

Columbia Basin Collaborative
Hydropower/Blocked Areas Needs to Actions Tier 1
Draft as of 5/31/23

Hydropower Resources and Gaps

Columbia Basin needs:

- *Need for federal and non-federal dam operators to shift management objectives to target Columbia Basin Partnership Task Force goals*
- *Need for more accurate data collection and monitoring*
 - *recommendation to modernize and fully fund detection work*
- *Need to understand the ways (methods, infrastructure) to improve downstream passage for juveniles and steelhead kelts and overshoots.*
- *Need for urgency to achieve success in meeting fish goals*
- *Need for fish & wildlife managers to have more of a say in dam operations affecting fish*
- *Need to fund infrastructure to support services currently provided by LSR dams*

Internal work group needs:

- Internal work group need to understand baseline conditions necessary to be able to meet CBPTF abundance goals and NPCC survival goals.
- Internal work group need to understand possible operational changes and impacts to specific projects and across systems.
- What's the current conditions and cost of doing nothing?

Blocked Areas Resources and Gaps

Columbia Basin needs:

- *Need for funding for UCUT Phase 2 Implementation Plan.*
- *Need to discuss developing a regional effort for the blocked areas above the Hells Canyon Complex.*
- *Need to increase resources for BPA Fish/Wildlife Mitigation Program*
- Need to understand the geographic areas (tributaries) to focus on understanding the feasibility of achieving self-sustaining populations in some blocked areas.
- Need to understand how to provide effective downstream passage for juvenile fish at high-head dams.
- Need to understand for full inventory of blockages.

Internal work group needs:

- Internal work group need to understand the impacts of the CR Treaty modernization
- Internal work group need to understand the downstream fisheries impacts on upstream/blocked areas
- **Internal work group need to understand the legal/policy differences on blocked areas between states, basins, etc.**

Hydropower Mainstem Tier 1 Needs

Columbia Basin Needs

Need: federal and non-federal dam operators to shift management to quantifiable metrics and timeline to target CBPTF goals

Actions:

- Fill data gaps: what are the current objectives for federal and non-federal dam operators and why aren't current agreements providing adequate protection for salmon? Understanding role of dam operations in recovery relative to other impacts – Ritchie Graves, Keely Murdoch
 - Need better life cycle models to demonstrate hydro piece of the salmon lifecycle to help educate stakeholders
 - Measure SARs and use it as a metric as a piece of information for management
 - Modeling and simulation of dam operation changes for navigators through the US Army Corps research and development center in Mississippi
- Meeting with stakeholders (electricity, flood control, irrigators, navigation, work group participants, owners of the barriers) to understand what would people like to see with salmon, educate people, and impacts on stakeholders to build consensus around ideas for operational changes – David Bain, Jens Rasmussen, Tom Iverson, Leslie Druffel
- Need to create institutional system to achieve goals in the long term – Glen Spain, Ritchie Graves
 - Understand the pathway for federal operators to shift objectives from avoiding jeopardy to the CBP goals
 - Insert language through the Water Resource Development Act to acknowledge the CBP goals

Existing recommendations:

Need to plan for more than ESA requirements to achieve rebuilding. Current hydro operations are based on avoiding jeopardy, need to operate hydro system to achieve rebuilding - much higher bar (NOAA Rebuilding Paper).

Need: for more accurate data collection and monitoring

Actions:

- Modernize and fully fund detection work

Existing recommendations:

- Focus on reach survival (COE SRWG revised monitoring plan for CRS)
- Increased funding for CSS and SMP FY2023 (FW manager request for CSS and SMP FY 2023)
- 6 prioritized actions addressing this issue (Memo 41-22 from the FPC)
 - Increase PIT tag detection capabilities at and below Bonneville Dam
 - Install PIT tag detection at spillway surface passage structures at McNary Dam
 - Install PIT tag detection at spillway surface passage structures at John Day Dam.
 - Increase marking and mark groups in the Upper Columbia to evaluate passage of these stocks through Upper Columbia River and in the McNary to Bonneville Reach.
 - Install PIT tag detection capabilities at spillway passage structures dams at the Upper Columbia projects
 - Increase PIT tagging levels of the Snake River Fall Chinook
- Need for sufficient sample size (NWFSC Outmigration Memo)

Need: understand the ways (methods, infrastructure) to improve downstream passage for juveniles and steelhead kelts and overshoots.

Drafters: Keely Murdoch, Ritchie Graves, Jay Hesse, WDFW reps,

Actions:

- **When we have evidence of fish migrations, all projects should have safe downstream for overshoot steelhead (spill, bypass, surface passage, ice and trash sluiceways, etc.)**
- When we have evidence of fish migrations, improve downstream surface passage across all times of the year for all species, accounting for realities of downtimes and maintenance
- Focus on what information we have and what information do we need to better understand this issue? Evaluating 12 hour spill in the Snake for fish passage – is it sufficient or is more needed?
 - Where we have data: Upper Columbia, Snake River, Mainstem Columbia River

Existing recommendations:

Need: urgency to achieve success in meeting fish goals

Actions:

Shifting operations goals:

- Change context of evaluating hydropower operations to ensure that operations support rebuilding fish populations/net ecological gain
- Set a deadline for achieving fish goals.

Policy pieces:

- Examine regulatory and bureaucratic hurdles
 - and find a way over/around those and convince policy level folks of the urgency
- Authorities and funding that federal agencies and state agencies have to improve hydropower projects and getting broad-national level support to change this.

