirm Direction from the January 16, 2018 City Council Policy  
Agenda Work Session and Next Steps

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

*Add - Added Report.*

**5.b.** [18-41](#)

City Comments regarding Detroit Dam Downstream Passage Project

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

*Add - Added Report.*



## Staff Report

**File #:** 18-42

**Version:** 1

**Date:** 1/22/2018

**Item #:** 3.3f.

**TO:** Mayor and City Council

**FROM:** Steve Powers, City Manager

### **SUBJECT:**

Confirm Direction from the January 16, 2018 City Council Policy Agenda Work Session and Next Steps

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

### **ISSUE:**

Shall the City Council confirm their direction from the January 16, 2018 City Council Policy Agenda and Work Session and next steps.

### **RECOMMENDATION:**

Confirm direction from the January 16, 2018 City Council Policy Agenda Work Session and next steps.

### **SUMMARY AND BACKGROUND:**

The Salem Strategic Plan, adopted by City Council on October 23, 2017, articulates the mission, vision, values and goals of the City (Attachment 1). The Strategic Plan charts a three to five year course for the City and represents the culmination of extensive community input on issues, followed by discussion and vetting by issue work groups of actions that would advance the policy issues.

The Strategic Plan is foundational to the Salem City government in four primary areas. The Strategic Plan:

1. Articulates the mission vision and values for the organization,
2. Defines expectations of the Council and community for the primary services the City should provide,
3. Establishes policy priorities for the next three to five years,
4. Sets the framework for Council's annual policy direction through the City Council Policy Agenda.

## FACTS AND FINDINGS:

### Council and Community Expectations: Mission, Vision, Values

The mission, vision and values articulate what is expected of the organization in the future, the purpose of the organization and the services it provides, and how the services will be provided. The mission, vision and values also provide a basis through which the community and Council can review a proposed new (or change in existing) program or service. For our purposes, the lenses through which we evaluate proposals will likely be:

- How is this proposal, program or service responsive to a community need (*at your service*)? Is this building capacity and partnerships to help us prepare for the future?
- How is this proactive and forward thinking?
- How will this proposal, program or service enrich the lives of present and future residents?
- How is this proposal, program or service promoting our values of being fair, equitable and safe?
- How does this further the City's values of being open and inclusive?

### The 2018 Policy Agenda

On January 16, 2018, the City Council discussed its 2018 Policy Agenda. The Policy Agenda will provide guidance to the Department Directors and City Manager in the preparation of the annual budget. Through an annual City Council Policy Agenda, City Council will make its initial priorities for action clear to staff and the community, and provide direction on aligning resources towards the policy areas in the Salem Strategic Plan.

The 2018 Policy Agenda is part of an annual cycle of policy and program evaluation, financial forecasting, and reporting to City Council and the community (Attachment 2).

To assist City Council in their discussion of policy priorities for the 2018 Policy Agenda, staff prepared presentations and progress reports. Staff presented ideas and received positive feedback from Council for actions to implement Strategic Plan priorities and include in next year's budget, including:

- Sustainable Services: Core services and desired level of service through Priority Based Budgeting
- Vision for Growth and Development: Updated approach and timeline
- Environmental Action: Greenhouse gas inventory
- Economic Development & Downtown: High speed internet downtown, market feasibility
- Affordable Housing, Homelessness and Social Services: Sobering center
- Open Fire Station 11
- Add capacity for Neighborhood Association support

Several other questions were raised about other Strategic Plan actions, planned for discussion at Work Sessions in 2018, as shown in the attached schedule (Attachment 3). Staff will be returning with options for revenue strategies in the summer. Also this summer, staff plan to return with more information on the assessment management and general obligation bonding strategy.

Staff were also asked to return with more information on the Child Friendly initiative and another proposed Strategic Plan action to "increase the use of grants to seismically retrofit downtown buildings."

### **Next Steps**

**Child Friendly.** At the January 16, 2018 Work Session, staff provided an information report on existing policies, planning, programs and activities in which the City engages directly with children. To do more, a shift in responsibilities of existing staff from current priorities would be required, reducing available time and resources for other initiatives. With the shift to reporting budget and progress by outcomes or Service Areas and through the Priority Based Budgeting exercise, emphasis may be placed on those programs and services that directly benefit future generations.

**Seismic Improvements for Downtown Buildings.** With regard to offering incentives to downtown property owners for seismic retrofits, through its Urban Renewal Agency grant program, building owners may apply for grants to make seismic improvements and adapt older buildings for their re-use (Attachment 4). In the West Salem, North Gateway and Riverfront Downtown Urban Renewal Area there are grant programs to assist commercial, industrial and mixed-use buildings to construct and renovate buildings.

All of the grant programs are different based on the needs of a particular URA, but universally support eligible capital project costs that address building code violations, which could include seismic upgrades. Since 2004, Riverfront-Downtown Urban Renewal Area funds have partially funded seismic improvements in several formerly vacant large downtown historic buildings.

In addition, if the end use is intended to be multi-family, Salem offers a Multiple Unit Housing Tax Incentive Program. This up to 10-year tax exemption is available for new or converted housing units within the boundary for the program, which includes the Historic Downtown and is slightly larger than the Riverfront Downtown Urban Renewal Area.

In the 2017 Oregon Legislative Session, a new law was put into place that authorizes a city or county to adopt an ordinance or resolution to provide for a full or partial property tax exemption for eligible property that will undergo structural seismic retrofitting.

"Eligible property" means improvements built before January 1, 1993, that constitute a commercial, industrial, or multifamily building that is not centrally assessed or state-assessed industrial property. The exemption period may be a maximum of 15 years. The new law provides numerous safeguards and limitations. Staff will return in the spring with more analysis of what would be involved for the City to implement and administer tax abatements under Chapter 537 of Oregon Revised Statutes.).

**Priority Based Budgeting.** For the February 12, 2018 City Council meeting, a transfer resolution will be recommended to Council to begin Priority-Based Budgeting in May 2018. In addition, an update on Service Areas will be included.

**2018 Policy Agenda.** For the February 26, 2018 meeting, staff will return with a final draft of the 2018 City Council Policy Agenda for Council's approval. In April, the Budget Committee will begin



meeting to discuss the FY 2018-19 Budget.

Attachments:

1. 2017 Strategic Plan in brief.
2. City Council Policy Agenda Budget Development and Operations
3. Draft 2018 Work Session Schedule
4. Capital Improvement Grant Program for the Riverfront Downtown URA

## Vision



A safe and livable capital city with a sustainable economy and environment that is open to all.

## Mission



The City of Salem provides fiscally sustainable and quality services to enrich the lives of present and future residents, the quality of our environment and neighborhoods, and the vitality of our economy.

## Values



**Opportunity:** Salem is proactive and forward-thinking.

**Compassion:** Salem is fair, equitable, and safe.

**Responsiveness:** Salem is at your service, with capacity and partnerships to prepare for the future.

**Accessibility:** Salem is open and inclusive.



## GOALS AND ACTIONS



### Vision for Growth and Development

Develop a comprehensive, long-term vision for future growth and development in Salem that has community participation.

Conduct citywide visioning process to determine the community's goals and priorities for future growth and development.

Update the Salem Area Comprehensive Plan with the results of the visioning.

### Affordable Housing, Homelessness and Social Services

- Implement a Housing First strategy to provide housing security for Salem residents.

- Accessible health and social services for Salem residents.

Create a sustainable, substantive funding stream for development of affordable housing.

Enhance neighborhood livability and resident engagement through thoughtful site selection and design

for new affordable housing: prioritize access to transit, proximity to services, and the creation of a sense of community.

Maximize resources for and coordination of local social services and align Salem's existing social service funding with strategic initiatives.

Continue funding a program for rental assistance for homeless people.

Partner to establish a sobering and recovery center.



## GOALS AND ACTIONS

### Economic Development and Vibrant Downtown

- A greater survival rate for small businesses, growth of existing businesses, and attraction of new businesses.
- A vibrant downtown with low commercial vacancy, improved public amenities and high-quality housing that meets the needs of residents of all ages and incomes.

Explore start-up and entrepreneurial support programs, including shared workspace, incubators, maker-space, collaboration hubs, food hubs, and commercial kitchens.

Develop an airport business plan.

Explore the possibility of bringing City-provided high-speed internet to Salem.

Explore the need for and feasibility of possible new urban renewal areas on State Street, Silverton Road, and the North Waterfront areas.

Increase the use of grants to seismically retrofit downtown buildings.

Study the feasibility of a downtown Entertainment District.

Develop options for programming and improvements to revitalize Marion Square Park.

Research fees and penalties for long-term retail vacancies downtown.

Explore alternative means and methods for adaptive re-use of older buildings in downtown.

### Critical Infrastructure

Simplify and streamline the City's infrastructure and master planning to better align City Council and community goals for the development and maintenance of a robust infrastructure system.

Develop a robust City asset management program that:

Assesses infrastructure conditions and develops criteria for infrastructure maintenance.

Develops a budget process that identifies maintenance activities.

Develop a general obligation bonding strategy that includes public involvement in its development.

### Sustainable Services

Align City services and available resources and maintain fund balance for the future.

Redesign the City's budget process to incorporate the strategic plan and annual work plan as the driver of budget priorities and resource allocation.

Define Salem's core services and identify the desired level of service the City can provide as a full-service city and the associated costs.

Explore new, additional revenue sources and review potential adjustments to fees for General Fund services to close the gap between the cost of services to be provided and available current revenues to support those services.

Explore the financial, legal, and operational feasibility of alternative methods of service delivery, such as contracting for and consolidation of services, and the creation of a service district within compression limitations.

Identify service areas where independent, programmatic audits may identify cost-saving opportunities.

### Public Transportation

A public transportation system that meets community needs.

Update intergovernmental agreement between City and Cherriots to address how Transit operates in City right-of-way.

Establish Transit Committee to advise Council on the diverse needs of the community.

Review development regulations that impact the ability of transit to provide effective service.

### Environmental Action

Prepare a community-wide environmental strategy.

Develop a Climate Action Plan that prioritizes reductions of greenhouse gas emissions in collaboration with our local utilities, State Agencies, and educational institutions.

Inventory community impact on the environment, to include greenhouse gas inventory.

*Fall/Winter*

### Annual Community Report

How we measure progress

### Forecasting

### Residential Satisfaction Survey

### Community

- Resident satisfaction survey, open houses
- Boards and Commissions
- Neighborhood Associations

*Spring (April, May)*

### City of Salem Budget

### City Council

- Strategic Plan: mission, vision, values and goals
- Policy priorities

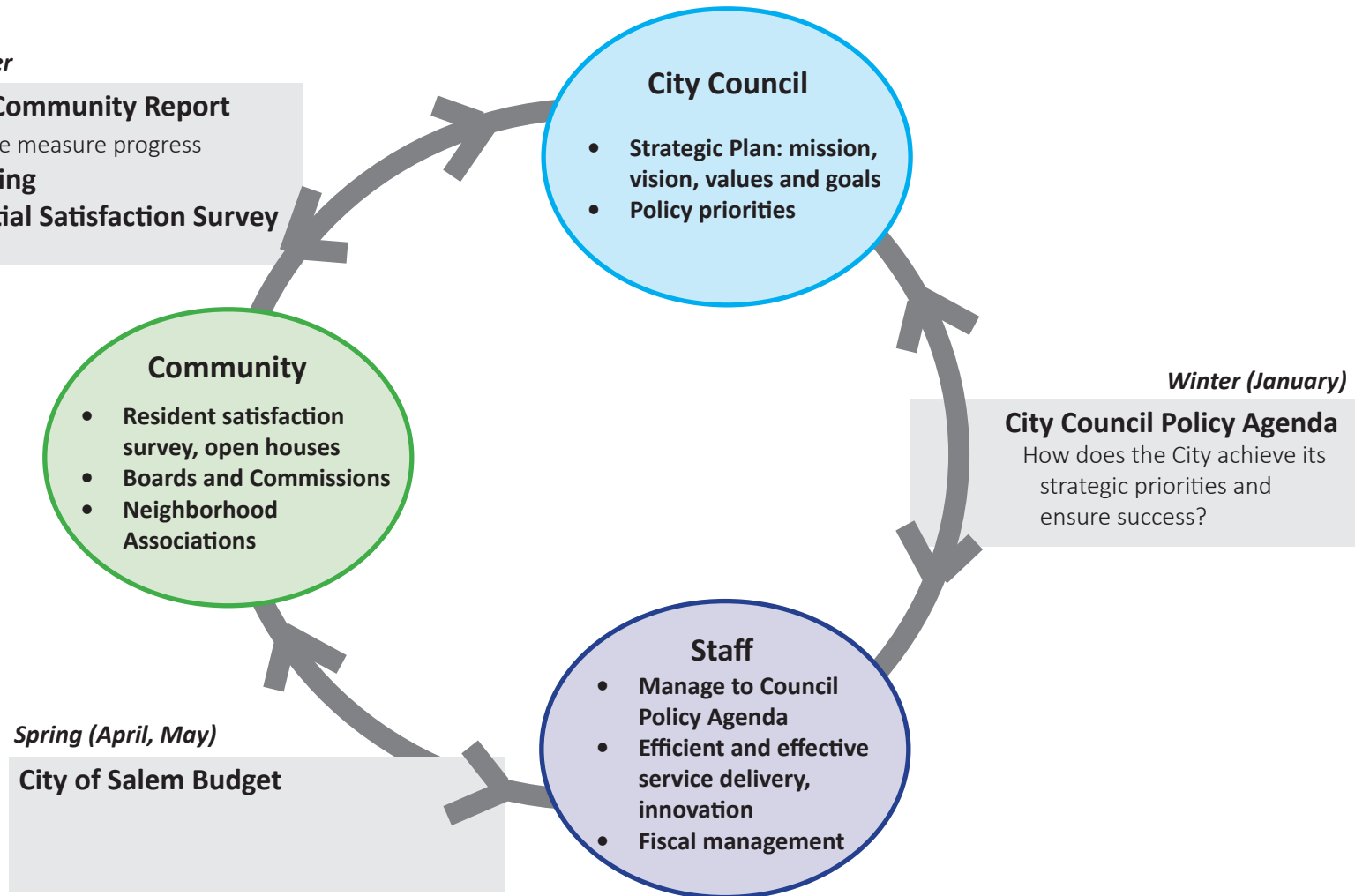
*Winter (January)*

### City Council Policy Agenda

How does the City achieve its strategic priorities and ensure success?

### Staff

- Manage to Council Policy Agenda
- Efficient and effective service delivery, innovation
- Fiscal management



**2018 City Council Policy Agenda**

<b>Work Session</b>	<b>Topic</b>
<b>February 20</b>	
<b>March 19</b>	
<b>April 16</b>	<i>Affordable Housing, Homelessness and Social Services</i> Maximize resources for and coordination of local social services and align Salem's existing social service funding with strategic initiatives.
<b>May 21</b>	(Downtown Streetscape)
<b>June 18</b>	<i>Critical Infrastructure</i> <ul style="list-style-type: none"> <li>Better understand asset needs, funding <ul style="list-style-type: none"> <li>Robust <b>City asset management program</b></li> <li><b>General obligation bonding strategy</b></li> </ul> </li> </ul>
<b>July 16</b>	<i>Sustainable Services</i> <ul style="list-style-type: none"> <li>Direction on resource allocation or <b>revenue sources</b></li> </ul>
<b>August 20</b>	(Utility rate setting)
<b>September 17</b>	<i>Sustainable Services</i> Priority Based Budgeting update, input
<b>October 15</b>	<b>City Council Policy Agenda/Strategic Plan Update</b> <ul style="list-style-type: none"> <li>Annual Community report; outreach and engagement</li> </ul>
<b>November 19</b>	
<b>December 17</b>	
<b>January 22, 2019</b>	<b>City Council Policy Agenda</b> <i>Sustainable Services</i> <ul style="list-style-type: none"> <li>City's <b>core services and desired level of service</b></li> <li>Direction on <b>alternative service delivery</b></li> </ul>



# Capital Improvement Grant Program

## Riverfront Downtown Urban Renewal Area

To enable creative and flexible approaches to stimulate and finance its vision, the Riverfront Downtown Urban Renewal Area Capital Improvement Grant Program was created as a funding option for property owners.

### Requirements

To be eligible for a Small or Large Project Grant, all projects must meet at least one of the following Strategic Action Plan Objectives:

### Objectives:

- \*New Construction
- \*Mixed-Use, including housing
- \*Exterior Beautification Projects
- \*Alley Improvements
- \*Historic Preservation Projects that require Historic Landmarks Review
- \*Expansion of existing business, retention or recruitment of a new business that results in creating new jobs
- \*Upper Floor Renovation - improvements that make currently un-leasable space to a level it can be occupied

*Grant funding is contingent upon available funds. Additional terms may apply and terms are subject to change.*

### Small Project Grant

Total Project Cost	Grant Amount
\$10,000 - \$100,000	50% of Eligible Costs

### Large Project Grant

Total Project Cost	Grant Amount
\$100,001 - \$300,000	\$50,000 + 25% of eligible project cost over \$100,000
\$300,001 - \$600,000	\$100,000 + 20% of eligible project cost over \$300,000
\$600,001 +	\$160,000 + 15% of eligible project cost over \$600,000
Maximum Grant \$300,000	

### Eligible Grant Recipient:

Property owners who show fee title. Tax-exempt property is not eligible.

### Eligible Property:

Property must be located within the Riverfront-Downtown Urban Renewal Area.

Properties that are 100% residential are excluded.

### Eligible Activities:

HVAC, plumbing, storefronts, sprinklers, electrical, elevators, alley improvements, seismic, skylights, murals, windows, etc.

*This is an information-only document. For more information, please contact the Urban Renewal Agency of the City of Salem at 503-588-6178 or visit [www.cityofsalem.net/financialresources](http://www.cityofsalem.net/financialresources). Si necesita ayuda para comprender esta información, por favor llame 503-588-6178.*

Page  
Break



## Staff Report

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**File #:** 18-41

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**Date:** 1/22/2018

**Item #:** 5.b.

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**TO:** Mayor and City Council

**FROM:** Steve Powers, City Manager

**SUBJECT:**

City Comments regarding Detroit Dam Downstream Passage Project

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

**RECOMMENDATION:**

Information Only.

**Attachments:**

1. Willamette Valley Project Overview.
2. Technical Comments for the Environmental Impact Statement



# WILLAMETTE VALLEY PROJECT OVERVIEW

Timothy A. Ernster  
Operations & Maintenance Manager  
Willamette Valley Project  
20 December 2017



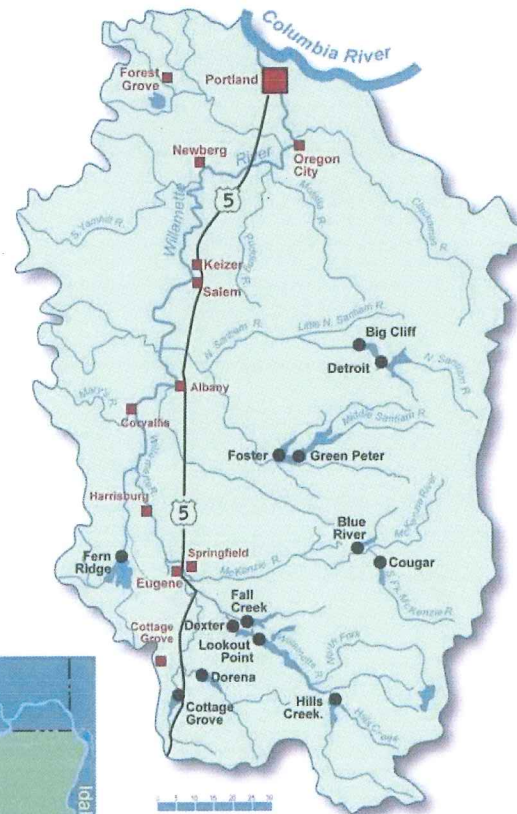
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# The Willamette Basin



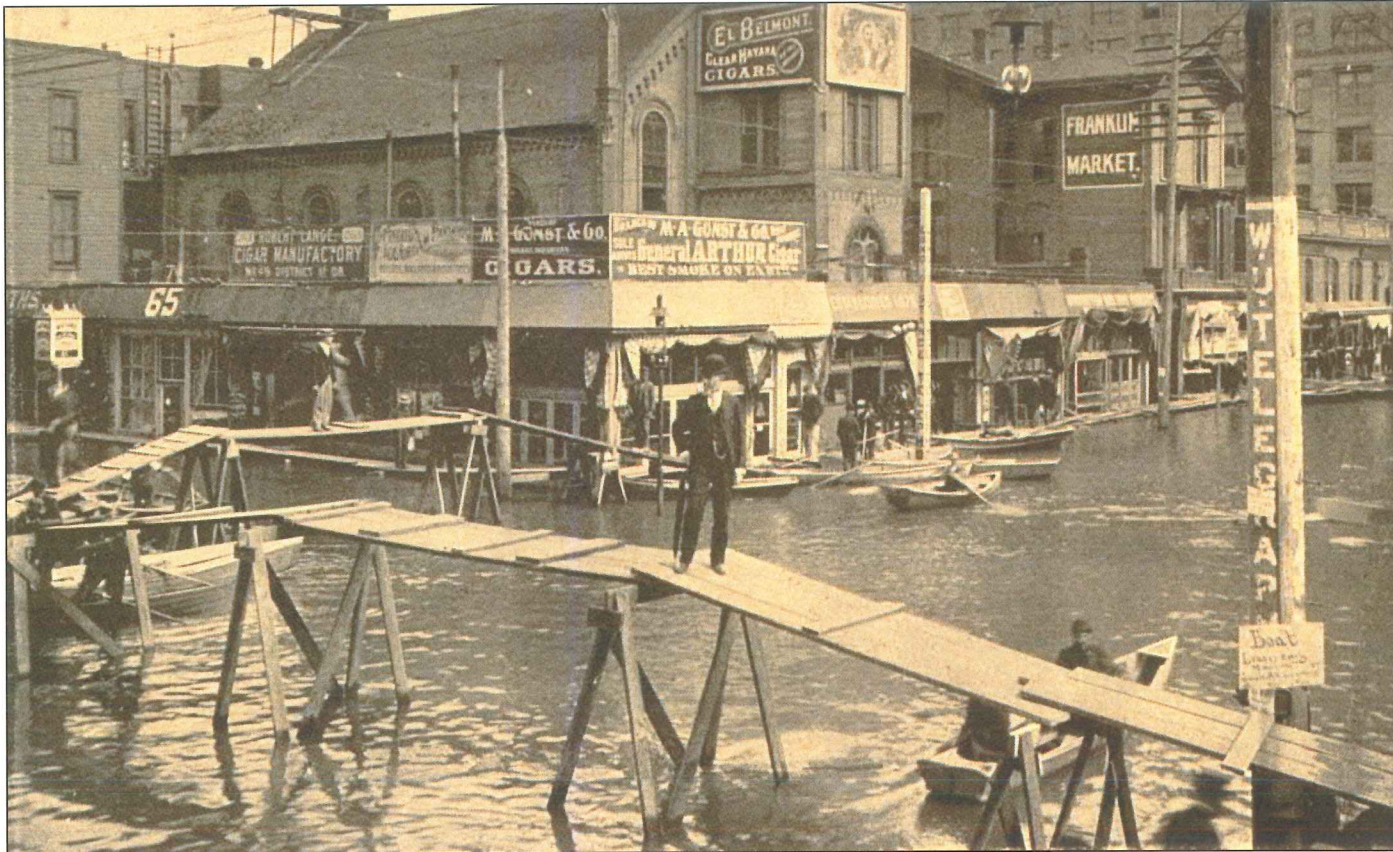
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1894 flood, downtown Portland, Willamette River



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# HISTORY

**1936-** Congress passed Flood Control Act authorizing Corps to survey flood problems in the Willamette Basin

**1938-** Flood Control Act provided for the first seven dams and storage reservoirs



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# AUTHORIZED PURPOSES

- Flood risk management
- Hydropower
- Navigation
- Water quality
- Irrigation
- Municipal & industrial water supply
- Recreation
- Fish & wildlife



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# HISTORY

**1940-** Corps began construction of Fern Ridge and Cottage Grove dams

**1950** and **1962** Flood Control Acts authorized additional structures

**1969-** Blue River Dam was completed



Fern Ridge Dam construction 1940



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# HISTORY

**1973** - Congress passes Endangered Species Act

**1993** - Oregon chub listed as endangered

**1999** - Bull trout, spring chinook, and winter steelhead are listed as threatened

**2000** - Initial Corps biological assessment is completed

**2008** - Biological Opinion is issued by NMFS



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# WATER MANAGEMENT SUMMARY

13 dams of the Willamette Valley are operated as a single system

Corps must balance between competing authorized purposes

Water management decisions include collaboration with agency partners

## The Willamette Basin



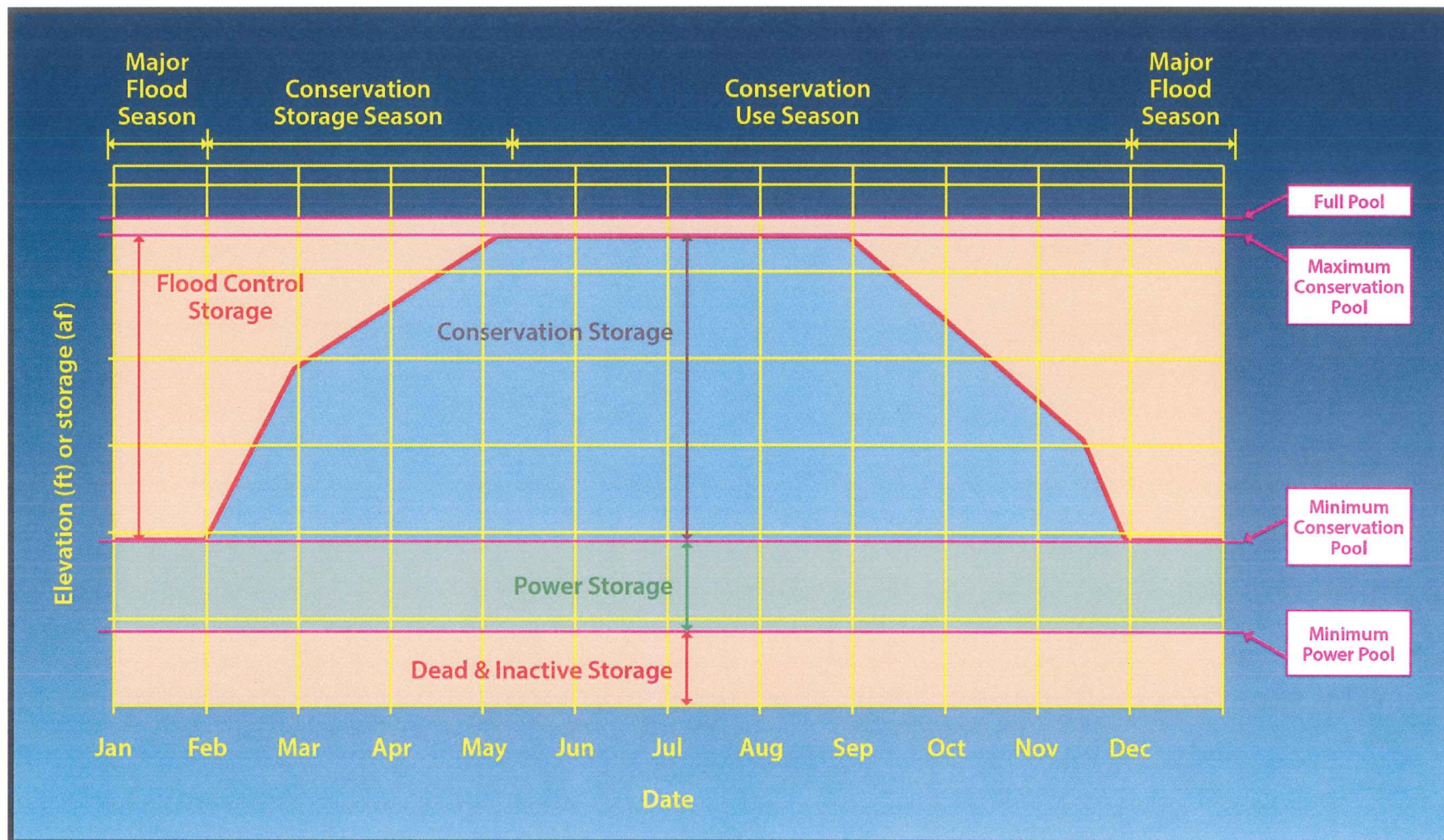
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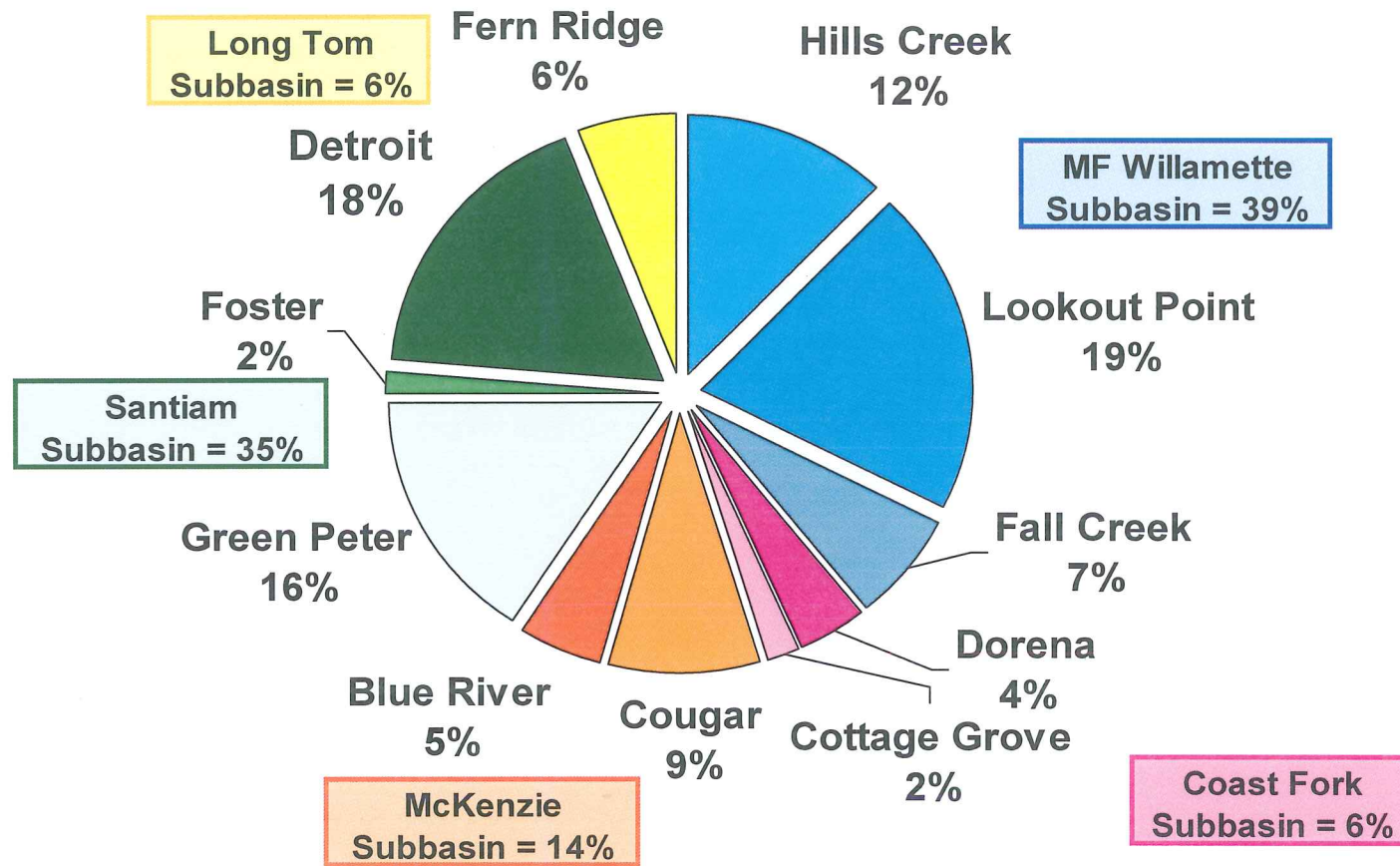


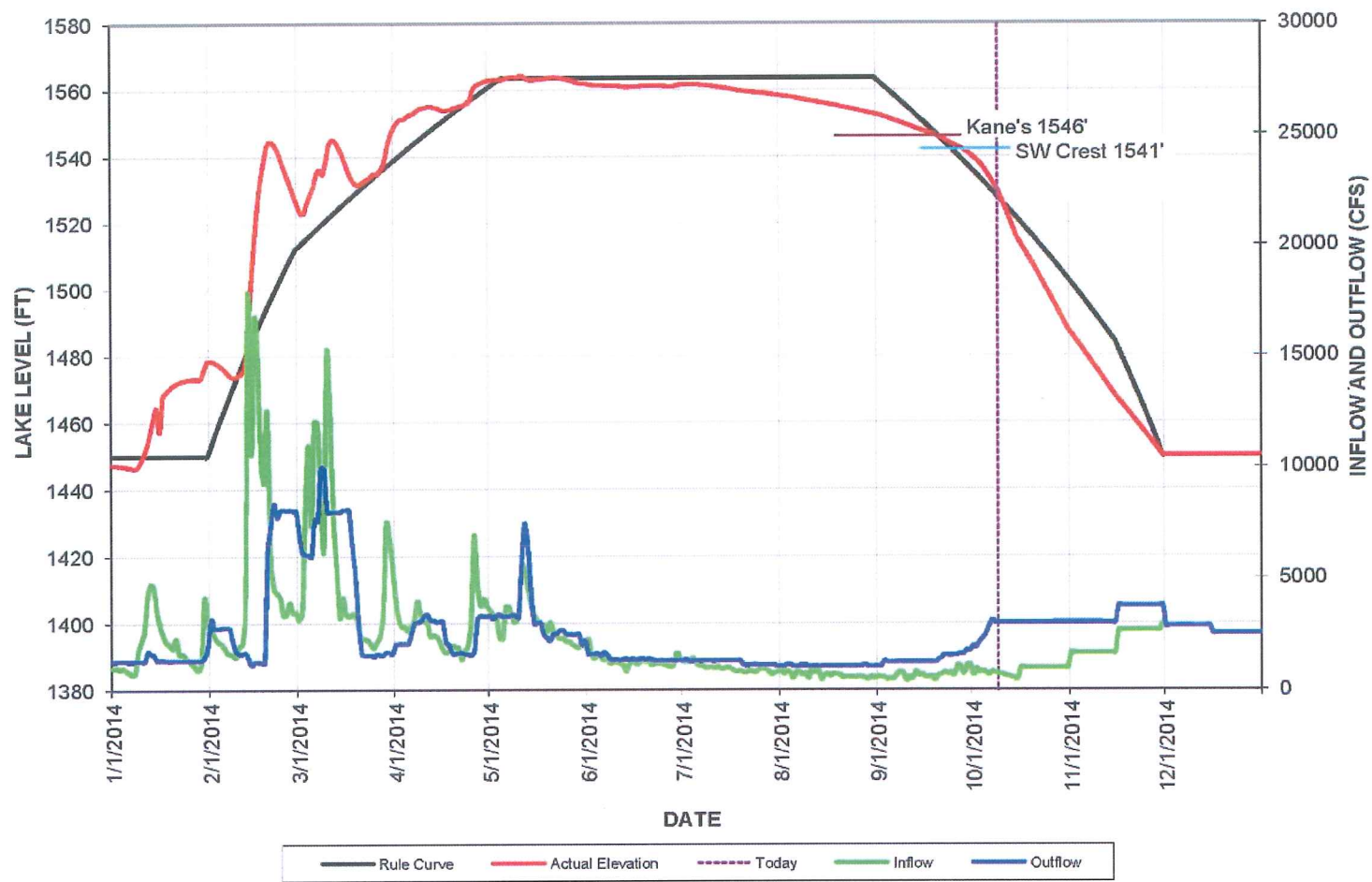




# WVP Conservation Storage

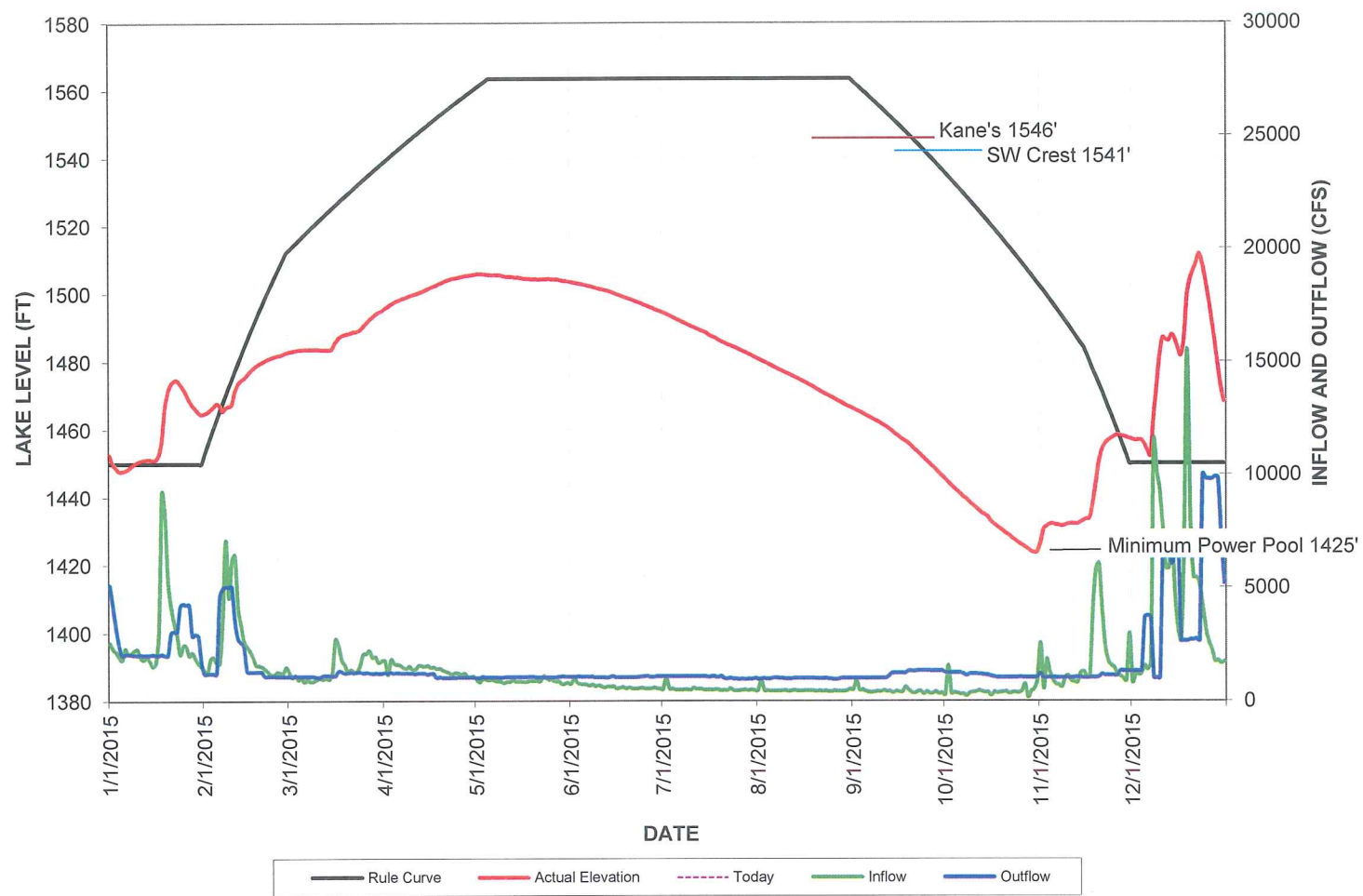
Total = 1.6 million acre-feet





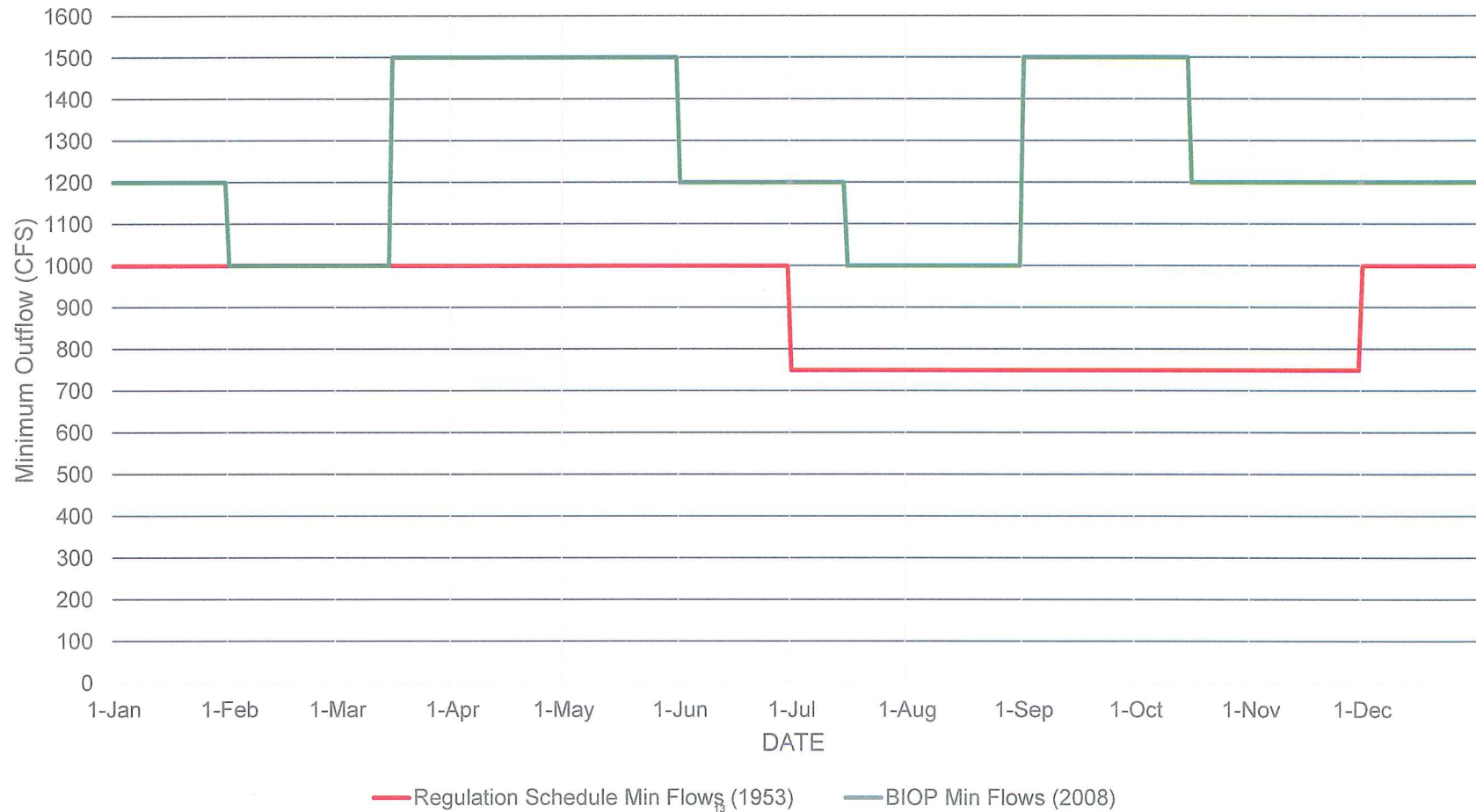
Detroit Reservoir- 2014



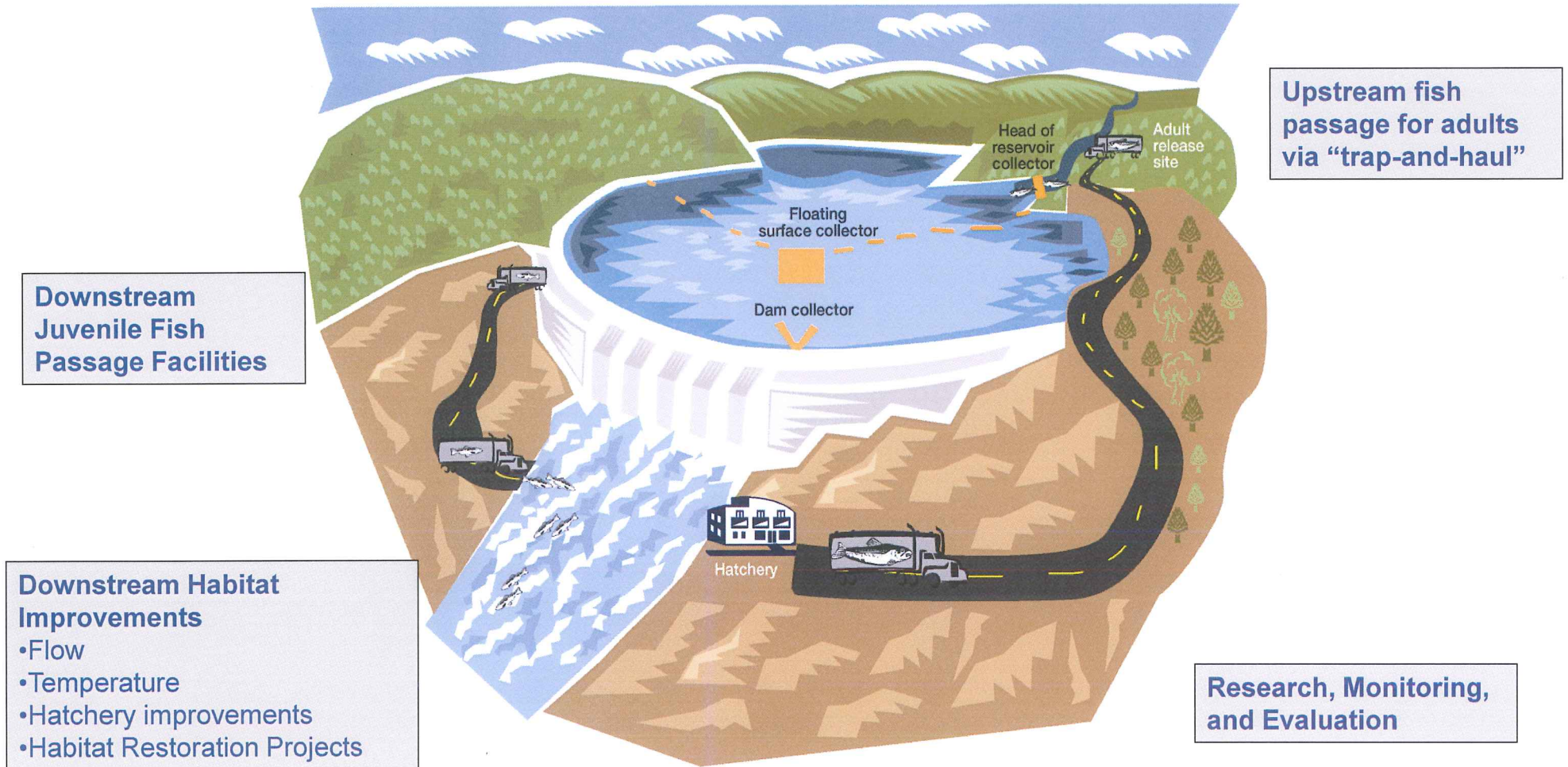


Detroit Reservoir- 2015

# CHANGES TO MINIMUM OUTFLOWS



# WILLAMETTE BIOLOGICAL OPINION ACTIONS





## Detroit Dam Downstream Passage Project Overview



The purpose of the Detroit Downstream Passage Project is to:

- To provide downstream juvenile fish passage at Detroit Dam for threatened Upper Willamette River Chinook salmon and steelhead.
- To meet water temperature requirements for these threatened fish by providing temperature control for water released from Detroit Dam.



Detroit Dam on the North Santiam River near Detroit, Marion County, Oregon. View is upriver to the southeast.  
(11 July 1990)

### **Lead Agency**

U.S. Army Corps  
of Engineers

### **Cooperating Federal Agencies**

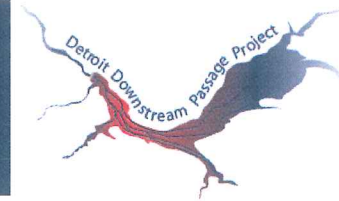
Bonneville Power Administration  
National Marine Fisheries  
Service  
U.S. Fish and Wildlife Service  
U.S. Forest Service

### **Cooperating State Agencies**

Oregon Fish and Wildlife  
Service  
Oregon Water Resources  
Department  
Oregon Parks and Recreation  
Department

# Detroit Dam Downstream Passage Project

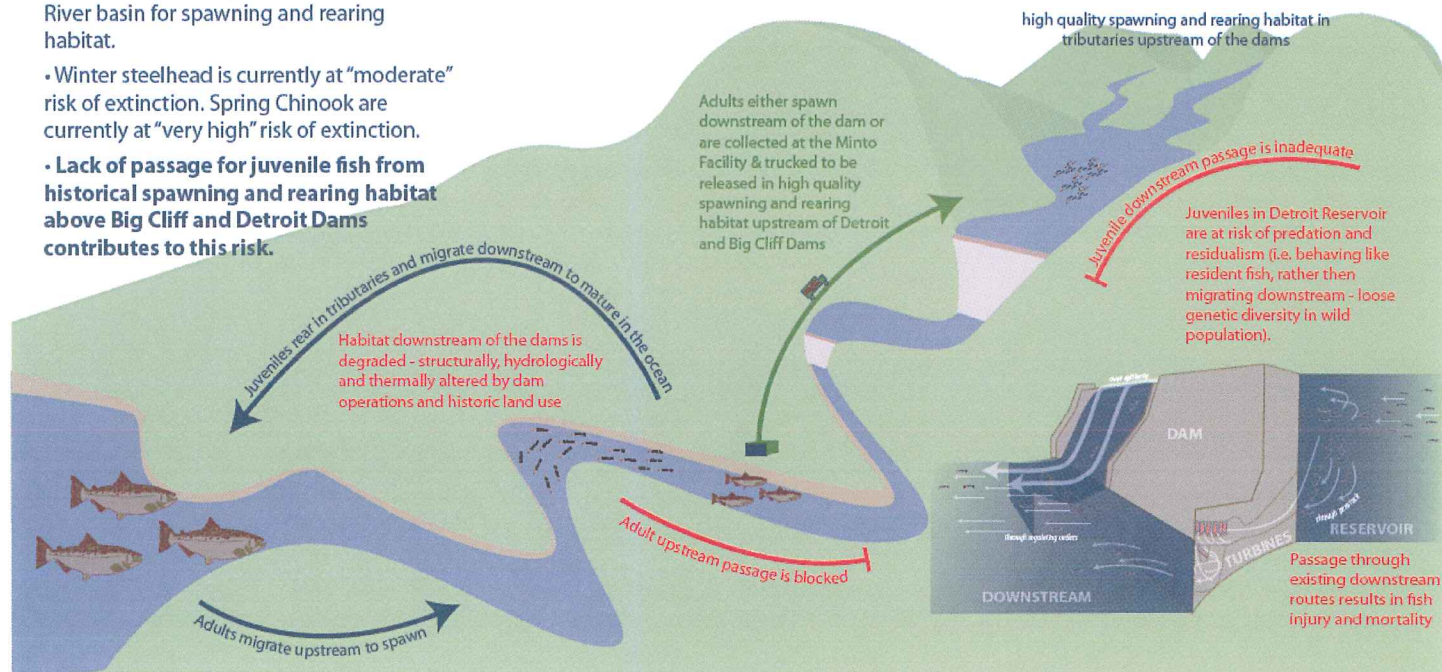
## Problem: Lack of Juvenile Fish Passage



### Why is the project needed?

- Populations of threatened Upper Willamette River spring Chinook salmon and winter steelhead rely on the North Santiam River basin for spawning and rearing habitat.
- Winter steelhead is currently at "moderate" risk of extinction. Spring Chinook are currently at "very high" risk of extinction.
- **Lack of passage for juvenile fish from historical spawning and rearing habitat above Big Cliff and Detroit Dams contributes to this risk.**

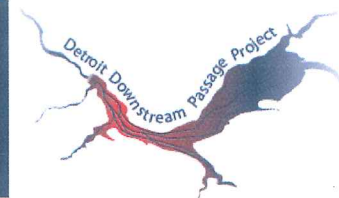
### The 2008 National Marine Fisheries Service & U.S. Fish and Wildlife Service Jeopardy Biological Opinions require downstream passage for listed species around Detroit and Big Cliff Dams





# Detroit Dam Downstream Passage Project

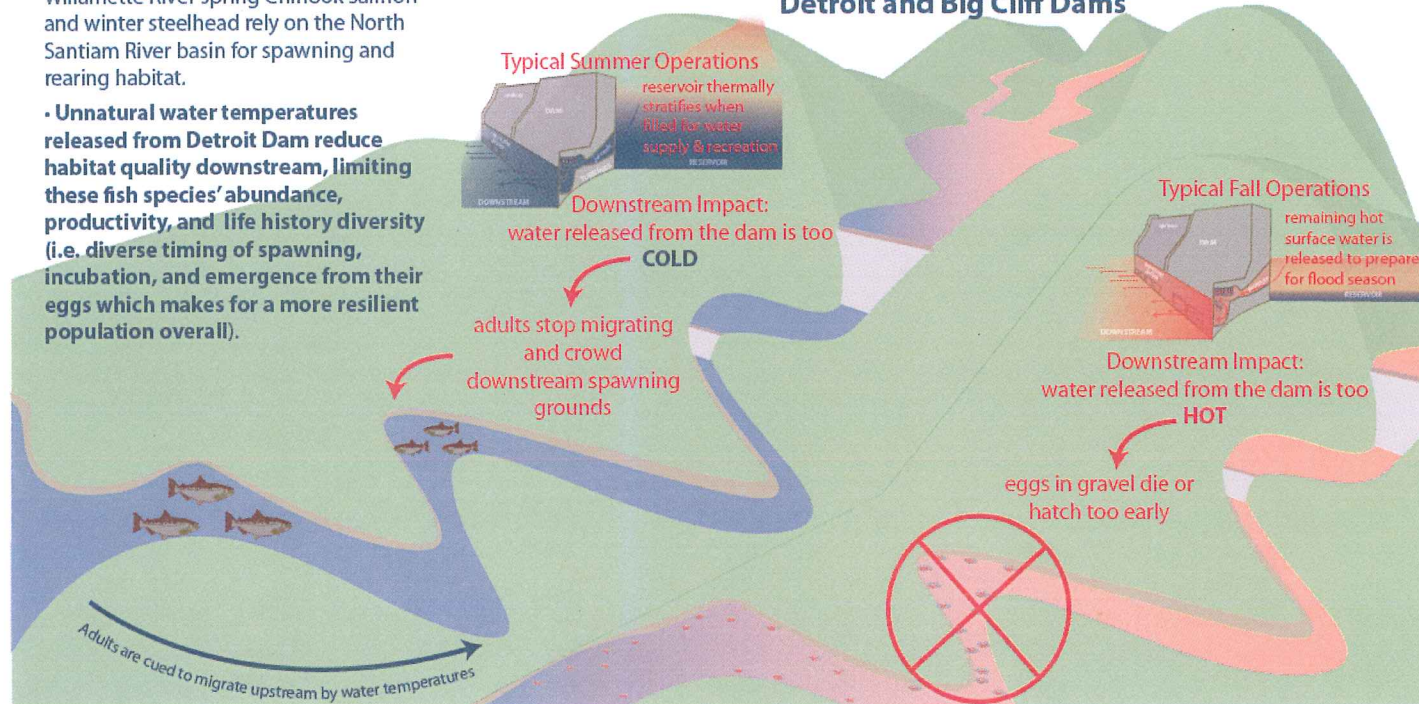
## Problem: Downstream Temperatures



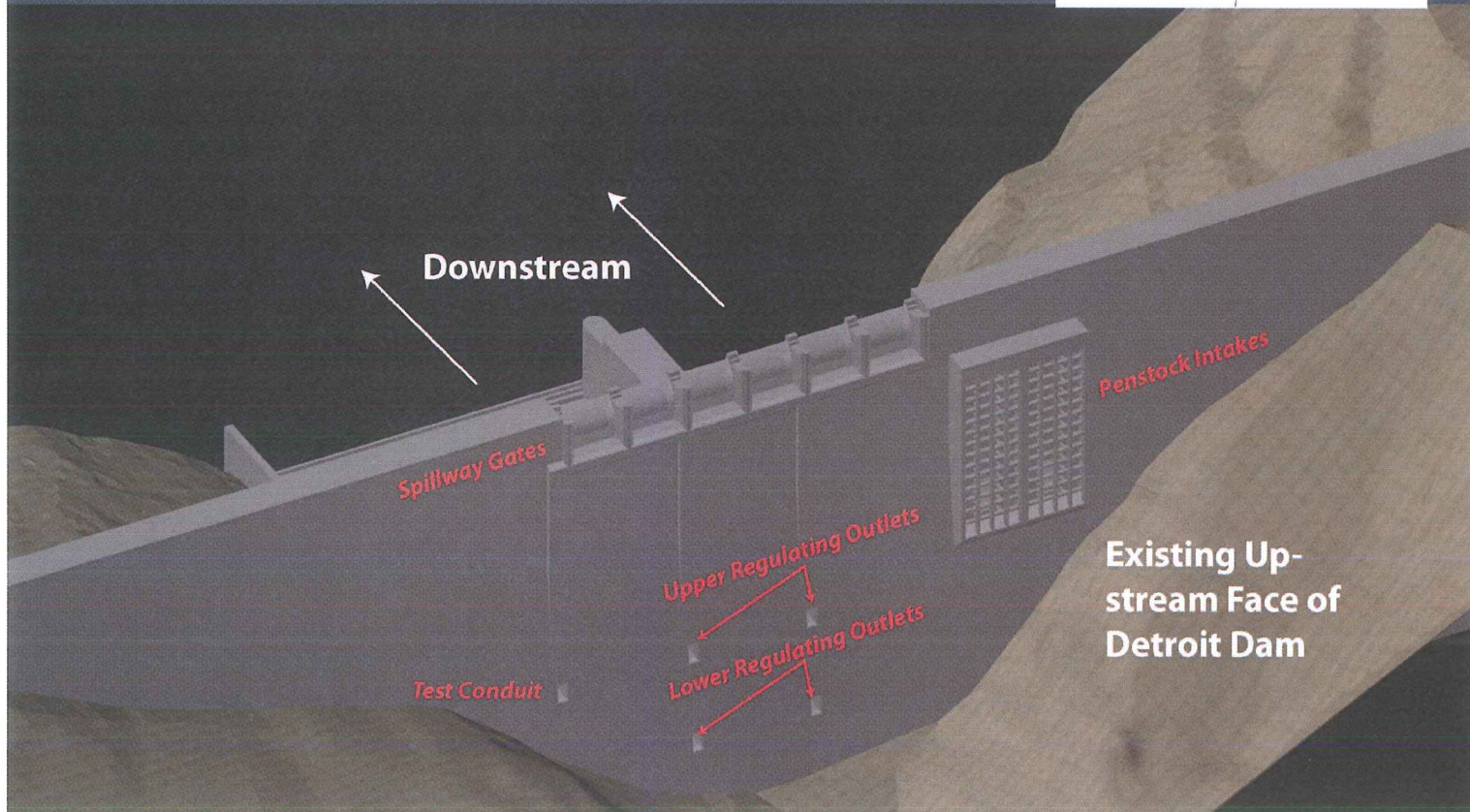
### Why is the project needed?

- Populations of threatened Upper Willamette River spring Chinook salmon and winter steelhead rely on the North Santiam River basin for spawning and rearing habitat.
- **Unnatural water temperatures released from Detroit Dam reduce habitat quality downstream, limiting these fish species' abundance, productivity, and life history diversity (i.e. diverse timing of spawning, incubation, and emergence from their eggs which makes for a more resilient population overall).**

### The 2008 National Marine Fisheries Service & U.S. Fish and Wildlife Service Jeopardy Biological Opinions require temperature control at Detroit and Big Cliff Dams



# Detroit Dam Downstream Passage Project Detroit Dam Existing Water Outlets

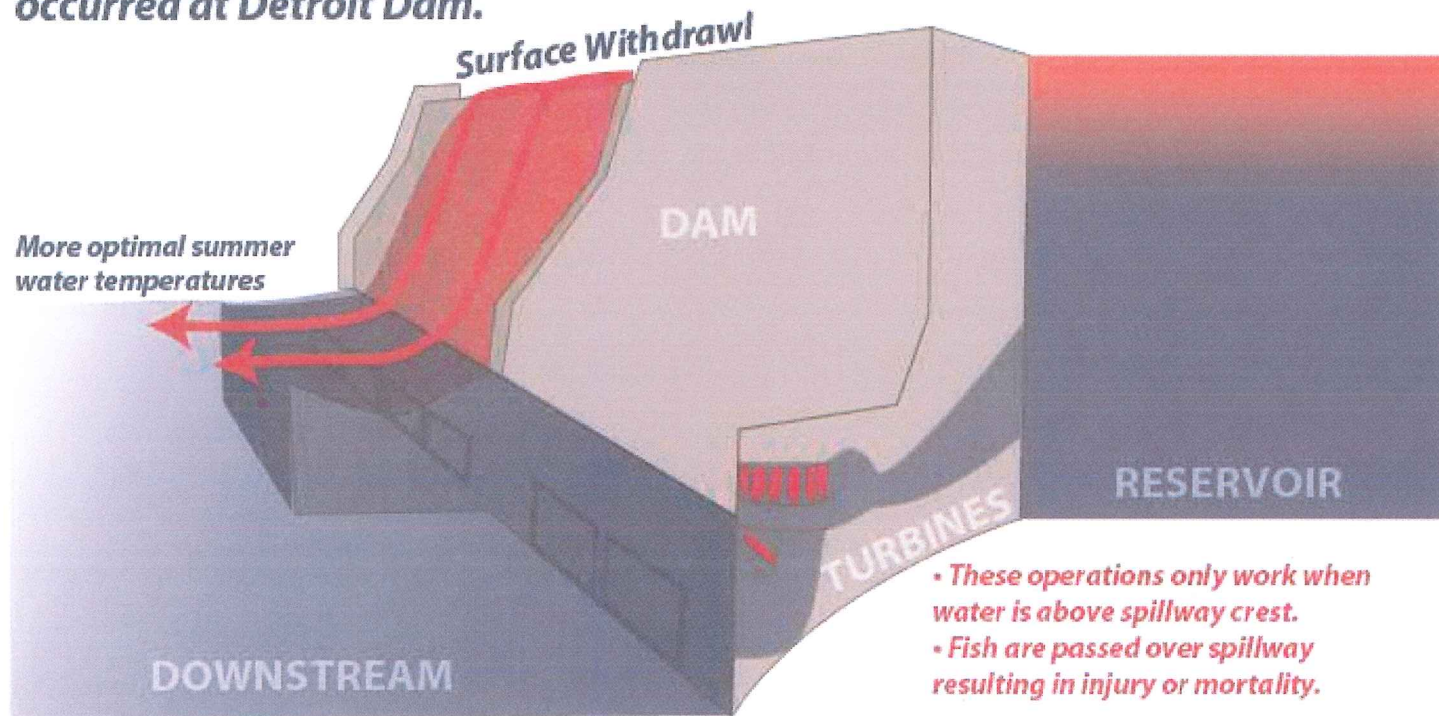




## Detroit Dam Downstream Passage Project Temperature Control Operations



***Since 2007, interim temperature operations have occurred at Detroit Dam.***



# ENGINEERING AND ALTERNATIVES ANALYSIS PROCESS

## EDR (Engineering Documentation Report) – 2009-2016 (Complete)

- Determine problem
- Determine solutions that would solve the problem
- Initial Alternatives Analysis and Screening

## DDR (Design Documentation Report) – In Progress

- Construction Alternatives Analysis
  - Develop design, confirm constructability
- Environmental Impacts Assessment – NEPA
  - public review and comment
- Refine/optimize the recommended solution
- Detailed Cost Estimate
- 24 months

## P&S (Plans & Specifications) – Future Actions

- Develop the design completely
- Drawings and Specifications become legal construction contract
- 24 months (will take place in 2 phases)

## Construction

- 24-36 months (will take place in 2 phases)



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# Detroit Dam Downstream Passage Project Temperature Control Alternatives Analysis



## Initial Array of Alternatives

- Temperature Control Tower with Selective Withdrawal Structure (SWS) – Floating Outlet Combined with Lower Fixed Outlet
- Use Existing Equipment – Optimum Operations\*
- Restrict Pool Elevations\*
- Floating (Surface) Withdrawal Structure\*
- Modify Existing Equipment for Lower Flows (Spillway and RO Gates)\*
- Pumps and/or Aerators in Nearfield Forebay\*
- New Outlets in Dam\*
- Heating/Cooling System for Water Release\*
- Pump Water Over Dam\*
- Temperature Control Curtain\*
- Supplement Existing Equipment with Simple SWS\*
- Floating Surface Outlet\*
- Deep Reservoir Drawdown\*
- Prioritization of ROs under Typical Winter Reservoir Elevations\*

A full description of the screening decisions, including associated data and analysis, will be provided in the Environmental Impact Statement for public review.

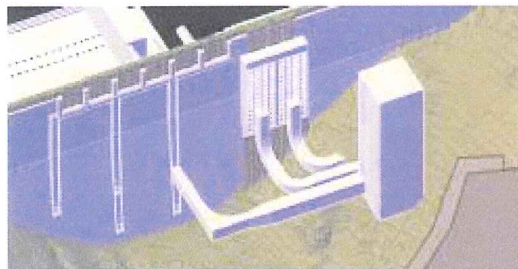
## Alternatives Screening

Alternatives marked with an asterisk were screened out based on one or more of the following screening criteria:

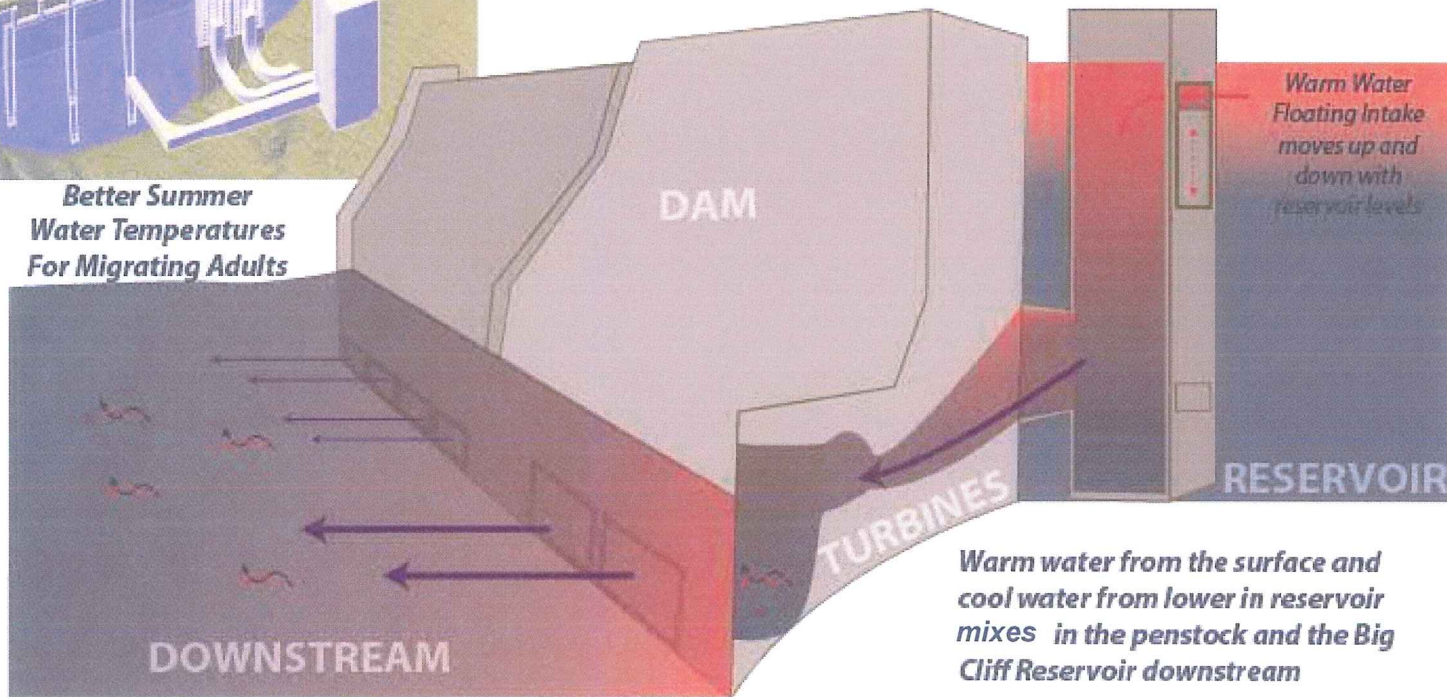
- Would not meet downstream temperature targets (based on modeling results).
- Would meet temperature targets in cool-wet years but not dry-hot years (based on modeling results).
- Would negatively impact Flood Risk Management.
- Would have very large, long term impacts on recreation, hydropower production, irrigation and water supply needs as well as instream flow requirements.
- Would have negative impacts on water quality.
- Would not be structurally stable in an earthquake.
- Would not meet performance standards.
- Not technical feasibility or practical.



## Detroit Dam Downstream Passage Project Temperature Control Tower



**Better Summer  
Water Temperatures  
For Migrating Adults**

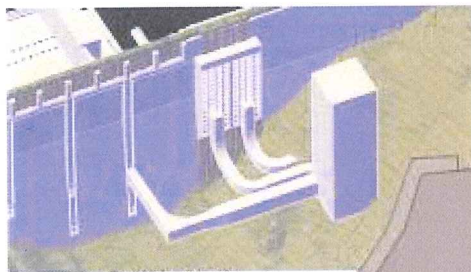


**Temperature Control Tower  
pulls warm water from surface.**

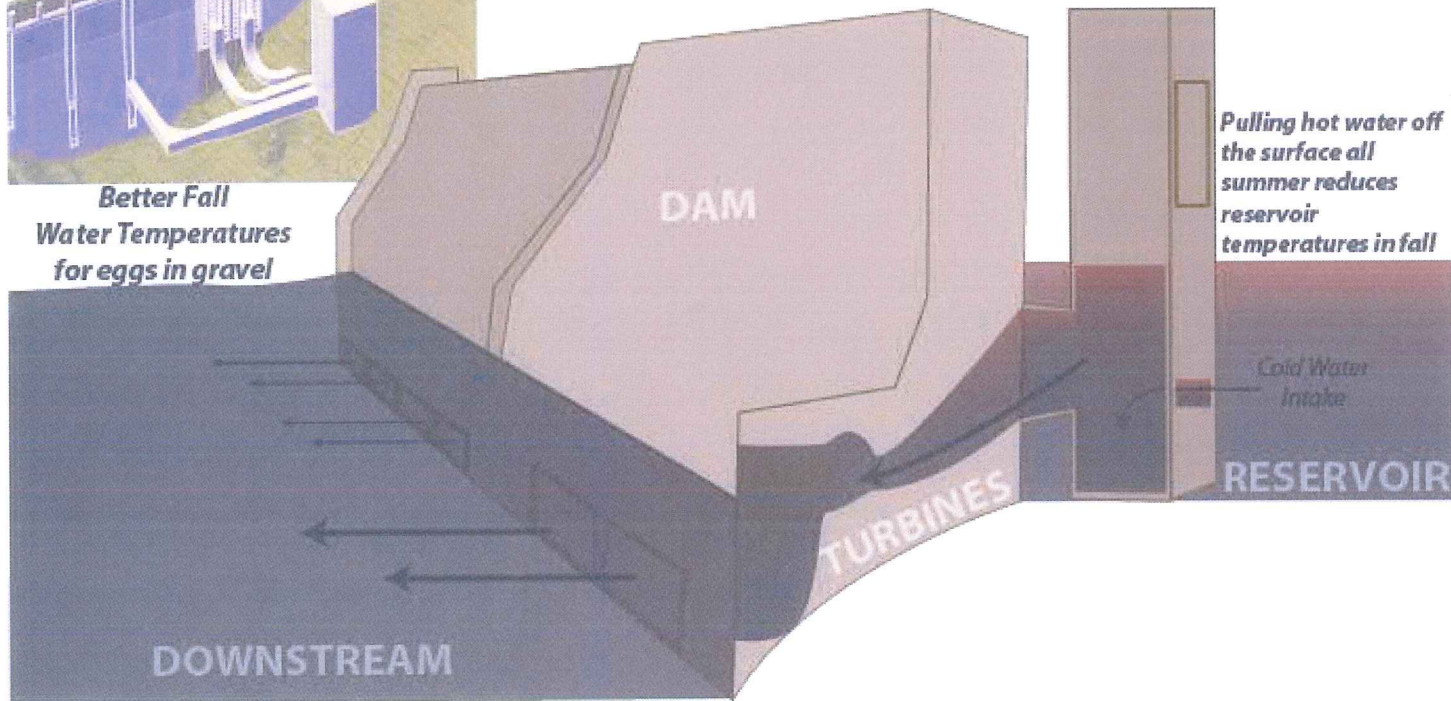
**Warm Water  
Floating Intake  
moves up and  
down with  
reservoir levels**

**Warm water from the surface and  
cool water from lower in reservoir  
mixes in the penstock and the Big  
Cliff Reservoir downstream**

## Detroit Dam Downstream Passage Project Temperature Control Tower



**Better Fall  
Water Temperatures  
for eggs in gravel**



**Reservoir drawdown  
for flood season**

**Pulling hot water off  
the surface all  
summer reduces  
reservoir  
temperatures in fall**

**Cold Water  
Intake**

**RESERVOIR**

**TURBINES**

**DOWNSTREAM**



1450' - 1/3 stored water  
1310' - only 3/1.

## Detroit Dam Downstream Passage Project Construction Alternatives



### Alternative 1. Full Construction in the Dry- Prolonged Low Draw Down

- 2 years with reservoir levels remaining at 1310' elevation in order to construct project in the dry.

### Alternative 2. Partial Construction in the Wet- Short Term Low Draw Down

- 1 season with reservoir levels at 1310' to construct project foundation in the dry. Construct remainder of project in the wet.

### Alternative 3. Full Construction in the Dry - Variable Draw Down with Cofferdam

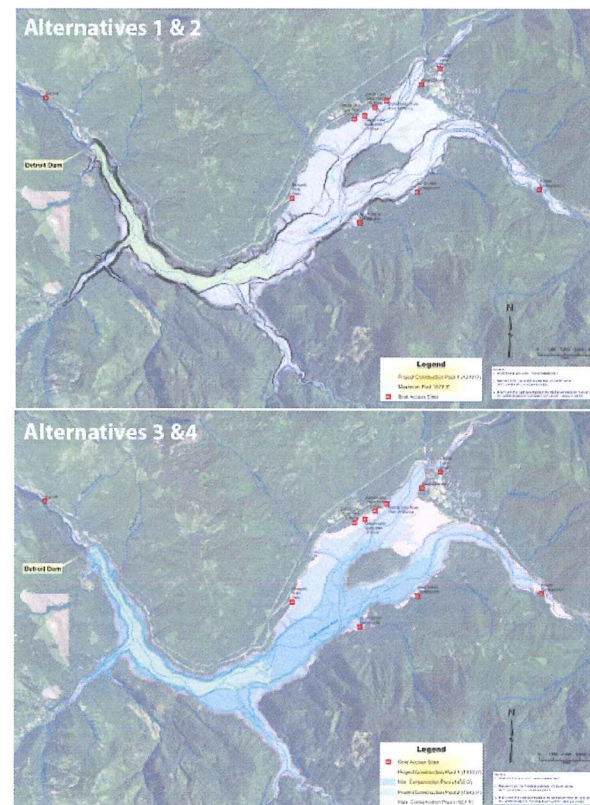
- 2 years with reservoir at reduced elevations depending on coffer dam capabilities. Start at 1310' reservoir elevation to build partial height cofferdam to protect, to a point, from elevation fluctuations. As construction height grows, coffer dam and reservoir elevations will be raised.
- Likely not feasible due to valley geometry and height required.

### Alternative 4. Full Construction in the Dry - Variable Draw Down

- 1 season with reservoir levels at 1310' to construct project foundation in the dry and gradually raise water elevation together with construction height, always building in the dry.

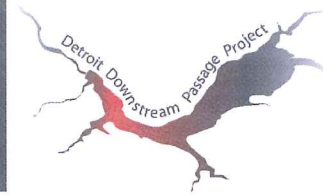
### Alternative 5. Build in the Wet

- 2+ years with normal reservoir elevations.
- Requires underwater blasting (potential water quality impacts) and no hydropower production (diver safety).
- Likely more expensive than other alternatives with high safety and implementation risks.





## Detroit Dam Downstream Passage Project Downstream Passage Alternatives Analysis



### Initial Array of Alternatives

- Head-of-Reservoir Collection\*
- Floating Surface Collector, variations include:
  - Floating Surface Collector with No Nets\*
  - Floating Surface Collector with Partial Depth Nets\*
  - Floating Surface Collector with Full Depth Nets and Partial Outlet Coverage\*
  - Floating Surface Collector with Full Depth Nets and Full Outlet Coverage\*
- Selective Withdrawal Structure as Fish Passage Structure\*
- Selective Withdrawal Structure with Weir Box
- **Selective Withdrawal Structure with Floating Screen Structure (need for nets and outlet coverage to be determined)**

### Alternatives Screening

Alternatives marked with an asterisk were screened out based on one or more of the following screening criteria:

- Would not meet downstream temperature targets.
- Would require additional fish passage measures to meet performance standards.

### Preferred Alternative Proposes Two Phases

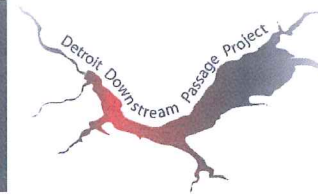
Phase 1: Construct Temperature Control Tower.

Assess efficacy of recently constructed Floating Screen Structures at other sites

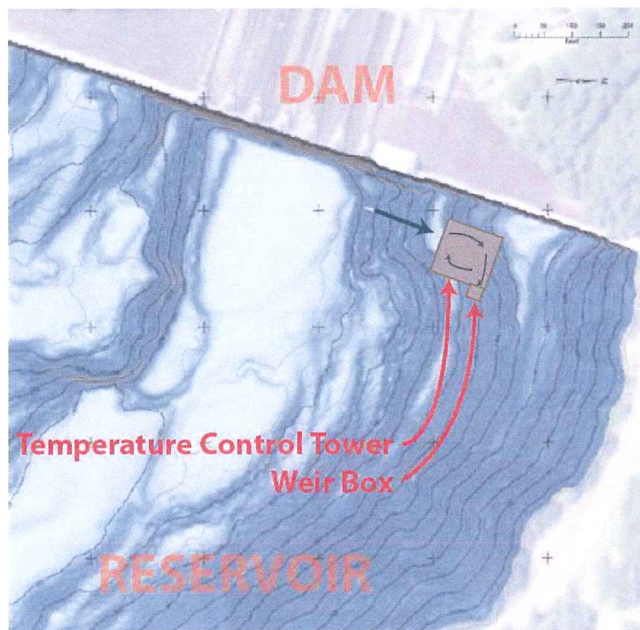
Phase 2: Construct Floating Screen Structure

A full description of the screening decisions, including associated data and analysis, will be provided in the Draft Environmental Impact Statement released for public review.

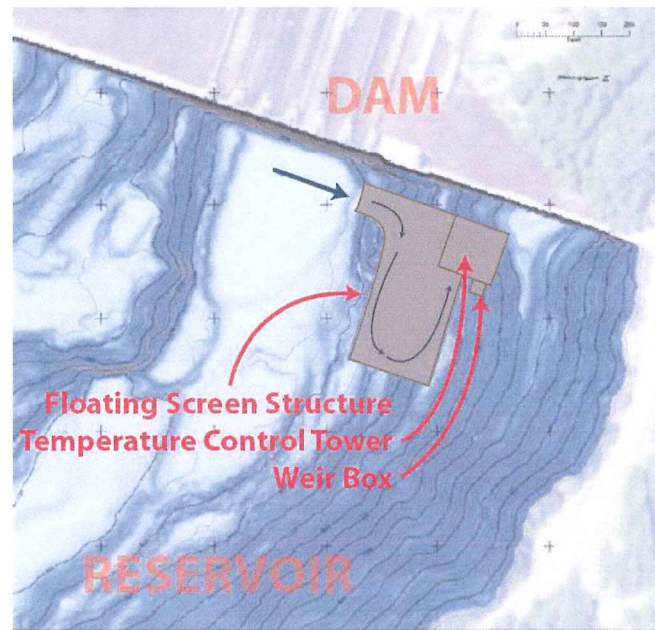
# Detroit Dam Downstream Passage Project Downstream Passage Alternatives Analysis



## PHASE 1

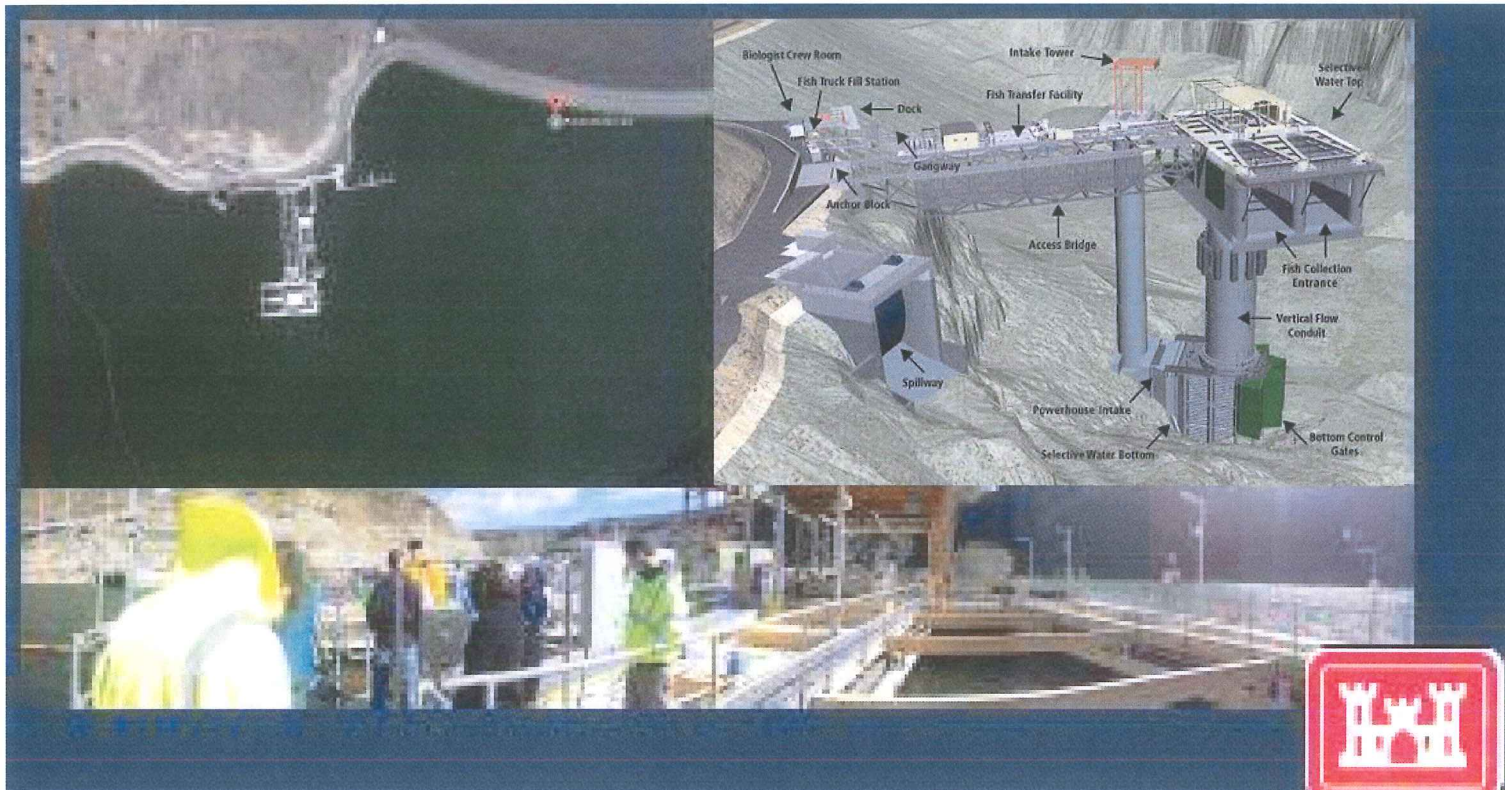


## PHASE 2





## FLOATING SCREEN STRUCTURE EXAMPLE



Pelton Round Butte Structure (near Madras, Oregon)

- Screens fish from the water going into temperature control structure
- All flow is gravity feed prior to water entering power house intake or regulating outlets

# Detroit Dam Downstream Passage Project Construction Staging Alternatives



## What is a Staging Area?

Construction staging areas are locations used for the storage of construction related equipment and materials such as vehicles and material stockpiles.

Additionally, staging areas may be used to construct parts of the proposed project that will later be floated into place for installation.

Staging areas may require the construction of a temporary coffer dam to dewater an area of the near shore reservoir for pieces of the proposed project to be constructed in the dry.



1. Bench location along Detroit Powerhouse Access Road



2. Western portion of the visitor parking lot immediately adjacent to State Route 22.



3. Precast Yard. Dry at fall/winter pool levels



4. Mongold State Park Day Use Area



5. Detroit Flats Day Use Area





# CURRENT STATUS

## Developing Design Documentation reports

- Temperature Control Tower, Weir Box, and Floating Screen Structure
  - determining Preliminary Design Details and system interface for all three features with the dam
- Assess construction methods and staging areas

## Environmental Impacts Analysis per the National Environmental Policy Act (NEPA)

### – NEPA Scoping & Public Engagement

- Goal: Identify resources of concern (e.g. biological resources, air quality, water quality, water supply, hydropower, recreation, aesthetics, cultural resources, etc.) that could be impacted by the construction, operations, and maintenance of the project.
- Product: Draft a scoping report: summary of the issues to be evaluated in the EIS, a list of who participated in the scoping process, and the views of those participants.

### – Drafting Environmental Impact Statement

- Characterize existing conditions
- Assess the direct, indirect, and cumulative impacts to resources of concern for a reasonable array of alternatives.
- Identify preferred alternative, mitigation measures, and impacts that can't be mitigated.



**US Army Corps  
of Engineers®**  
Portland District



# Detroit Dam Downstream Passage Project NATIONAL ENVIRONMENTAL POLICY ACT PROCESS



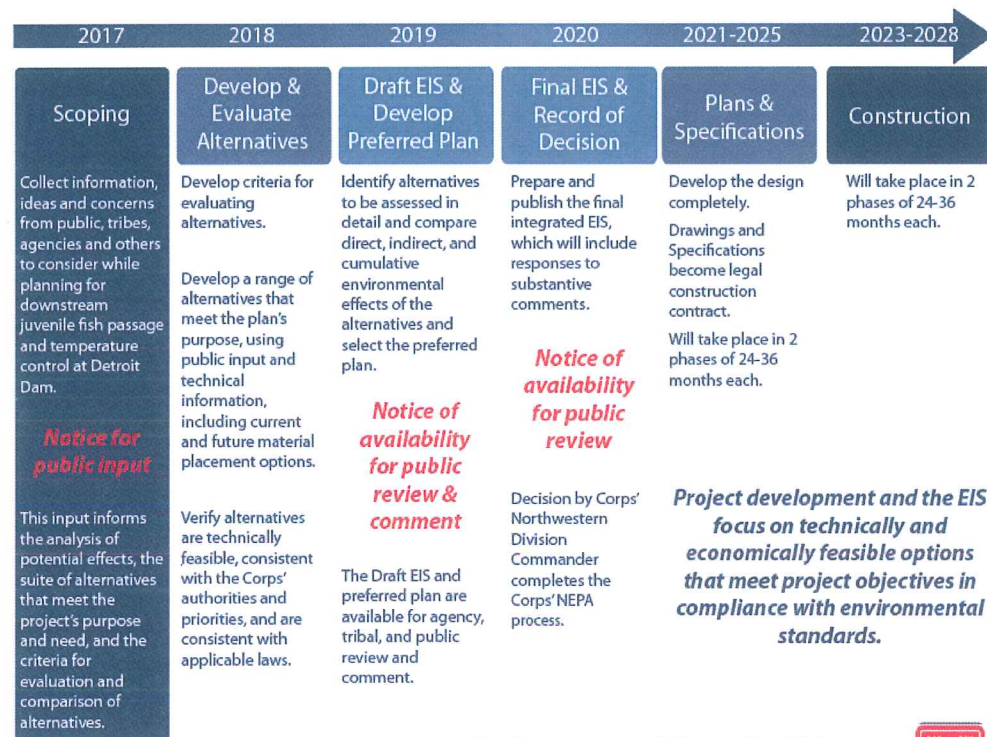
## What is NEPA?

The National Environmental Policy Act (NEPA) is an environmental review process that identifies and evaluates possible effects of a project. The Corps is the lead federal agency under NEPA for preparing the Environmental Impact Statement (EIS). A NEPA EIS will be prepared after scoping.

## How will input during scoping be used?

- Define the breadth of environmental resources and effects to evaluate.
- Identify any additional alternatives not considered.
- Determine new sources of data or information.

**Scoping comments will be taken until January 8th, 2018.**



<https://nwp.usace.army.mil/Willamette/Detroit/fish-passage/>  
email: [detroit.fish.passage@usace.army.mil](mailto:detroit.fish.passage@usace.army.mil)



## Detroit Dam Downstream Passage Project HOW TO PROVIDE INPUT



Input on scoping  
can be provided  
until:

**JANUARY**

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

**2018**



Input can be submitted by email:  
***detroit.fish.passage@usace.army.mil***



Input can be submitted by mail:  
***Kelly Janes, U.S. Army Corps of Engineers***  
***Attn: PM-E, PO Box 2946 Portland, OR***  
***97208-2946***



Input can be submitted in person:  
***Written input can be given to any project***  
***staff member at public meetings***

For information on additional public scoping meetings, visit the project webpage:  
***<https://nwp.usace.army.mil/Willamette/Detroit/fish-passage/> or call: (503) 808-4510***







CITY MANAGER'S OFFICE

555 Liberty St SE / Room 220 • Salem, OR 97301-3503 • (503) 588-6255 • Fax (503) 588-6354

January 19, 2018

Kelly Janes  
U.S. Army Corps of Engineers  
Attention: PM-E  
PO Box 2946  
Portland, Oregon 97208-2946

**SUBJECT: Detroit Dam and Lake Downstream Passage Project**

Dear Ms. Janes:

This letter serves as the City of Salem's public scoping comments for the construction of projects that allow for downstream juvenile fish passage and temperature control at Detroit Dam on the North Santiam River. The North Santiam River is the City of Salem's primary source of drinking water for over 192,000 customers and three wholesale customers: the City of Turner, Suburban East Salem Water District, and Orchard Heights Water Association. The City of Salem's drinking water treatment facility, Geren Island, is located 45 miles downstream from Detroit Dam. Construction of these two structures will likely cause significant impacts to the City's water treatment process, which may limit the ability to serve City of Salem water customers.

*Water Quality*

For more than 75 years, the North Santiam River has served as the primary drinking water source for the City of Salem. The high water quality of the North Santiam River allows the City to use slow sand filtration as part of the treatment process. Slow sand filtration is a natural filtration process, allowing naturally existing biota in the river to form a biological layer which then degrades and/or removes particulates and microbial contaminants in the water.

Under normal operating conditions, the slow sand filters are operated without pretreatment (coagulation, filtration, and sedimentation). Normal operating conditions require raw water turbidity of less than 10 Nephelometric Turbidity Units (NTU). The construction of this project will likely create significantly increased and sustained levels of turbidity that will be released to the North Santiam River downstream of the dams. This turbid water will dramatically affect the City's ability to utilize slow sand filtration under normal operations. The City can maximize operations during short, flashy turbid events, however, sustained turbidity will create significant operational challenges. The City is aware of increased and sustained turbidity caused in the McKenzie River during the construction of the temperature control structure at Cougar Dam in 2002, which created an average turbidity in the river of 106 NTU for four months.

EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Women, minorities, and disabled are encouraged to apply • ADA Accommodations will be provided upon request



Lower water elevations in Detroit Reservoir and Big Cliff Reservoir may lead to higher water temperatures in the North Santiam River. Any deviations from normal water quality parameters have the ability to impact the operations of the water treatment plant including but not limited to changes in filter performance and chemical dosage.

Higher water temperatures may also increase the occurrence and magnitude of algal blooms in Detroit Reservoir and the North Santiam River. Algal blooms can negatively impact the water treatment process by (1) clogging filters and inhibiting the City's ability to meet water demand, (2) production of algal toxins, and (3) taste and odor issues caused by Geosmin and 2-Methylisoborneol (MIB). The City maintains a robust Watershed Monitoring Program which is vital in identifying the presence of a bloom and sampling for identification/enumeration of the algae in addition to sampling for the presence of cyanotoxins.

Ongoing access to Detroit Reservoir during the summer months is imperative for the success of water quality monitoring program. The City accesses Detroit Reservoir at Mongold State Park. The City would be opposed to using Mongold State Park for a staging area during construction. Additionally, the City would request construction of a ramp extension to allow for continued access to allow for year-round access to the reservoir should the reservoir level drop below the low water boat ramp.

The City is also concerned about the possible release of contaminants in the silt at the bottom of the reservoir. During the construction period of the temperature control structure at Cougar Dam, it was reported that DDT bound to sediment was released downstream. The release of any contaminant from the sediment may impact the City's ability to meet regulatory requirements under the Safe Drinking Water Act.

#### *Water Quantity*

The Geren Island Water Treatment Facility is located on an island in the middle of the North Santiam River east of the City of Stayton. The facility's water intake, also known as the Middle Intake, is located on the north channel of the North Santiam River. In order for the treatment plant to function properly, river stage in the North Santiam River at the Middle Intake must be at least 2.3 feet. Flows of 700 cubic feet per second (cfs) at Mehama are needed to meet this critical river stage level. Any flow lower than that will drastically affect the City's ability to produce drinking water to meet Salem water customer demands.

The City is concerned that during the construction of these projects, sustained flow will be minimal in the North Santiam River and the channel elevation may even reach that critical threshold of 2.3 feet at the Middle Intake. If this occurs, the City will be unable to produce enough drinking water to meet the needs of its community.

Distribution of deposition downstream from Big Cliff Dam is also of concern. As previously mentioned, the City's drinking water intake is located on North Channel of the North Santiam River. Increased sediment transport through the dams and into the North Santiam River will eventually accumulate in the bed. The location and quantities of this additional sediment deposition may alter and/or restrict flows to the North Channel which can significantly challenge

operations at the treatment plant. Furthermore, instream work needed to dredge problematic deposition in the North Santiam River is bounded by permit constraints and triggered mitigation actions.

### *Economic Impacts*

There is the potential for significant economic impact from the construction of these projects. City of Salem water customers, both residential and commercial/industrial, depend on a reliable, high quality drinking water. Any negative changes to the quality and quantity of the North Santiam River affects the City's ability to meet customer's expectations. Furthermore, should production of water be limited, Salem water customers may face some level of water curtailment for potentially long periods of time. Restricting water uses creates significant hardships for Salem water customers, especially commercial and industrial customers.

Sustained water curtailment would lessen the City's utility revenues. Revenue projections are based on assumed water demand without curtailment considerations. Reduced revenues impede the City's ability to suitably maintain the utility infrastructure systems. These reductions could lead to increased utility rates for Salem's water customers.

### *Regulatory Impacts*

The City of Salem is a Designated Management Agency (DMA) under the U.S. Environmental Protection Agency (EPA) 2006 Willamette Basin Total Maximum Daily Load (TMDL) and the 2008 Molalla-Pudding TMDL, and is responsible for development and implementation of strategies to minimize and address the discharge of TMDL pollutants. TMDLs were established to define allowable pollutant load discharges for DMAs in order to meet water quality standards. The Willamette Basin TMDL addresses bacteria, mercury, pesticides, turbidity, and temperature; and the Molalla-Pudding TMDL addresses temperature, bacteria, pesticides (DDT, dieldrin, chlordane), nitrate, and iron/manganese/arsenic. Total suspended solids (TSS) serve as a surrogate for pesticides and is managed as a water quality pollutant.

The City is concerned about the possible release of contaminants in the silt at the bottom of the reservoir, and its impact to water quality downstream as it flows through the City and into the Willamette River. The City currently implements a 5-year TMDL plan to reduce all pollutants, and the release of any TSS from projects at Detroit Dam may hinder progress to remove this pollutant from the Willamette River.

### *Aesthetic Impacts*

The City of Salem has a total of 102 cfs in water rights for recreation and aesthetics for Mill Creek, a tributary of the Willamette River, which flows through the City of Salem. To meet this water right during the summer months, flow in Mill Creek is augmented by the North Santiam via flow control gates on Salem Ditch and Stayton Canal. Both gates are located in the Stayton area and both are managed and operated by the Santiam Water Control District. Additionally, the Santiam Water Control District can, and often does, divert water from Mill Creek to Pringle Creek to meet irrigation demand. Mill Creek and a portion of Pringle Creek are classified as



Essential Salmonid Habitat and any increases above background turbidity levels and higher stream temperatures could degrade this habitat. Furthermore, the City of Salem operates three fish ladders on these streams that were engineered based on the 102 cfs water right. Therefore, any reduction in flow lower than 102 cfs could affect anadromous fish passage through these structures.

Mill Creek and Pringle Creek are both important natural resources to the Salem community. Many homes and businesses are located streamside. Lower flows with increased turbidity in Mill and Pringle Creeks will likely have a negative effect on water quality by causing increased stream temperatures, algal blooms, and offensive odors. The City is also concerned about harmful algal blooms extending into the various waterbodies within the City parks, which are fed by North Santiam River source water.

*Alternative to Standard Construction Practices*

The City would like the U.S. Army Corps of Engineers to investigate alternative construction practices to minimize effects on the North Santiam River. Such practices may include sinking a pneumatic caisson to construct the foundation of the temperature control structure. This type of construction could reduce the time period of impact and minimize the reservoir drawdown level.

The City of Salem greatly appreciates the opportunity to provide comments on this proposed project. We hope our concerns are included in your project scope.

Sincerely,



Steven D. Powers  
City Manager

cc: Peter Fernandez, PE, Public Works Director  
Lacey Goeres, Water Quality Treatment Supervisor