

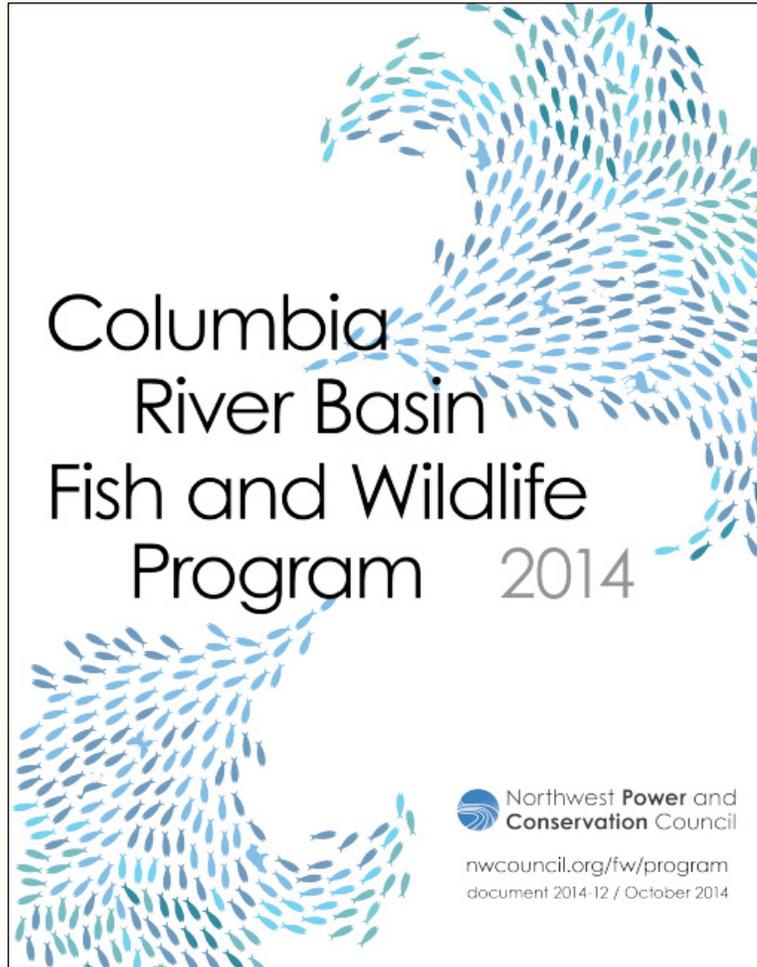
Staff briefing on the Implementation section of the 2014 Program (Part 6) and 2020 addendum (Part 2) of the Fish and Wildlife Program

**Fish and Wildlife division staff
April 2025**



**Northwest Power and
Conservation Council**

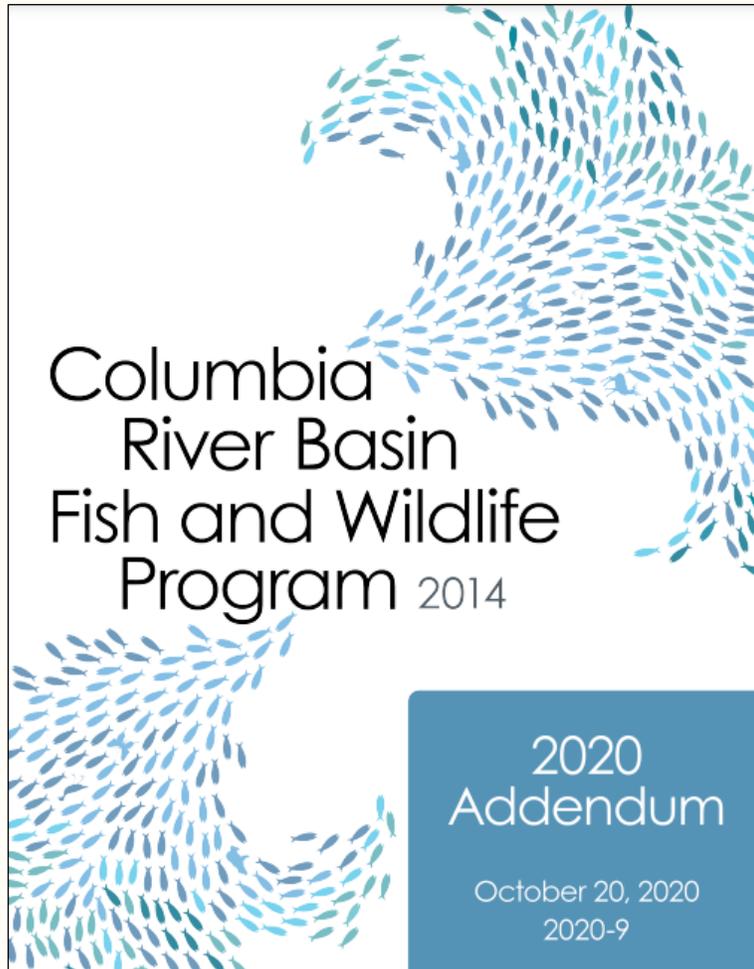
Progress in reviewing 2014/2020 Program content and organization



2014 Program:

- Part One: Overview
- Part Two: Introduction
- Part Three: Basinwide Vision, Scientific Foundation, Goals, Objectives, Strategies
- Part Four: Adaptive Management
- Part Five: Subbasin Plans
- Part Six: How the Program is implemented
 - I. Program measures
 - II. Investment strategy
 - III. Implementation procedures
- Part Seven: Appendices

Progress in reviewing 2014/2020 Program content and organization

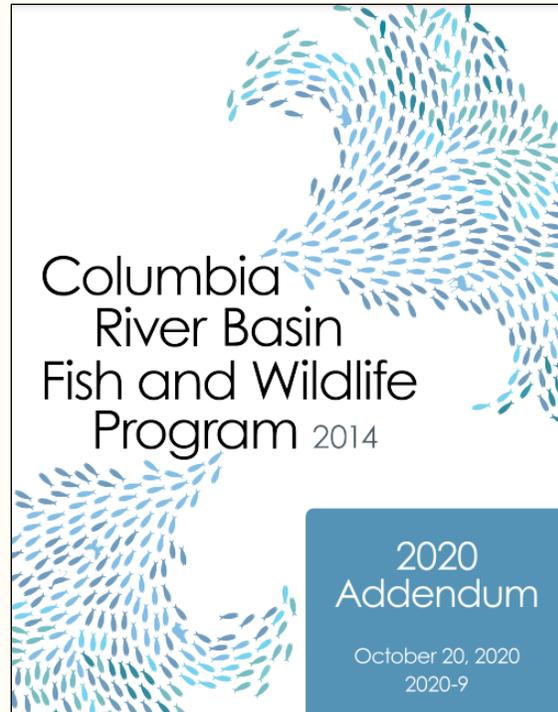
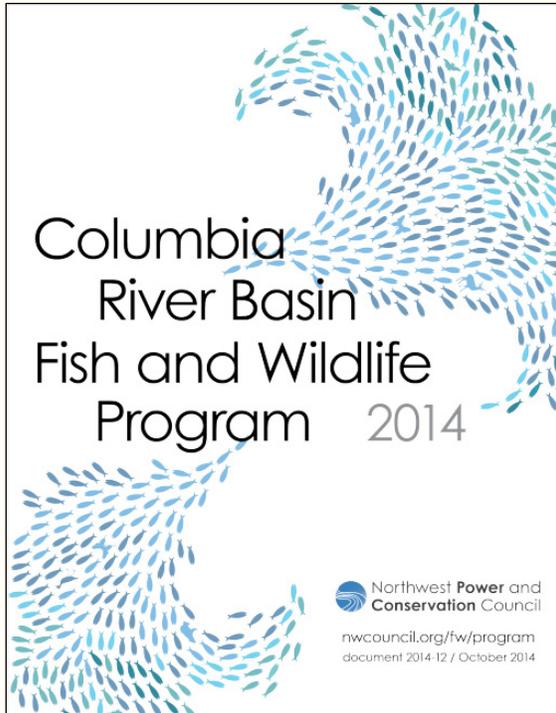


2020 Addendum:

- Part I. Program performance and adaptive management
 - Goals, objectives and performance indicators, organized by biological category
 - Assessing, monitoring and reporting

- Part II. Program Implementation
 - Near term priorities
 - Program Measures – Implementation Commitments
 - How the Program is implemented

Program Implementation (2014 – Part 6; 2020 – Part 2)



I. Program measures

- 2014 – page 110
- 2020 – page 43

II. Investment strategy

- 2014 – page 114
- 2020 – page 37

III. Implementation procedures

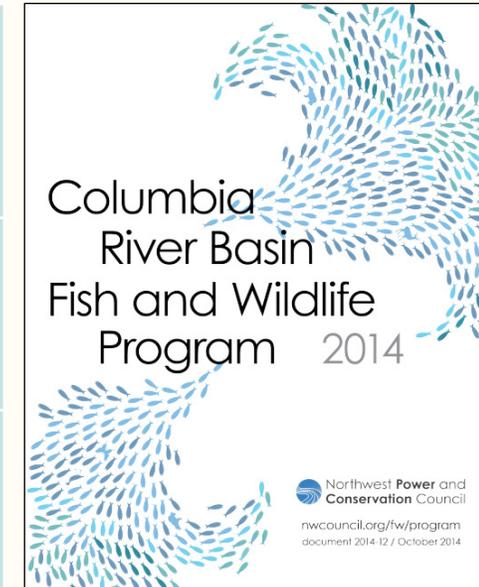
- 2014 – page 118
- 2020 – page 44

How the Program is implemented:

I. Program measures (2014/20)

Program measures – *the actions done to benefit fish and wildlife affected by the hydrosystem*

Basinwide	<ul style="list-style-type: none"> • Broad strategies that apply basin- or program-wide <ul style="list-style-type: none"> – Part 3. Strategies - Ecosystem Function, Artificial Production-related
Specific	<ul style="list-style-type: none"> • Various strategies organized by topic and species <ul style="list-style-type: none"> – Part 3. Strategies – Part 4. Subbasin Plans
Mainstem	<ul style="list-style-type: none"> • Mainstem Hydrosystem Flow and Passage Operations Strategy • Measures adopted from other documents: Biological Opinions, Columbia Basin Fish Accords
Subbasins	<ul style="list-style-type: none"> • Part 4. Subbasin Plans • Appendix O – specific measures for implementation in next 5-10 years • Measures adopted from other documents: Biological Opinions, Columbia Basin Fish Accords, Endangered Species Act, watershed recovery plans



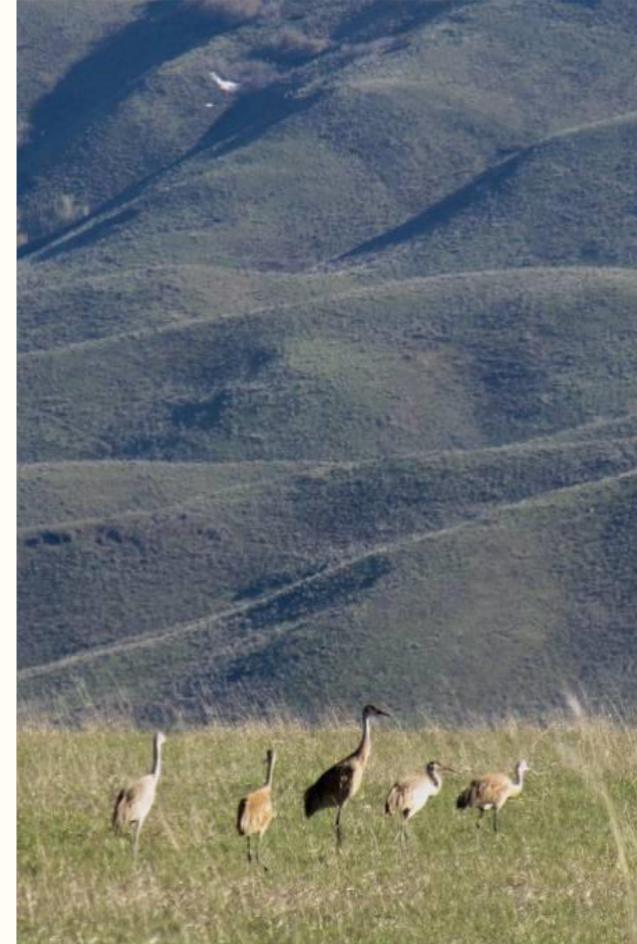
page 110

How the Program is implemented:

I. Program measures (2014/20)

“The program [and its measures] is not a vehicle to guarantee funding for a particular project, entity, or individual”

- Conditions under which measures will be implemented:
 - Measures are developed into projects that are reviewed per Section 4(h)(10)(D) – Independent science review, public review, Council recommendations to Bonneville.
 - Measures may be modified or discontinued if not performing or no longer identified as a priority.
 - Funding commitments made to certain measures must not come at the expense of sufficient funding for other program priorities.
 - Project implementers must regularly report results of implementation.
 - Action agencies, in collaboration with federal and state agencies and tribes, shall report annually to the Council and region on implementation of program measures.

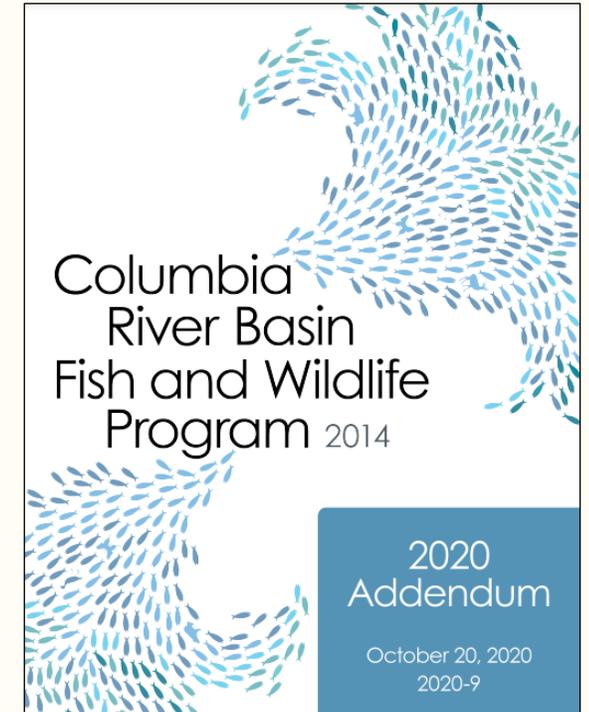


How the Program is implemented: I. Program measures (2014/20)

➤ Incorporation of implementation developments and commitments occurring after 2014, as Program measures:

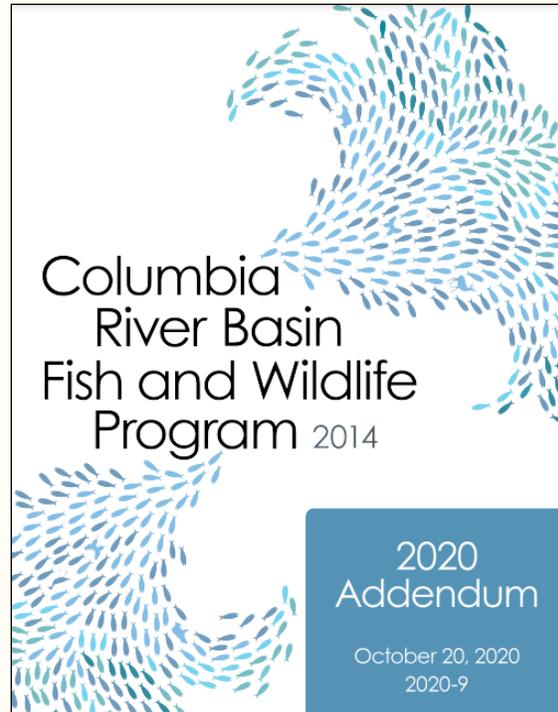
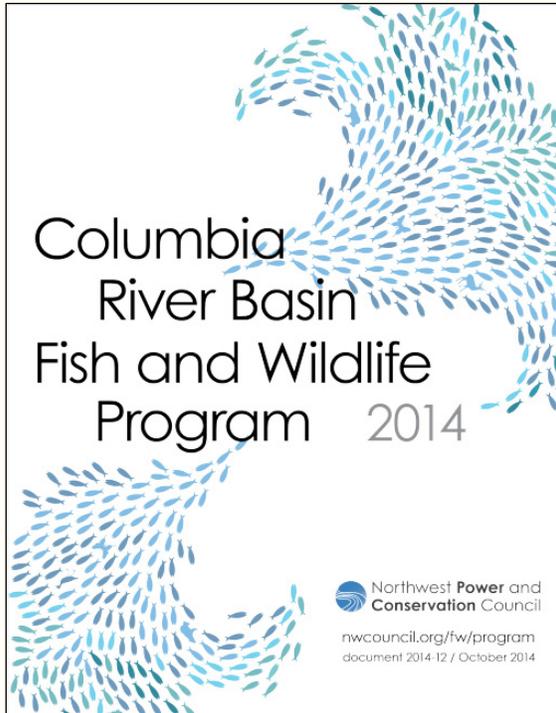
- 2018 Columbia Basin Fish Accord extensions
- 2019 Columbia River System Biological Opinion
- Kalispel Tribe Accord
- Mid-Columbia Public Utility District's FERC licenses, plans, Biological Opinions

October 2024 Council meeting:
[link to presentation](#)



page 43

Program Implementation (2014 – Part 6; 2020 – Part 2)



I. Program measures

- 2014 – page 110
- 2020 – page 43

II. Investment strategy

- **2014 – page 114**
- **2020 – page 37**

III. Implementation procedures

- 2014 – page 118
- 2020 – page 44

How the Program is implemented:

II. Investment strategy

- **Strategy, Rationale, Principles**
- **Emerging priorities**
- **Bonneville funding for emerging program priorities**

Text of strategy (2014 – page 114):

Assure funding to identified program priorities to maximize the biological response resulting from ratepayer and cost-shared investments.