Increase funding/capacity: Leslie

- Need to address the workforce issues to accomplish shovel-ready projects to advance fish goals – could look at increased funding and capacity.
- Advocate for operations and maintenance funding to support operations that are already doing without new operating agreement.
- Fully fund existing authorities – for fish passage system at mainstem dams. Critical Fish Passage List from BiOp.
- Aggressively implement predator reduction – need for more funding to address it.

Existing recommendations: NOAA rebuilding paper echoes urgency.

Need: for fish & wildlife managers to have more of a say in dam operations affecting fish

Actions:

Existing recommendations: Currently BPA and PUDs are making implementation decisions that affect mitigation and restoration projects that are contrary to the recommendations of the F&W managers. Once funding levels are set, F&W managers should determine implementation process (Inslee/Murray report). However, one member doesn't necessarily agree with this approach since many managers have conflicts of interest where agencies could be seen as advocating for management dollars being directed to their programmatic interests.

Need: fund infrastructure to support services currently provided by LSR dams

Actions:

Existing recommendations: Need to begin replacing LSRD services and make dams obsolete in order to remove political barriers to their removal, and there are new federal funding opportunities that could help (Inslee/Murray report and NOAA Rebuilding Paper).

Internal Work Group Needs

Need: to understand baseline conditions necessary to be able to meet CBPTF abundance goals and NPCC survival goals.

Actions:

Existing Recommendations: 2-6% SARS (CSS Annual Reports from 2010 -2022)

Need: to understand possible operational changes and impacts to specific projects and across systems.

Actions:

Existing Recommendations: TMT and FPOM discuss often; spill 125% TDG and breach lower 4 SR dams (CSS Annual Reports) Recommendation to introduce resources that outline potential impacts from operational changes (TMT and FPOM).

Need: What are the current conditions and cost of doing nothing?

Actions:

Blocked Areas Tier 1

Columbia Basin Needs:

Need: for funding for UCUT Phase 2 Implementation Plan.

Actions:

- Explore funding through the NPCC Fish and Wildlife Program – Conor Giorgi, Casey Baldwin
- Explore funding through the Columbia River Treaty – Conor Giorgi, Casey Baldwin, Claire McGrath
- Explore funding through federal funding and congressional authorizations (a geographic specific Act) and NMFS grants – Conor Giorgi, Casey Baldwin
- Explore funding through State of Washington – Conor Giorgi, Casey Baldwin, Michael Garrity, Megan Kernan

Existing Recommendations:

Need: to discuss developing a regional effort for the blocked areas above the Hells Canyon Complex.

Actions:

Volunteers: Ritchie Graves, Scott Hauser, Dennis Daw, Jay Hesse, Haley Ohms, Norman Semanko, Paul Arrington, John Simpson

- Educational effort for how anadromous fish would impact user groups
- Examining existing fish management plans:
 - Build upon USRTF management plan
 - State of Oregon call for fish passage as part of 401 certification
 - Need to consider the tribes' fish passage considerations
- Bring USRTF, Nez Perce, Oregon, Idaho, Power companies, Bureau of Reclamation together to coordinate, develop and fund something that will be a durable and lasting effort; we'll need to include adaptive management and prioritization to move this forward. Explore passage and environmental issues to address in addition to exploring reintroduction
- Need to consider the FERC license process as part of this issue

Existing Recommendations: Recommendation to consider anadromous and resident fish management programs in the Snake River and significant tributaries to re-establish anadromous fisheries. (USRT Hells Canyon Fisheries Management Plan).

Need: increase funding to support addressing Blocked Areas impacts

Actions:

- Send to the SIWG/I/RG to investigate ways to improve funding issues broadly
- Data gap: Where has federal funding gone to work on anadromous fish in the blocked areas in the basin? Where have efforts been meeting goals?
- Explore increasing funding from BPA
- Explore funding through the NPCC Fish and Wildlife Program
- Explore funding through the Columbia River Treaty – Claire McGrath,
- Explore funding through federal funding and congressional authorizations (a geographic specific Act) and NMFS grants
- Explore funding through affected States – Megan Kernan,

Existing Recommendations: Identified future spending levels - see public comment on this process for recommendations from others (BPA BP-24 IPR Process)

Need: to understand the geographic areas (tributaries) to focus on understanding the feasibility and potential of fish reintroduction in some blocked areas – ensuring that people understand the extent of potential future reliance on hatcheries.

Actions:

- Find dedicated funding and fish (donor stock assessment and life cycle modeling) to address this need
- Lessons learned from Portland Power and Light in their efforts in the Blocked Areas
 - Lewis River
 - Cowlitz – Bryce Glaser, Thomas Buerhens
 - Other dams in Puget Sound?

Existing Recommendations: 1) Gather information and perform studies to investigate reintroduction above GCD (2014 NPCC FW Program and 2020 Update); 2) Lifecycle modeling in Upper Columbia (P2IP and CRSRI); Recommendation to review findings of studies, completed and ongoing, with the goal of understanding feasibility of self-sustaining populations in blocked areas. (P2IP, CRSRI)

Need: understand how to provide effective downstream passage for juvenile fish at blocked areas.
Actions:

Existing Recommendations: Recommend reviewing research assessing efficacy of existing downstream passage measures at high-head dams. (P2IP, CRSRI)

Internal work group needs:

Need: understand the impacts of the CR Treaty modernization

Actions:

Existing Recommendations: CRITFC released documents that describe ecosystem function in context of modernizing the Columbia River Treaty

Need: understand the downstream fisheries impacts on upstream/blocked areas

Actions:

Existing Recommendations: Provide resources to better understand impacts of downstream fisheries on upstream/blocked areas and current efforts to manage them (NOAA Biop) - TMT and FPOM

Need: understand the legal/policy differences on blocked areas between states, basins, etc.

Actions:

Existing Recommendations: