

# Fish Barrier Removal Board

## Meeting Materials

March 21, 2017

1. Draft Grant Manual
2. Work Plan Updates
3. Communication Plan Updates

## **Draft Grant Manual**

Fish Barrier Removal Board members provided many comments on this Draft Grant Manual during the March 21<sup>st</sup> meeting. These comments are being addressed. A revised Draft Grant Manual will be discussed at the April 18, 2017 Board meeting.

The Board anticipates seeking Lead Entity comments before final approval.



# Fish Barrier Removal Board Grant Program

# Operations Manual

**Date**

*Version 1.0*

***Mission Statement:  
The purpose of the Fish Barrier  
Removal Board is to aid the  
restoration of healthy and  
harvestable levels of salmon and  
steelhead statewide through the  
coordinated and strategic  
removal of barriers to fish  
passage ([RCW 77.95.160](#)).***

# **Table of Contents – TO BE UPDATED**

Highlighted sections indicate potential changes or needs

# SECTION 1: INTRODUCTION

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**In this section, you'll learn about:**

- ✓ The Fish Barrier Removal Board Grant Program
- ✓ This Manual
- ✓ RCO and WDFW contacts
- ✓ Technical Review Team
- ✓ Other resources and information

## About Fish Passage Barrier Removal Board Grant Program

The Fish Barrier Removal Board Grant Program was established by the legislature in 2014 (RCW 77.95.160, RCW 77.95.170) to assist in identifying and removing impediments to salmonid fish passage. All FBRB funded grant projects shall match the principles provided in RCW 77.95.180 and are reviewed and approved by the Fish Passage Removal Board. The program is administered jointly by the Washington Department of Fish & Wildlife (WDFW) and the Recreation and Conservation Office (RCO).

The Fish Barrier Removal Board (FBRB) has two separate funding strategies, the Watershed Pathway and Coordinated Pathway. The Watershed Pathway approach is to prioritize barrier repairs in whole stream reaches and sub-basins that will have the largest benefit to salmon at a population scale. The Coordinated Pathway approach is to leverage other fish passage investments made by WSDOT, forest industry, local governments and other entities, by funding barrier repairs in close proximity (or in coordination) to these other barrier repairs.

## About this Manual

This manual provides basic information on fish passage barrier removal projects funded by the FBRB Grant Program. The purpose of this manual is to outline the primary responsibilities of the program's grantees and explain how additional information and assistance may be obtained. This manual utilizes and references several other RCO grant materials and procedures. All materials are available electronically on the RCO Website ([www.rco.wa.gov](http://www.rco.wa.gov)) and the FBRB Website ([LINK](#)). To obtain more information or attend a Funded Project Workshop please contact RCO or WDFW staff listed below.

## Definitions

For definitions of terms used in this manual, see the Project Agreement. A sample is on the RCO Website at: [www.rco.wa.gov/documents/manuals&forms/SampleProjAgreement.pdf](http://www.rco.wa.gov/documents/manuals&forms/SampleProjAgreement.pdf).

## About the Recreation and Conservation Office

The Recreation and Conservation Office (RCO) supports the Recreation and Conservation Funding Board and the Salmon Recovery Funding Board. RCO is a state agency that administers multiple grant programs to create outdoor recreation opportunities, protect the best of the state's wildlife habitat and farmland, and help return salmon from near extinction.

## About the Washington Department of Fish & Wildlife

The Washington Department of Fish & Wildlife (WDFW) mission is to preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities. The FBRB work is under the Fish Passage & Screening Division of the Habitat Program.

## Where to Get Information

Contact Recreation and Conservation Office:

Natural Resources Building  
1111 Washington Street S.E.  
Olympia, WA 98501  
E-mail: [info@rcow.wa.gov](mailto:info@rcow.wa.gov)

*Mailing Address*

PO Box 40917  
Olympia, WA 98504-0917

Telephone: (360) 902-3000

FAX: (360) 902-3026

TTY: (360) 902-1996

Website: [www.rcow.wa.gov](http://www.rcow.wa.gov)

RCO grants managers are available to assist by answering questions concerning the information contained in this manual. Please feel free to call or email. Please visit the [Salmon Grants Manager Map](#) to find each grant manager's assigned area(s).