- Hundreds of measures funded and implemented by Bonneville, US Army Corps of Engineers, Bureau of Reclamation, and Federal Energy Regulatory Commission.
- Bonneville implements through multi-year funding & implementation commitments, prioritizes ESA responsibilities, while funding elements of the Council's Program that address other, non-listed species affected by the hydrosystem.
- Principles and priorities to help guide funding and implementation.

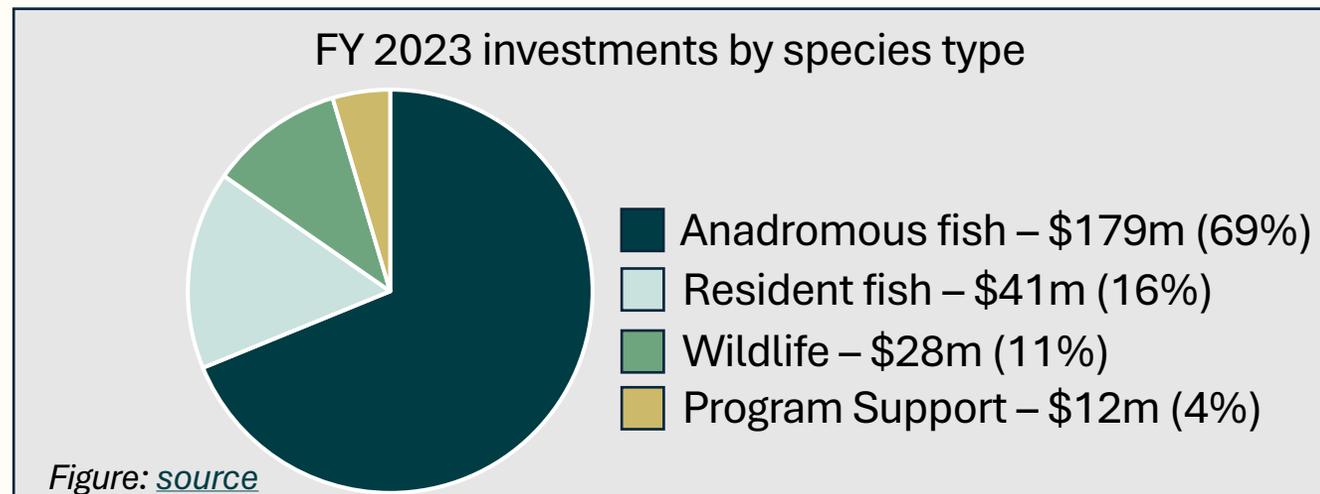
How the Program is implemented:

II. Investment strategy

Summary of Principles:

➤ Bonneville implementation funding:

- Include off-site mitigation investments in related spawning grounds & habitat
- Wildlife geographic emphasis in areas with greater unmitigated losses
- Funding adequacy:
 - Maintenance of existing investments (i.e., hatcheries, fish screens, land acquisitions)
 - Tagging (e.g., PIT, CWT, genetic, acoustic, radio)
 - Support fisheries objectives
- Allocation – 70% Anadromous fish : 15% Resident fish : 15% Wildlife



How the Program is implemented:

II. Investment strategy

Summary of Principles (cont.):

➤ Corps & Bureau:

- Priority work funded through the Columbia River Fish Mitigation Program should not go unfunded because of competing priorities between districts of the Corps (e.g., Columbia/Snake projects and Willamette projects).
- Meet Willamette and FCRPS Biological Opinion implementation and mitigation obligations.
- [Rather than Bonneville] Fund O&M budgets for hydro facility site-specific invasive species prevention and toxics reduction activities.

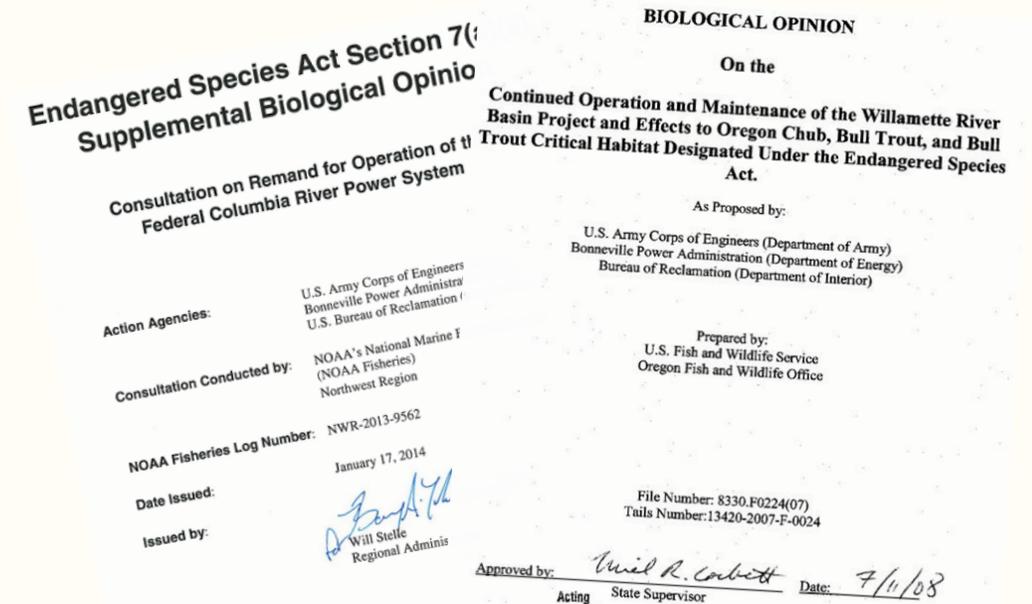
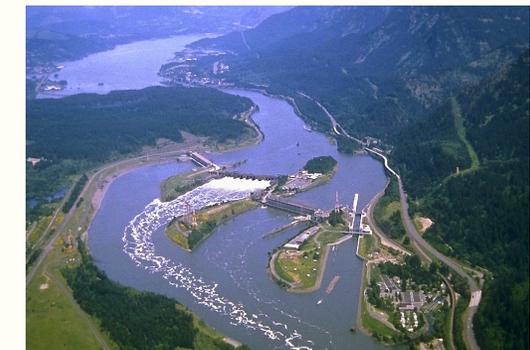


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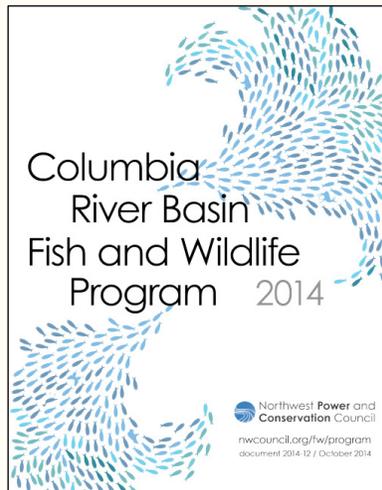
How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

➤ **2014 Program:**

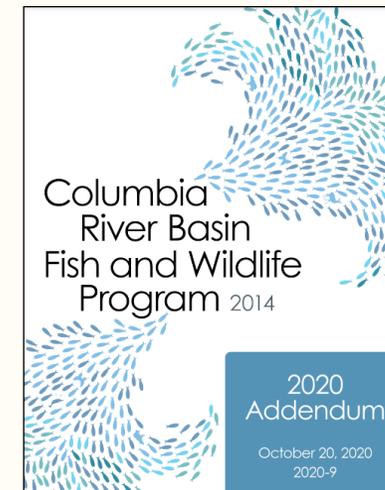
Guidance to Bonneville, other Federal agencies, and the region in general – new or expanded measures for implementation in the next five years.



page 114

➤ **2020 Addendum:**

Reinforce 2014 priorities and with specific directions for implementation that might not occur otherwise.



page 37

How the Program is implemented:

II. Investment strategy

Bonneville funding for emerging program priorities (2014):

- Identify savings within current Program
 - Savings should not compromise productive projects addressing Program needs.

- If savings are insufficient, Bonneville should consider increasing expenditures.
 - Bonneville should report to the Council how it plans to budget for implementation of the F&W Program.

How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

1. Funding adequacy to maintain existing assets (hatcheries, fish screens, land acquisitions)

- 2014, Appendix P: Maintenance of F&W Program investments

Text of sub-strategy:

The Council has determined adequate and dependable operation and maintenance support is needed to ensure ongoing proper functioning of past infrastructure investments by Bonneville and the action agencies intended to benefit fish and wildlife in the Columbia River Basin.



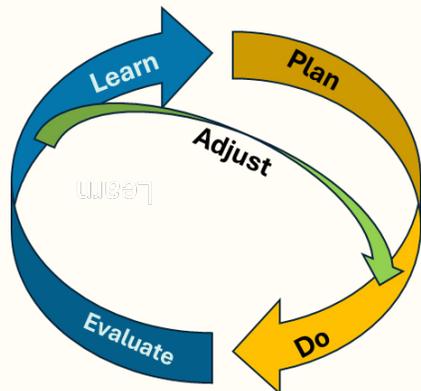
How the Program is implemented: II. Investment strategy

Emerging/near-term Program priorities:

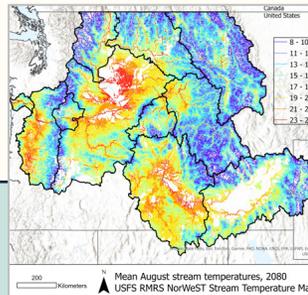
2. Adaptive management - assess effectiveness of ongoing projects, develop program objectives when appropriate, consider the effects of climate change

- 2014, Part 4. Adaptive Management strategy (p. 101)

March 2025 Council meeting:
[link to presentation](#)



- 2014, Part 3. Section 4: Strategies
 - Climate change (p. 57)



2020 addendum:

- Council & others - Consider implications of climate change in all aspects of the program.
- Council & others – consideration to establish science-policy forum to better understand implications of climate change and better inform regional power and fish and wildlife decisions.

How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

3. Preserve program effectiveness by supporting:

- Expanded management of predators
- Address Non-native & invasive species
- Map and determine hotspots for toxic contaminants

➤ 2014, Part 3. Section 4: Strategies

- Predator Management (p. 49) ←
- Non-native & invasive species (p. 46)
- Water Quality (p. 54)

February 2025 Council meeting:
[link to presentation](#)



2020 addendum:

Action agencies, NOAA, State F&W agencies, Columbia Basin Tribes - Adequately sustain & support efforts to reduce predation.

Emphasis:

- Northern Pike
- Pinnipeds
- Avian

How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

4. Investigate blocked area mitigation options through reintroduction, passage, and habitat improvement, and implement if warranted

- 2014, Part 3. Section 4: Strategies
 - Anadromous Fish Mitigation in Blocked Areas (p. 83)

February 2025 Council meeting:
[link to presentation](#)



- 2020 addendum:** Bonneville –
- Continue to make progress on phased approach to reintroduction
 - Significantly increase level of mitigation in area above Chief Joseph and Grand Coulee dams

How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

5. Implement additional sturgeon and lamprey measures (passage and research)

➤ 2014, Part 3. Section 4: Strategies

- Sturgeon (p. 90)
- Lamprey (p. 94)



2020 addendum:

U.S. Army Corps of Engineers & Bonneville - Continue progress assessing and addressing limiting factors.

Emphasis:

- Evaluate alternative flow regimes below McNary Dam
- Increase monitoring between McNary and Priest Rapids Dams and in the lower Snake River

February 2025 Council meeting:
[link to presentation](#)



Source

Source: CRITFC



Kootenai Tribal: 1988-064-00

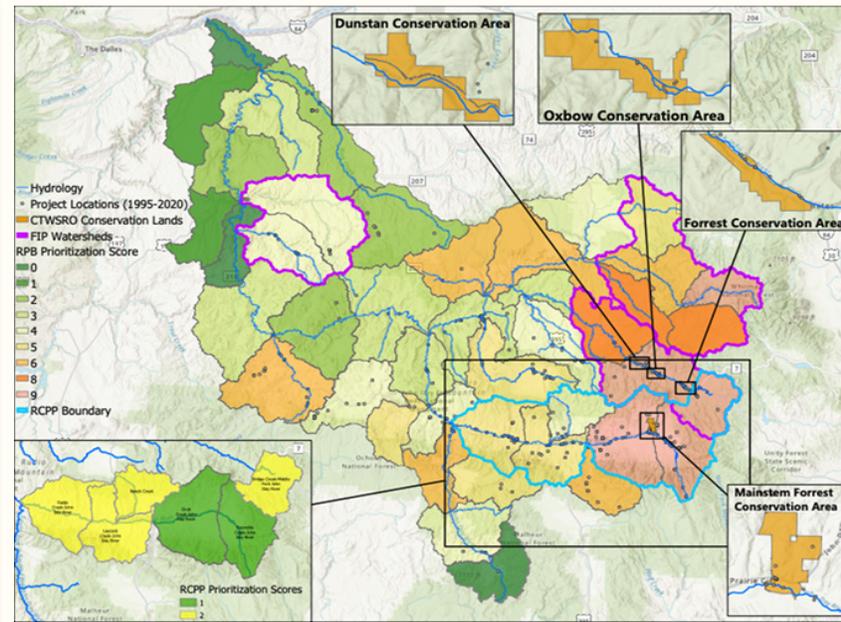
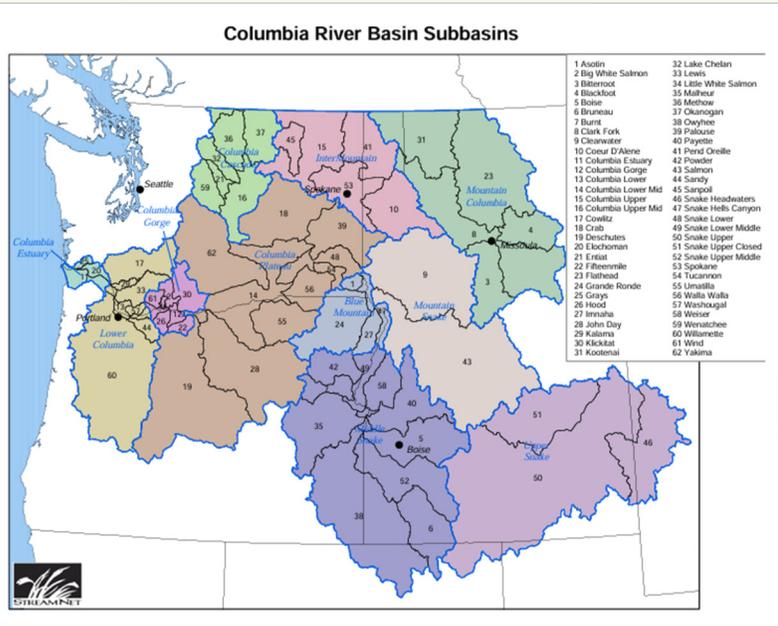
How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

6. Update the subbasin plans most in need of updates

➤ 2014, Part 5. Subbasin Plans (p. 108)



March 2025 Council meeting: [link to presentation](#)

How the Program is implemented: II. Investment strategy

Emerging/near-term Program priorities:

7. Continue efforts to improve floodplain habitats

- 2014, Part 3. Section 4: Strategies
 - Habitat (p. 41)

February 2025 Council meeting:
[link to presentation](#)



How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

➤ 2020 addendum: Estuary (p.40)

- U.S. Army Corps of Engineers – repeat research implemented in 2016/2017 that sampled juvenile out-migrating salmon at several sites in the Lower Columbia River and estuary to assess benefits of estuarine use by interior salmon stocks.



2014, Part 3. Section 4: Strategies

- Estuary (p. 68)

February 2025 Council meeting:
[link to presentation](#)

How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

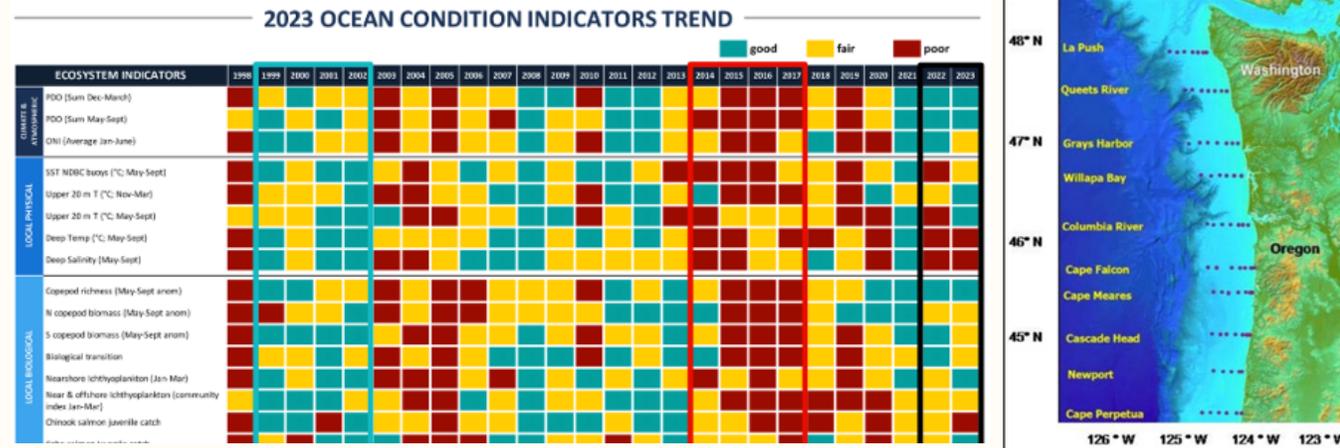
➤ 2020 addendum: Ocean (p.39)

- Bonneville – restore and sustain the funding and implementation of ocean research at the level recommended by the Council and supported by the ISRP.
- Restore funding to support critical monitoring and research actions, examples - ocean condition indicators, salmon survival, predator-prey relationships for salmon in the ocean.

2014, Part 3. Section 4: Strategies

- Plume and nearshore ocean (p. 70)

February 2025 Council meeting:
[link to presentation](#)



How the Program is implemented:

II. Investment strategy

Emerging/near-term Program priorities:

➤ 2020 addendum: Mainstem Hydrosystem Flow and Passage Operations (p.41)

- U.S. Army Corps of Engineers and Bureau of Reclamation – Implement the refinements in operations at Libby and Hungry Horse dams recommended by Montana FW&P and the Kootenai Tribe of Idaho.

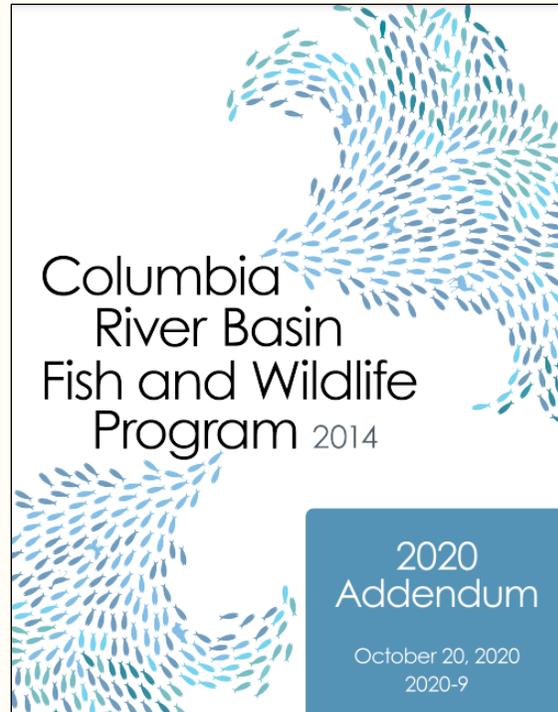
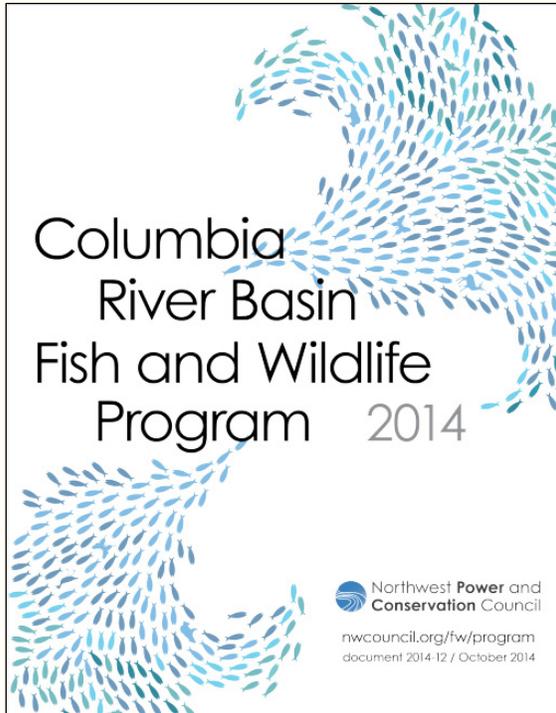


2014, Part 3. Section 4: Strategies

- Mainstem hydrosystem flow and passage operations (p. 60)

February 2025 Council meeting:
[link to presentation](#)

Program Implementation (2014 – Part 6; 2020 – Part 2)



I. Program measures

- 2014 – page 110
- 2020 – page 43

II. Investment strategy

- 2014 – page 114
- 2020 – page 37

III. Implementation procedures

- 2014 – page 118
- 2020 – page 44

How the Program is implemented:

III. Implementation procedures

A. Project review (2014 – page 119)

B. Program coordination (2014 – page 121)

C. Independent scientific and economic review (2014 – page 123)

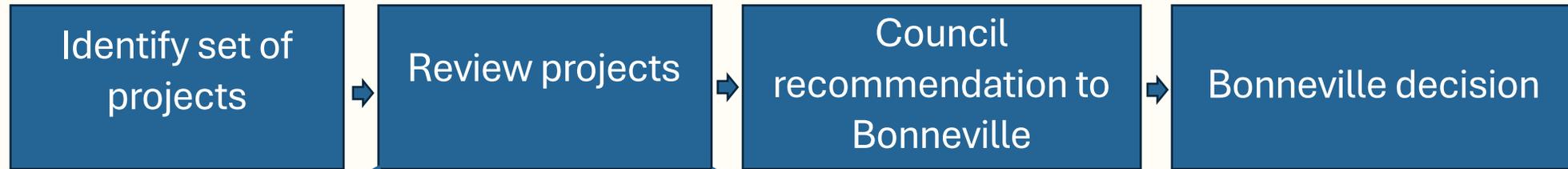
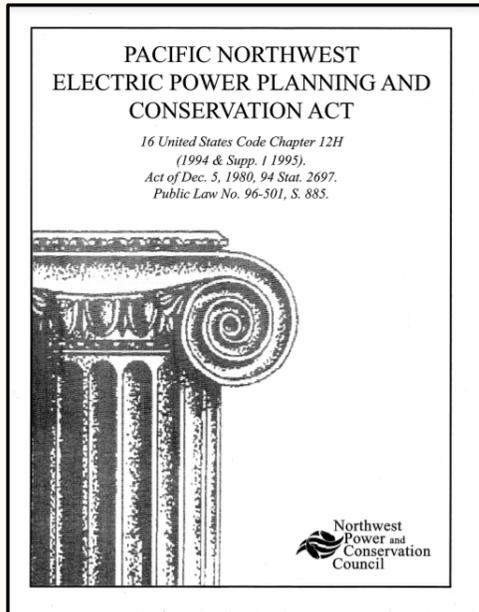
- This portion of the Program is implemented through collective work of over 300 projects, funded by ratepayers
- Program effectiveness and accountability requires tracking and reporting processes to ensure:
 - Scientific soundness of projects
 - Track Program results to guide future decision making
 - Coordinate with other projects and programs
 - Prioritize new work as funds become available



How the Program is implemented: III. Implementation procedures

A. Project review (2014 – page 119)

- 4(h)(10)(D) - 1996 amendment to NPA directed the Council, with the assistance of the Independent Scientific Review Panel (ISRP), to review projects proposed for funding by Bonneville

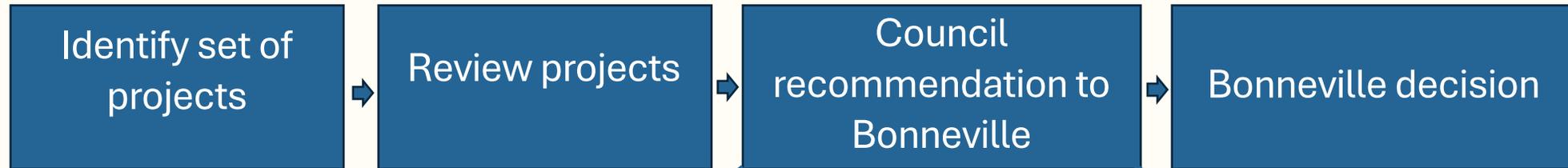
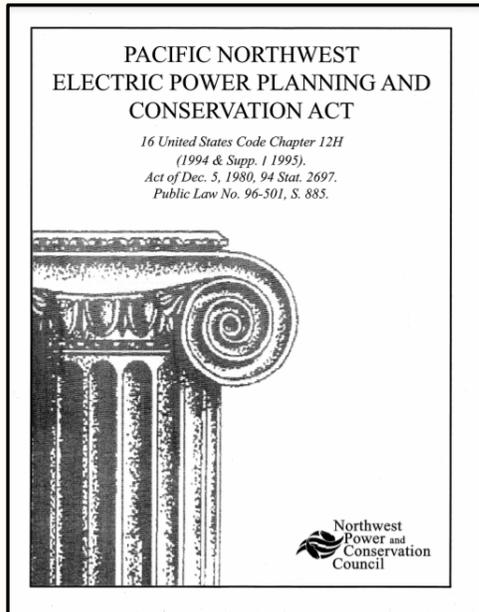


- ISRP review
 - Public review and comment on ISRP recommendations
 - Council review
- Criteria*
1. Sound scientific principles
 2. Benefit fish & wildlife
 3. Clearly defined objectives with provisions for monitoring & evaluation of results
 4. Consistent with the Program

How the Program is implemented: III. Implementation procedures

A. Project review (cont.)

- 4(h)(10)(D) - 1996 amendment to NPA directed the Council to oversee, with the assistance of the Independent Scientific Review Panel (ISRP) to review projects proposed for funding by Bonneville



- Considers:
 - ISRP recommendations and public comments
 - Impact of ocean conditions on fish & wildlife populations
- Determines whether projects employ cost-effective measures to achieve Program objectives

How the Program is implemented:

III. Implementation procedures

A. Project review (cont.)

1. Elements of project review

- Recognize project differences for review paths
- Streamline review process
- Work with Bonneville and sponsors on schedule
- Flexibility to incorporate ESA requirements and relevant agreements
- Use existing subregional organizations
- Properly scale monitoring and evaluation efforts per uncertainty matrix (and framework)



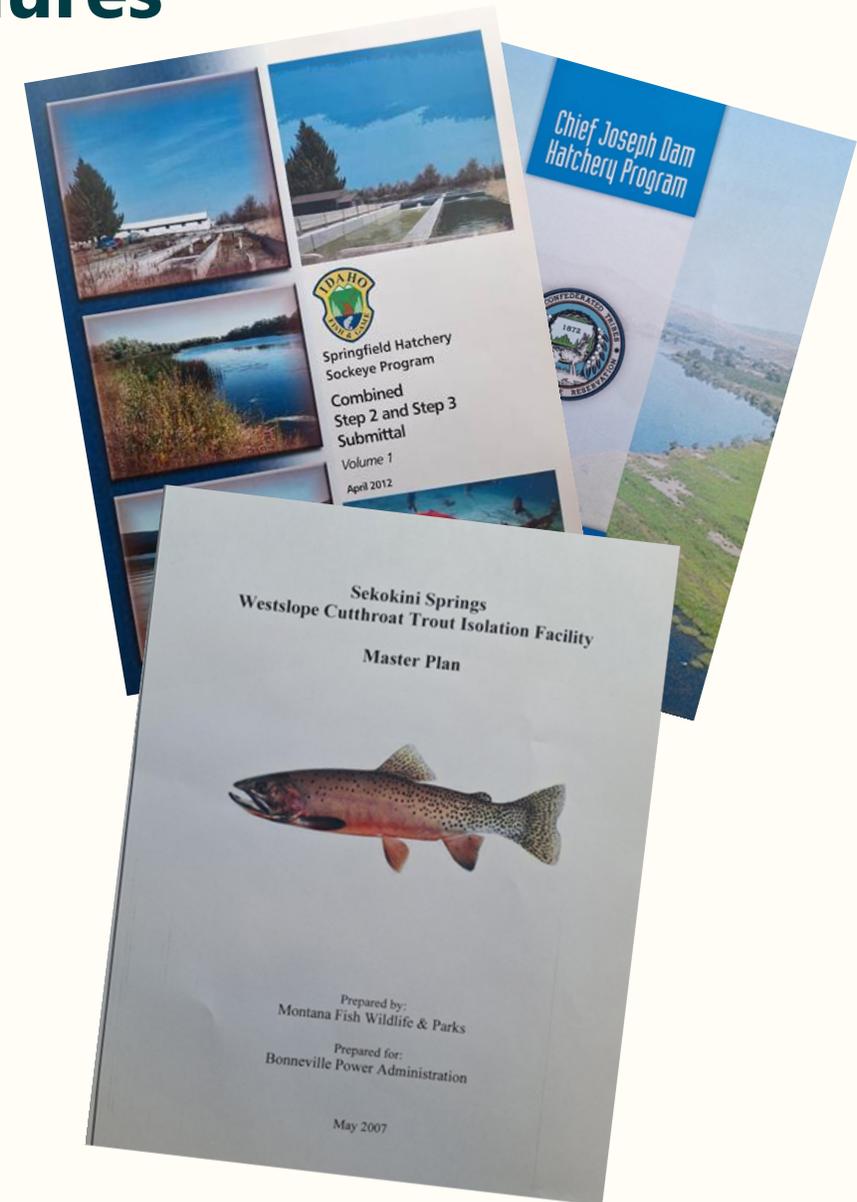
How the Program is implemented:

III. Implementation procedures

A. Project review (cont.)

2. Step review process

- Based on the initial ISRP review (97-1), the Council adopted a policy calling for new production initiatives to go through a basic development process that has three steps
 - Review by the ISRP and the Council at three different phases: (1) master or conceptual planning; (2) preliminary design; and (3) final design.
- Allows for review of scientific soundness, fish or wildlife benefits, environmental impacts, and design and fiscal considerations at appropriate stages.
- To increase efficiency, the Council may allow for a review that combines two or more of the steps in a single submission.



How the Program is implemented:

III. Implementation procedures

B. Program coordination (2014 – page 121)

- Continue to provide regional leadership and coordination
 - Bring appropriate expertise together, craft strategic approaches to address variety of F&W issues
- Convene interested parties on program implementation
 - Policy forums, workgroups, ongoing efforts with evaluation and assessments

1. Program coordination funding

- 4 States, 13 Tribes and 3 tribal coordination organizations (Regional Coordination Forum – RCF)
- Inform Council on policy, program performance evaluation, implementation at regional scale

2. Coordination with other regional programs

- Coordination with federal, state, tribal, Canadian, and volunteer fish and wildlife restoration programs
- Coordinate with organizations that track trends at the Northwest regional scale that that may influence program work and help guide decision-making



How the Program is implemented:

III. Implementation procedures

C. Independent scientific and economic review (2014 – page 123)

- **The Independent Scientific Review Panel (ISRP)** – The 11-member ISRP reviews individual projects in the context of the program and makes recommendations on matters related to those projects
- **The Independent Scientific Advisory Board (ISAB)** – The 11-member ISAB was established by the Council and NOAA Fisheries, and its administration is overseen by the Council, NOAA Fisheries, and the Columbia River Indian tribes.
- **The Independent Economic Analysis Board (IEAB)** – The Independent Economic Advisory Board advises the Council on the economics of issues within the Council’s statutory responsibilities. *(Inactive since 2016)*

How the Program is implemented:

III. Implementation procedures

➤ How the Program is Implemented (2020 – page 44)

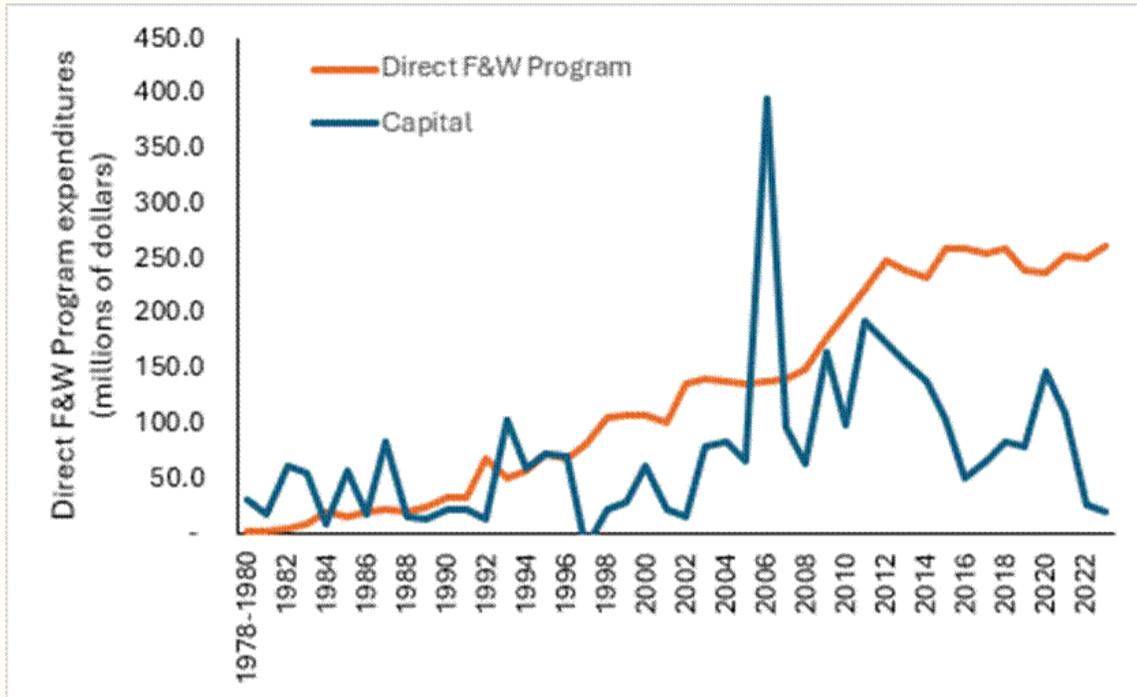
Bonneville – Implement the program through projects and manage the budget with due consideration to the following:

- Implement emerging priorities
- Protect productive work:
 - During budgetary processes
 - Even if using stable project budgets to help control the growth of program expenditures
- Share the cost management efforts as equitably as possible over the entire program
- Develop an improved public process to find cost savings in the existing budget
- Plan future implementation of the Fish and Wildlife Program

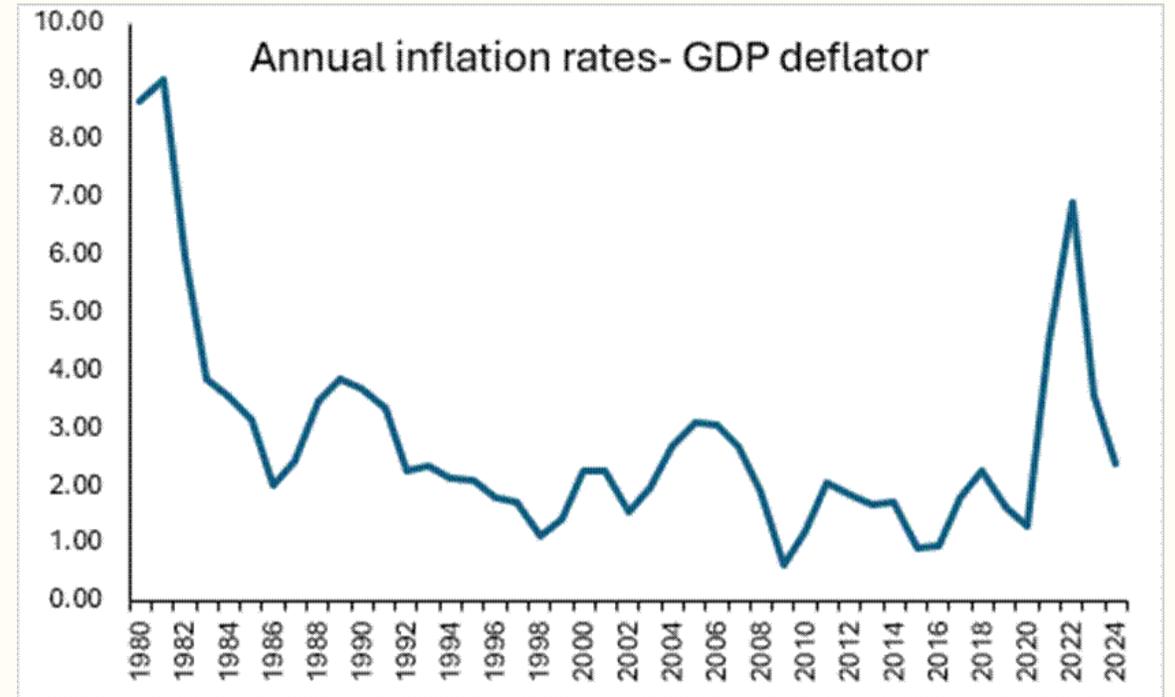


How the Program is implemented: III. Implementation procedures

Context for Program expenditures over time



Data: [source](#)



Data: [source](#)

Discussion and Key Issues

Implementation procedures: Discussion topics

➤ **Transparency and accountability**

- Large number of projects, across a large geographic area, all types of work.
- Can be challenging to track project-level changes through time – has science review and consistency implications.
- Can be challenging to understand linkage of projects to individual Program measures.
- Periodically mapping each project's purpose, emphasis and detailed emphasis provides an opportunity to identify and reflect the work.

Implementation procedures: Discussion topics (cont.)

➤ Managing implementation

- Bonneville uses different tools for implementing the program (Accords, agreements, commitments), all with different characteristics or rules.
- Projects sponsors do not all have the same flexibility in project implementation (e.g., multi-year funding contracts and agreements).
- Staff has been working to develop new ways of coordinating with Bonneville to track and understand their project implementation decisions, changes and opportunities.

Implementation procedures: Discussion topics (cont.)

➤ Review efficiencies

- Project sponsors want to see project reviews happen more efficiently and staff are working to implement project review so that it is a more efficient and value-added exercise.

➤ Program Coordination

- Inconsistent participation and priorities in regional coordination efforts.



Staff briefing on Appendices (Part 7) of the 2014 Fish and Wildlife Program

Fish and Wildlife division and legal staff



**Northwest Power and
Conservation Council**

Appendices – Part 7, Page 126

- A combination of traditional appendices backing up substantive text in the program
- 2014 was a new attempt to move some substantive measures and objectives to the appendices
- This approach created challenges to understanding their significance
- Quick review of each

 ap·pen·dix
/əˈpendiks/

noun

1. **ANATOMY**
a tube-shaped sac attached to and opening into the lower end of the large intestine in humans and some other mammals.
"I'm merely standing in while Stella is having her appendix out"
2. a section or table of additional matter at the end of a book or document.
"a list of such activities was published as an **appendix to** the report"

Similar: [supplement](#) [addendum](#) [postscript](#) [codicil](#) [addition](#) [extension](#) 

Part 7: Appendices

A. Glossary (page 128)

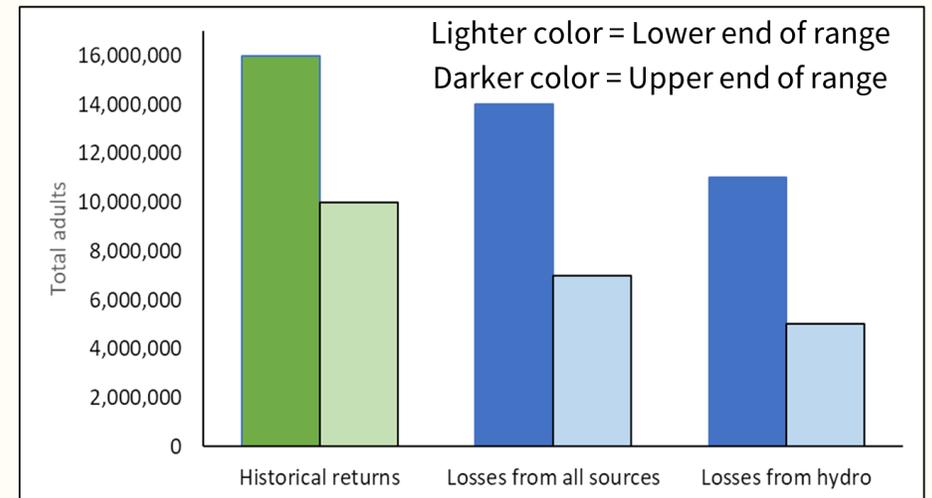
- Makes clear in the program what we mean when we use certain terms.

B. Estimates of hydropower-related losses (page 144)

- Originally Appendices D and E to the 1987 program. The detailed info and Council conclusions on the anadromous loss assessments, underlying the goals etc. of the program. Have remained an appendix to the program ever since. Incorporated by link reference.
- Covered in [December 2024](#) presentation.
- Provides links to information on [Salmon and Steelhead losses](#) and [estimates of hydropower-related losses](#) from the 1987 Program.

Natural-origin fish: Populations of fish that have completed their entire life cycle in the natural environment and may be the progeny of wild, hatchery or mixed parentage

Wild fish: Fish that have maintained successful natural reproduction with little or no hatchery influence



Part 7: Appendices

C.1. Wildlife mitigation priorities (page 145): used to be a *substantive* part of the Wildlife chapter (e.g., 1995 Program). Based in consideration of losses.

C.2. Mitigation for wildlife losses due to hydropower construction and inundation: The C&I losses in the program text in the past (1995).

C. 3. Mitigation considerations in dam licensing decisions: Substantive measure about consideration of wildlife losses and mitigation in FERC licensing.

Details reviewed at the [September 2024](#) and [February 2025](#) meetings



Part 7: Appendices

D. Program goals and objectives (page 153)

- Provides the detail previous goals and objectives have been reorganized, reformatted and supplemented to evaluate program performance.
- Covered in **December 2024**. This appendix has been subsumed by the 2020 Addendum, Part 1, section A.

E. Council high-level indicators (page 162)

- Details a reporting tool that was intended to be used to report to Congress and the region. This tool has been replaced by **Program Tracker**.