David Caudill	<a href="mailto:Dave.Caudill@rcow.wa.gov">Dave.Caudill@rcow.wa.gov</a>	(360) 902-2649
Kay Caromile	<a href="mailto:Kay.Caromile@rcow.wa.gov">Kay.Caromile@rcow.wa.gov</a>	(360) 902-2639
Marc Duboiski	<a href="mailto:Marc.Duboiski@rcow.wa.gov">Marc.Duboiski@rcow.wa.gov</a>	(360) 902-3137
Tara Galuska	<a href="mailto:Tara.Galuska@rcow.wa.gov">Tara.Galuska@rcow.wa.gov</a>	(360) 902-2953
Joshua Lambert	<a href="mailto:Josh.Lambert@rcow.wa.gov">Josh.Lambert@rcow.wa.gov</a>	(360) 725-3935
Alice Rubin	<a href="mailto:Alice.Rubin@rcow.wa.gov">Alice.Rubin@rcow.wa.gov</a>	(360) 902-2635
Mike Ramsey	<a href="mailto:Michael.Ramsey@rcow.wa.gov">Michael.Ramsey@rcow.wa.gov</a>	(360) 902-2969

Contact Department of Fish and Wildlife:

Natural Resources Building  
1111 Washington Street SE  
Olympia, WA 98501

Voice (360) 902-2534  
FAX (360) 902-2946  
Website: <http://wdfw.wa.gov/>

Fish Passage & Screening Division staff are available to assist by answering questions concerning the FBRB grant process, policies and procedures as well as the information contained in this manual.

Thomas Jameson	<a href="mailto:Thomas.Jameson@dfw.wa.gov">Thomas.Jameson@dfw.wa.gov</a>	(360) 902-2612
Stacy Polkowske	<a href="mailto:Stacy.Polkowske@dfw.wa.gov">Stacy.Polkowske@dfw.wa.gov</a>	(360) 902-2223
David Collins	<a href="mailto:David.Collins@dfw.wa.gov">David.Collins@dfw.wa.gov</a>	(360) 902-2556
Gina Piazza	<a href="mailto:Gina.Piazza@dfw.wa.gov">Gina.Piazza@dfw.wa.gov</a>	(360) 902-2463
Cade Roler	<a href="mailto:Cade.Roler@dfw.wa.gov">Cade.Roler@dfw.wa.gov</a>	(360) 902-0614

To identify the WDFW Area Habitat Biologists in your area, visit the [WDFW Assistance Map](#).

## Other Grant Manuals You May Need

The FBRB Grant Program utilizes RCO's Salmon Grant framework and references several other RCO manuals. Visit RCO's Website to obtain copies of these publications.

- [\*Manual 5, Restoration Projects\*](#)
- [\*Manual 7, Long Term Obligations\*](#)
- [\*Manual 8, Reimbursements\*](#)
- [\*Manual 18, Salmon Grants\*](#)

## Resource Materials

RCO and WDFW have other publications designed to explain this program including:

- Summary brochures and fact sheets that describes program's goals and funding.
- Grant program schedules, Request for Proposals and Applications.
- Grant policy manuals and guidance manual.

Visit the FBRB Website at [\(LINK\)](#) or RCO Website at [www.rco.wa.gov](http://www.rco.wa.gov) to obtain any of these free publications. All publications can be made available in an alternate format.

Project sponsors are encouraged to review the [Washington State Office of Financial Management](#) capital budget instructions. If your grant or sponsor match includes federal funds, you are asked to review the Office of Management and Budget's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards found in Title 2 of the Code of Federal Regulation.

## Successful Applicant Workshops and Sponsor Workshops

Of particular importance to those awarded funding are RCO's Successful Applicant Workshops. The Successful Applicant Workshop is usually held live or via a web based meeting once a biennium soon after projects are awarded funding. It will be posted on the RCO website to view at any time. At these workshops, participants receive important information on:

- Project sponsor responsibilities— including compliance with the project agreement, including project match requirements.
- Amendments to the agreement — including project changes, time extensions, and cost increases.
- Fish Passage projects — including construction plans, design requirements, bid procedures, donations, specifications, etc.
- Project implementation — including billings, milestones, progress reports, inspections, long term compliance, etc.

## Technical Review Team



The FBRB Technical Review Team (TRT) is composed of fish passage experts with extensive knowledge in fish passage design and construction, biology and permitting. The TRT will provide technical assistance to project sponsors developing projects during open proposal solicitation, evaluate and rank submitted proposals (see page 9), and review project designs of funded projects as they move forward to implementation (see page 13). The TRT ensures that proposed projects meet the required fish passage design criteria in the Washington Administrative Code 220-660-190, the recommendations of the Water Crossing Design Guidelines (WCDG), and the expectations of the FBRB grant program.

The FBRB Technical Review Team (TRT) will consist of the following core members:

- WDFW Fish Passage Biologist
- WDFW Habitat Engineer
- WDFW Area Habitat Biologist
- WDFW FBRB Program Manager
- RCO FBRB Grant Manager
- Other expertise or disciplines will be consulted if and when needed (such as a geomorphologist or a civil/transportation engineer)

The WDFW Fish Passage Biologist will be the primary TRT contact for the project sponsor from project development and scoping during solicitation thru project evaluation, ranking and design review. The Fish Passage Biologist will coordinate with the other TRT members accordingly. They will be the statewide FBRB program representative assigned to specific Salmon Recovery Regions and Coordinated Pathway project sponsors. They will maintain clear and open communication about project status with the project sponsors, TRT members, program managers, the Board and other invested stakeholders throughout the development, evaluation and implementation process.

The WDFW Habitat Engineer will provide technical design review of proposed projects to ensure the proposed design meets fish passage design criteria and recommendations. They may also provide design alternative suggestions, cost estimates and other technical support.

The WDFW Area Habitat Biologist will be responsible for issuing the Hydraulic Project Approval (HPA) permit for the FBRB-funded projects. They will receive design plans for FBRB-funded projects for review and comment. Early coordination with the Area Habitat Biologist will help streamline the HPA permitting process. They will also have the opportunity to provide local expertise and knowledge for developing and submitted proposals through the local Watershed Pathway prioritization process.

The WDFW FBRB Program Manager will provide general support and guidance for TRT members as needed. The Program Manager will track progress of all funded projects, review designs and comments, and troubleshoot any design/permitting or funding issues that may arise. They will help ensure statewide consistency and success in meeting programmatic expectations. They will also be the lead liaison between the WDFW Fish Passage Division, RCO and the Board, including program reporting and overseeing implementation of FBRB policies.

The RCO Grant Manager will administer all the FBRB Project Agreements as described in this manual. Their inclusion in the TRT will help facilitate a better understanding of the funded projects they will be administrating and overall program communication and success. The grant manager will be the primary point of contact once the FBRB-funded projects are under a Project Agreement with RCO.

## SECTION 2: APPLICATION INFORMATION

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**In this section, you'll learn about:**

- ✓ How to Apply
- ✓ Eligible Fish Passage Projects
- ✓ Eligible Project Owners and Sponsors
- ✓ Project Scoring and Evaluation
- ✓ Match Requirements
- ✓ Schedule and Important Dates
- ✓ Funded Projects

### How to Apply

The FBRB has two separate funding strategies, the Watershed Pathway and Coordinated Pathway. The WDFW and RCO will issue a statewide Request for Proposals (RFP) to solicit Coordinated Pathway project applications on a biennial basis. For the Watershed Pathway, a separate RFP will be issued where the TRT will work closely with the Lead Entities and Salmon Recovery Regions to identify, prioritize and develop project proposals in each of the selected and FBRB-approved HUC 10 Watersheds (Appendix A).

The RFPs will include detailed application instructions, submission requirements, timelines, and project evaluation and scoring criteria.

To submit project proposals for both the Watershed and Coordinated pathways, project sponsors will enter and submit an application in [PRISM](#), the RCO's online project database where sponsors apply for grants, review and manage information on funded grants, and produce reports about projects.

### Eligible Fish Passage Projects

All projects must correct a fish passage barrier located on a road crossing of a fish bearing stream and be a barrier to fish as defined by WDFW's "[Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual](#)." Partial or complete fish passage barriers are both eligible. Other fish passage-related project design elements may also be considered (for example, in-stream large wood structures for controlled channel regrade).

Eligible fish passage project types include road-associated culverts, dams, tide gates, irrigation diversion-associated barriers and other physical, man-made instream barriers.

Ineligible project types include natural barriers (beaver dams, waterfalls, etc.).

If you have a question about project eligibility please contact RCO or WDFW staff.

## Eligible Project Owners and Sponsors

Eligible fish passage barrier owners include private landowners, local governments (cities, counties) Native American Tribes, Non-profit organizations, Regional Fisheries Enhancement Groups, Special Purpose Districts, and state agencies. Small forest landowners (who harvest less than 2 million board feet of timber each year) are eligible but are encouraged to correct their barriers through the [Family Forest Fish Passage Program](#).

Ineligible fish passage barrier owners include federal agencies and large forest landowners (who harvest more than 2 million board feet each year) who are required to fix their fish passage barriers through DNR's Road Maintenance and Abandonment Plan (RMAP) program. Although these owners are not eligible for FBRB funding, coordination with these entities is strongly encouraged.

A project sponsor for a FBRB project can be the landowner where the fish passage barrier exists or a third-party organization. If landowners do not have extensive knowledge in implementing fish passage projects, they are strongly encouraged to use a third party organization. The WDFW and RCO staff can help landowners locate a third party organization. Project sponsors for other RCO funded salmon recovery projects are often Regional Fisheries Enhancement Groups, Conservation Districts, local governments, Tribes, and other non-profit organizations involved in salmon recovery.

If you have a question about project owner or sponsor eligibility please contact RCO or WDFW staff.

## Project Scoring Criteria and Evaluation Process

The FBRB's Technical Review Team (TRT) reviews proposed projects submitted through both funding strategies (Coordinated Pathway and Watershed Pathway) and ensures that FBRB-funded projects create actual benefits to salmon, have costs that do not outweigh the anticipated benefits, and have a high likelihood of being successful. To do so, the TRT members review project applications, conduct site visits, and provide feedback to project sponsors. Technical feedback provided by the TRT is designed to improve project concepts and overall benefits to fish and to achieve the greatest results for FBRB dollars invested.

The FBRB Grant Program will base its funding recommendations on the founding principles outlined in [RCW 77.95.180](#) and the following general categories:

- the ecological and biological impact to restoring fish populations,
- the technical merit and project readiness,
- cost justification,
- project coordination with other fish passage barrier removal projects.

The TRT will evaluate, score and rank project proposals based on the criteria described in the biennial RFP for the Coordinated Pathway and Watershed Pathway funding strategies. Each funding strategy will have its own evaluation criteria which may include: habitat quality, linear habitat gain, absence of downstream barriers, project readiness (design level, permits, sponsor capacity, matching funds, etc.), barrier status (% passability), number of anadromous species, stock status, level of coordination with other fish passage projects, proposed design and project cost.

The submitted Coordinated Pathway project proposals will be reviewed, scored and ranked separately from the Watershed Pathway project proposals. Each of the Lead Entities/Salmon Recovery Regions associated with the approved HUC 10 Watersheds (Appendix A) will submit a Watershed Pathway

proposal consisting of their top priority fish passage barriers. The TRT will merge the top-ranking Coordinated Pathway and Watershed Pathway proposals into the one prioritized funding request for Board approval and submission to the legislature.

## State Fish Passage Criteria

FBRB funded barrier corrections must meet state fish passage criteria. The [2013 Water Crossing Design Guidelines](#) (WCDG) is available on the WDFW Website. This document provides practical, real-world knowledge and techniques to improve the overall success of water crossings. These guidelines do not replace existing regulatory requirements, though it is designed in part as technical guidance supporting regulatory streamlining and grant application review for fish passage project proposals.

The guidelines discuss the geomorphic approach to water crossing design and several design options. The preference of the FBRB is for fish barriers to be repaired by abandonment, a bridge, or a stream simulation culvert. Chapter 4 of the WCDG provides guidance on Bridge Design, and Chapter 3 provides guidance on the Stream Simulation Design Option.

- **Stream Simulation Design Option** – geomorphic approach involves constructing an artificial stream channel inside the culvert, thereby providing passage for any fish migrating through the reach. The Stream Simulation Design Option is assumed to be satisfactory for adult and juvenile fish passage and tend to be used more frequently at sites where juvenile fish passage is required.

In rare and extraordinary circumstances where site constraints rule out abandonment, a bridge, or a stream simulation culvert, the FBRB may consider No-slope or Hydraulic design options:

- **No-slope Design Option** – generally limited to small, low gradient streams. The culvert must be installed at zero gradient, be countersunk and the diameter of the culvert must be at least bankfull width of the channel. There is typically less engineering analysis with this design option which is compensated with a safety factor in this sizing method.
- **Hydraulic Design Option** – requires hydrologic and open channel calculations, but usually results in smaller culverts being required than the No-Slope Design Option or a roughened channel. It is difficult in most situations, if not impossible, to comply with velocity criteria for juvenile fish passage using the Hydraulic Design Option.

## Match Requirements

Under the RCW 77.95.170, the FBRB has developed Initial Match Guidance (Appendix B) which outlines matching specifications and details on match certification credit. A minimum of 15% match of the funding request is required unless an eligible match certification credit is approved by the board or other approved authority. Matching resources may include cash, bond funds, grants (unless prohibited by the funding authority), in-kind labor, and equipment/materials. If applying for a Match Certification Credit, project sponsors will include the necessary information and form in their submitted application.

## Schedule and Important Dates

TASK	DATE	DESCRIPTION
RFPs published	TBD	Request for Proposals to FBRB mailing list and posted on RCO and FBRB website.
Register for Pre-application Site Visit	TBD	Last day to request a pre-application site visit. Not required but highly recommended.
Pre-application site visits	TBD	In-person site visits with members of the FBRB technical team. Not required but highly recommended.
Pre-proposals due (Coordinated Pathway Only)	TBD	2-3 page simple pre-proposals for Coordinated Pathway projects to present the project overview and budget for FBRB technical review team feedback and full proposal invitation.
Full proposals due	TBD	See application process steps and criteria in RFP. Proposals submitted via HWS and PRISM.
Presentations	TBD	Presentations by sponsors to technical review team and board
FBRB Preliminary Investment Plan Submitted	December 2018	Ranked project list and funding recommendations published and submitted OFM. Ranked list submitted to Governor in December.
Funding notification	By July 1, 2019	Funding notification dependent upon final 2019/2021 state budget. Funds available July 1, 2019

## Funded Projects

Project Agreements will be written for up to two years to complete the project. Extensions beyond two years will require FBRB approval. Extensions must be requested in writing, with detailed reasons for the extension request.

The Sponsor will be required to provide the following information during the life of the grant:

### During Application Cycle (as described in the RFP):

- Application Authorization Form
- Application Requirements – PRISM application
- Landowner/Sponsor Acknowledgement Form
- Barrier Evaluation Form (including Expanded section) & Correction Analysis Form
- Match Certification Credit Form** (if applicable)

### Preparing for a Project Agreement:

- Landowner Agreement
- Milestone Worksheet & Dates

### During Active Phase of the Project Agreement

- Signed Project Agreement prior to starting construction
- Progress Reports in PRISM as outlined in Project Agreement Milestones
- Final Report submitted in PRISM
- Cultural Resources documentation

## SECTION 3: PRE-CONSTRUCTION

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**In this section, you'll learn about:**

- ✓ Project Agreement and Terms
- ✓ Landowner Agreement
- ✓ Project Design Review
- ✓ Permits
- ✓ Cultural Resources

### Project Agreement

Once funds are awarded, a Project Agreement must be signed between RCO and the project sponsor before the project work can commence. A workshop will be held for landowners and project sponsors to explain the Project Agreement, Amendments to the Project Agreement, and reimbursement process. A copy of the [Project Agreement](#) can be found in RCO Manual #7 and on the RCO website. Project applicants should review carefully the terms and conditions.

### Key Project Agreement Terms

The Project Agreement must be signed by both parties (RCO and the project sponsor) before project implementation and any billing reimbursement. The purpose of this Agreement is to protect the state's investment and outline the responsibilities of the state and the sponsor. The following lists a number of the key sections of the Project Agreement. The complete Project Agreement can be found in [Manual 7](#).

This Project Agreement is used in other RCO salmon recovery grant programs.

Performance by the Sponsor: The sponsor is undertaking the responsibility for the project and must complete all elements as identified in the application materials.

Assignment: The sponsor may not transfer or assign the contract without prior approval.  
Responsibility for Project: The project remains the sole responsibility of the Sponsor.

Indemnification: The sponsor must indemnify, defend and hold harmless the State and its agencies, officials, agents and employees for this project.

Compliance with Applicable Law: The sponsor will implement the Project Agreement in accordance with applicable federal, state, and local laws and regulations.

Right of Inspection: The sponsor shall provide access to the facilities in accordance with the Project Agreement and/or Landowner Agreement.

### Landowner Agreement

If the project sponsor is a third party organization and not the landowner, a Landowner Agreement must be signed between the landowner and the sponsor to protect the state's investment in removing barriers to fish. Landowner Agreements must be in effect for a minimum of ten (10) years after

the completion of the project. An example of the Landowner Agreement can be found on RCO's website ([LINK](#)).

## Project Design Review

For design-only projects, the Technical Review Team (TRT) will meet with the project sponsor on site to discuss project alternatives and confirm a preferred alternative for the project site. The TRT will review project design deliverables at conceptual, preliminary, and final design levels as described in Appendix C. The TRT will review and submit design comments to the project sponsor within a reasonable and agreed upon amount of time from receiving the design plans. For more complicated or controversial projects an additional design review maybe requested by the TRT.

For construction projects, the TRT will meet with the project sponsor on site to discuss project alternatives and confirm a preferred alternative for the project site. The TRT will review project design deliverables at conceptual, preliminary, final and construction design levels as described in Appendix C. The TRT will review and submit design comments to the project sponsor a reasonable and agreed upon amount of time from receiving the design plans. For more complicated or controversial projects an additional design review maybe requested by the TRT.

The project sponsor will submit the design deliverables to their RCO FBRB grant manager which will trigger a TRT review and commenting period of the submitted design plans.

The preliminary design level is the time which the cost estimate developed for the project agreement should be reviewed. If project sponsor thinks there are not enough funds for construction now is the time to notify the TRT. The TRT will work with you help secure the necessary funds to complete the project if the cost increase is justified (see Amendments and Cost Increases below).

See [Appendix C: Fish Passage Project Design Deliverables](#) for guidance on what the specific design deliverables are required for conceptual, preliminary, final and construction design deliverables.

- Appendix C-1 – Conceptual Design Deliverables
- Appendix C-2 – Preliminary Design Deliverables
- Appendix C-3 – Final Design Deliverables
- Appendix C-4 – Construction Deliverables

## Project Permitting

Project coordination with the TRT will facilitate a streamlined WDFW Hydraulic Project Approval (HPA) permitting process. FBRB-funded projects will likely qualify as Fish Habitat Enhancement Projects (FHEP) under RCW 77.55.181 which exempts projects from the State Environmental Policy Act (SEPA), and all local government permits and fees. To apply for a streamlined permit process, a completed FHEP form must be submitted with the Joint Aquatic Resources Permit Application (JARPA) as indicated in the instructions.

The sponsor is responsible to obtain all necessary permits for the project and is strongly encouraged to work with the necessary regulatory authorities during the early stages of project development.

## Cultural Resources

[Governor's Executive Order 05-05 \(EO 05-05\)](#), Archaeological and Cultural Resources, directs state agencies to review certain acquisition and construction projects for potential impacts to cultural resources<sup>1</sup> to ensure that reasonable action is taken to avoid adverse impacts to these resources. The federal government, through Section 106 of the National Historic Preservation Act, requires the same compliance for projects with federal involvement, for example, projects on federal lands, with federal funds, or those that require a federal permit.

**RCO facilitates review under the Governor's executive order.** The appropriate lead federal agency facilitates review under Section 106 of the National Historic Preservation Act. If the federal review covers the entire RCO project area, there is no additional review required to meet state requirements. Both processes require review, analysis, and consultation with the Washington Department of Archaeology and Historic Preservation and affected Native American tribes for archaeological and cultural resources.

**Important Note:** Ground disturbing activities for any project, regardless of project type, that occur prior to the completion of the cultural resources review process are not eligible for reimbursement. If the sponsor has a planning or acquisition project that will involve ground disturbance (such as geotechnical excavation, demolition, fencing installation, etc.) be sure to indicate these activities in the grant application and that the grant manager is aware of this work before going under agreement. This will help ensure the appropriate review is conducted for the project.

## SECTION 4: PROJECT CONSTRUCTION

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### In this section, you'll learn about:

- ✓ Reimbursement and Eligible Costs
- ✓ Amendments and Cost Increases

## Reimbursement

The FBRB is a reimbursement grant program. RCO [Manual 8 - Reimbursements](#) describes in detail the RCO reimbursement policies. Project sponsors will have to incur costs up-front and provide expenditure documentation and a brief progress report to RCO for reimbursement. [Manual 5 - Restoration Projects](#) describes eligible construction and administrative costs. The final billing must be accompanied by a short final report. RCO will reimburse sponsors within 30 days of receipt of a complete and accurate invoice, though most payments are processed within two weeks. The last 10% of project costs will be retained until a final inspection has been completed.

Any significant change orders during the construction of the project must be submitted and approved in advance by RCO staff. In limited situations, advances can be made to third-party sponsors. Landowners are not eligible to receive advances.

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<sup>1</sup>Cultural resources means archeological and historical sites and artifacts, and traditional areas or items of religious, ceremonial, and social uses to affected tribes.



## Eligible Costs

All project costs and donations submitted for reimbursement or match must directly relate to the work identified in the Project Agreement and be considered reasonable, necessary, and eligible. Itemized lists of eligible expenses can be found in [Manual 5, Restoration Projects](#), and [Manual 7, Long-Term Obligations](#). Additional costs that may be eligible for FBRB-funded projects are described below.

### Pre-Agreement Costs

Costs incurred before the start date of the grant's project agreement will not be reimbursed, except in the following instances, and only if they are a part of the grant project agreement:

- Engineering and design costs (i.e. surveying, geotechnical, other data gathering)
- If cost-effective (i.e. materials are available at a reduced cost), the following construction materials and any associated transportation costs:
  - Culverts
  - Bridges
  - Large woody materials (if approved as a fish passage-related project design element)

Advance approval by FBRB staff is required to be reimbursed for pre-grant purchase of any construction materials listed above.

The FBRB will not pay for purchases of construction materials and associated costs, or installation costs except those noted above, incurred before project agreement.

## Amendments and Cost Increases

On occasion, the project scope or the cost of completing a project changes from what is in the Project Agreement. The Project Agreement may change with an amendment. WDFW FBRB grant program manager and RCO grant manager may authorize amendments for minor changes in scope and extensions to the project period. The WDFW Fish Passage and Screening Division Manager or FBRB may authorize major changes. Each Project Agreement amendment request will be considered and approved according to [Appendix D: FBRB Amendment Request Authority Matrix](#). Please note that for most amendment requests the project sponsor must obtain a decision from the Technical Review Team.

## SECTION 5: COMPLETING A PROJECT

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### In this section, you'll learn about:

- ✓ Site Inspections
- ✓ Site Maintenance and Long Term Obligations

### Site Inspections

At a minimum, the project sponsor can expect the following site inspections during the life of their project:

Interim: This inspection is normally coordinated with the sponsor and the RCO grant manager. Other members of the Technical Review Team may also attend. This interim site inspection is made sometime during project implementation to help resolve any apparent or anticipated problems and to monitor project progress.

Final: This site review takes place after the sponsor requests a final payment and/or final inspection. The RCO grant manager is required to attend in order to close out the grant and the issue final payment. Other members of the Technical Review Team may also attend. This request must be made only after the project is complete, architects and/or engineers have made their inspection, and defects have been corrected. The final inspection is intended to ensure that the project was completed as described in the Project Agreement. For private lands, the landowner agreement shall allow access to perform project site inspections. On completion of the final inspection and submission of a final report in PRISM the final payment, including the release of retainage, will be made.

Any time after the project is complete. The FBRB has a responsibility to ensure its investments are maintained. Periodic inspections ensure the site is described in the Project Agreement.

## Site Maintenance and Long Term Obligations

A FBFB grant comes with long-term obligations to maintain and protect the project area after the project is complete. "Project area" means the area consistent with the geographic limits of the scope of work of the project. The long-term obligations for FBRB projects are described in Section 23 of the project agreement, and [Manual 7, Long-Term Obligations](#).

The landowner is required to maintain unimpeded fish passage in perpetuity as specified by RCW 77.57.030. If you have any questions regarding this law contact WDFW.

### **RCW 77.57.030 Fishways required in dams, obstructions -- Penalties, remedies for failure.**

(1) Subject to subsection (3) of this section, a dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway approved by the director. Plans and specifications shall be provided to the department prior to the director's approval. The fishway shall be maintained in an effective condition and continuously supplied with sufficient water to freely pass fish.