Performance indicators by Program goal

				
ANADROMOUS SALMON AND STEELHEAD	OTHER NATIVE AQUATIC SPECIES	WILDLIFE	ECOLOGY/HABITAT	OUTREACH, COORDINATION, ASSESSMENT
Mainstem hydrosystem flow and passage	White sturgeon	Wildlife mitigation	Habitat	Public engagement
Fish propagation and hatchery	Pacific lamprey		Water quality	Protected areas and hydroelectric development/licensing
Wild fish	Eulachon		Mainstem hydrosystem flow and passage	Resident fish
Anadromous fish in blocked	Resident fish		Predator management	
	Predator management			



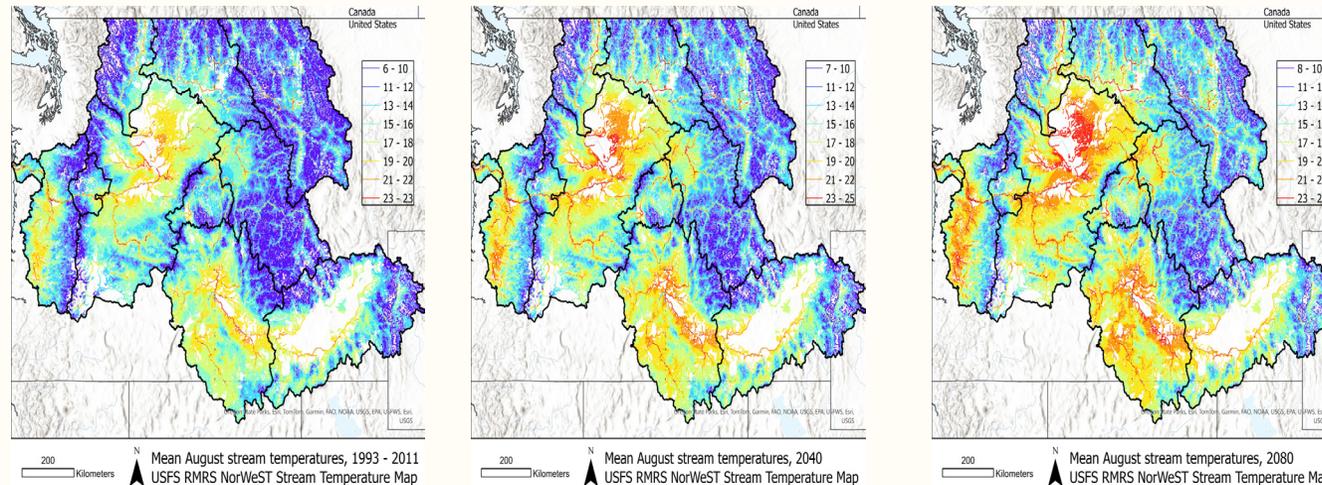
Part 7: Appendices

F. Future hydropower electric development and licensing, and protected areas (page 163)

- Substantive measures for protected areas and licensing conditions, to go along with summary of substantive measures in text at pages 52-53. Referenced and linked at those pages.
- Reviewed during the **November 2024** and **February 2025** meetings.

G. Climate change impacts in the Columbia River Basin (page 172)

- Provides information associated with impacts of climate change to the Columbia Basin.
- Reviewed during the **November 2024** and **February 2025** meetings.



USFS RMRS NorWeST stream temperature map

Part 7: Appendices

H. Fish Passage Center (page 175)

- Describes the establishment of a board represented by federal, state, tribal agencies to ensure the project function is consistent with the program. Annual reviews and coordination with the ISAB. Project #1994-033-00, Fish Passage Center.

I. Alternative operations at Grand Coulee (page 176)

- Alternative operations at GC recommended by Spokane Tribe. Referenced and partially repeated in main text at pg. 64. Used to be in main text. Never implemented.
- Discussed at the [January 2025](#) meeting. Provide the considerations for the operations at Grand Coulee from July through December.

J. Wildlife crediting forum (page 177)

- Explanation and conclusions on wildlife crediting forum.
- Provides background and the agreed upon protocols and standards of the forum. Described in [November 2024](#) meeting.

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K. Resident fish mitigation settlements (page 178)

- Substantive provision on resident fish settlements, patterned on wildlife settlements. Referenced and linked in resident fish section on pages 87-88.
- Reviewed at the [February 2025](#) meeting. Outlines the development of resident fish habitat loss assessments, and once completed, encouraging Bonneville to negotiate settlement agreements.

L. Reporting (page 180)

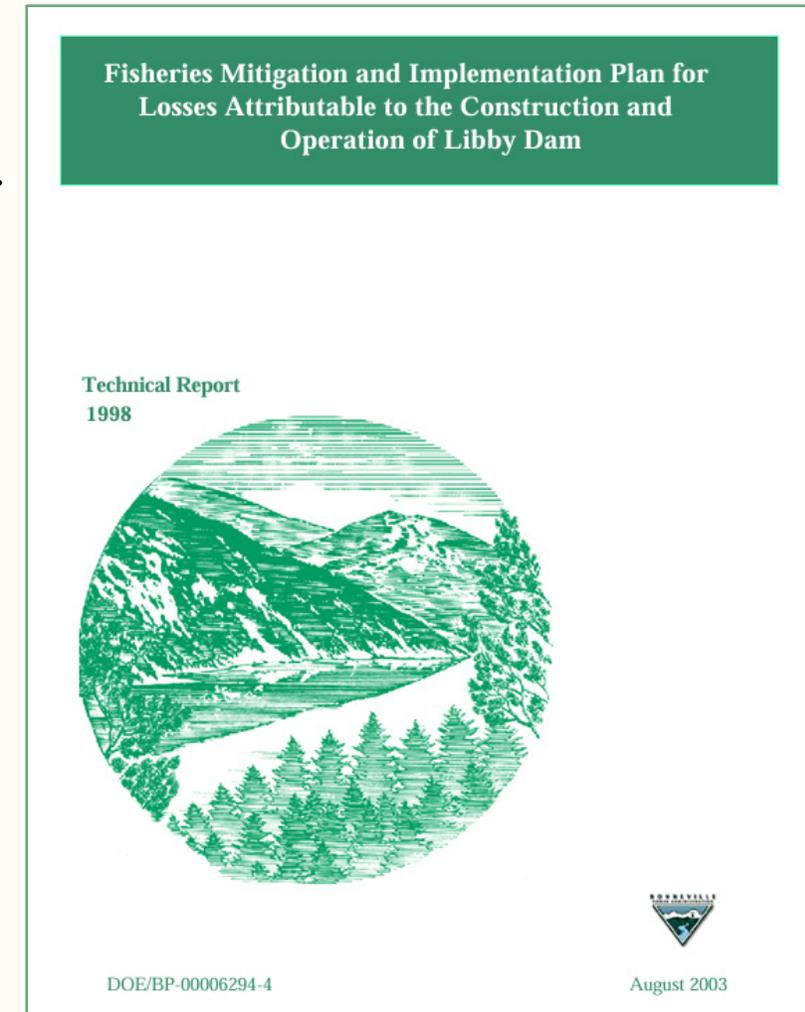
- List of reports. Provides an overview of data sharing, information exchanges and reports that are important to the program, including science panel reviews and reports.
- Presented in [March 2025](#).

M. List of subbasin plans and adoption dates (page 183)

- Program incorporates by reference; appendix includes the list and dates.
- Reviewed at the [March 2025](#) meeting.

N. Species (page 185)

- Lists the 275 focal species as identified by local watershed groups in the subbasin plans.



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O. Subbasin and basinwide measures (page 191)

- Since 2009 program. Raw implementation material.
- Provides additional detail to the [March 2025](#) presentation. Contains the recommendations received of specific measures for specific subbasins.

Fish and Wildlife Program measures

The Council received recommendations containing extensive lists of specific action measures for implementation in the next 5-10 years in these tributary subbasins, specific mainstem reaches, and the estuary. These specific measures cover an extensive array of habitat, production, and monitoring, evaluation and research activities. [Part Six, section I](#) includes conditions under which all such measures will be implemented.

1. Subbasin measures

Columbia Estuary Subbasin

Oregon Department of Fish and Wildlife [2009](#) and [2014](#)

Washington Department of Fish and Wildlife [2009](#) and [2014](#)

FCRPS Biological Opinion [2014](#) implementation plan

Lower Columbia Fish Recovery Board [2009](#) and [Plan, 2014](#)

Lower Columbia River Estuary Partnership [2009](#) and [2014](#)

Columbia Basin Fish and Wildlife Authority [2009a](#), [2009b](#)

Part 7: Appendices

- P. Maintenance of Fish and Wildlife Program Investments (page 199)**
- Program substance.
 - Described at today's meeting. Details the need for an adequate and dependable operation and maintenance support for the program's past investments and other federal related facilities.
- Q. Administration and procedures of the Independent Scientific Review Panel, the Scientific Peer Review groups, and the Independent Scientific Advisory Board (page 201)**
- Program implementation substance – details of the panels.
 - Reviewed at today's meeting Provides detail on the ISRP and ISAB procedures, membership and appointment procedures.
- R. Assuring the Pacific Northwest an adequate, efficient, economical and reliable power supply (page 204)**
- Standard appendix. Explains conclusion in main text, at pages 18-19.
 - Discussed at the [March 2024](#) meeting.
- S. Responses to recommendations and comments, including findings on recommendations not adopted into the 2014 Fish and Wildlife Program (page 219)**
- Required by law to be part of the program.
 - Described at the [October 2024](#) meeting.

Questions?