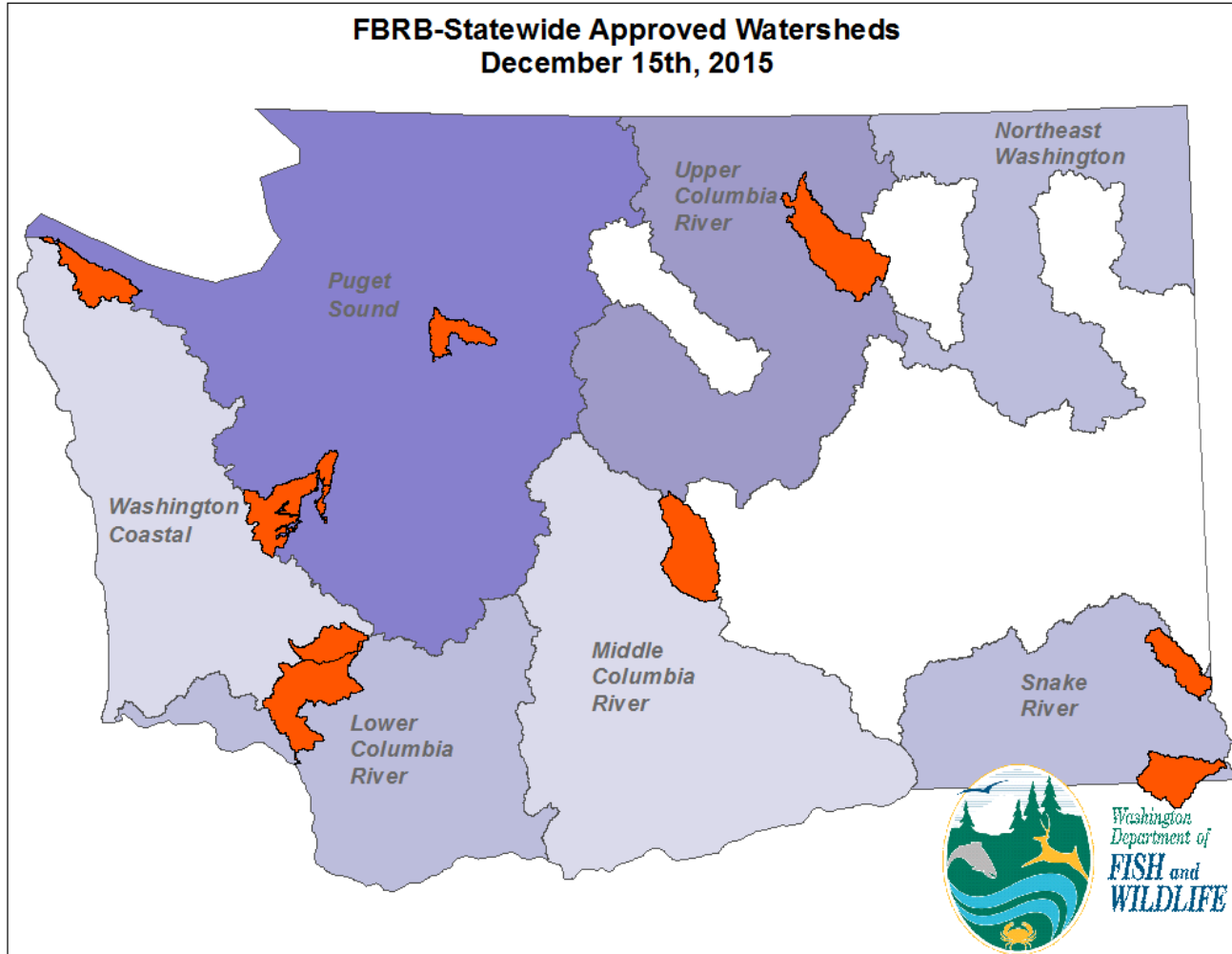
(2)(a) If a person fails to construct and maintain a fishway or to remove the dam or obstruction in a manner satisfactory to the director, then within thirty days after written notice to comply has been served upon the owner, his or her agent, or the person in charge, the director may construct a fishway or remove the dam or obstruction. Expenses incurred by the department constitute the value of a lien upon the dam and upon the personal property of the person owning the dam. Notice of the lien shall be filed and recorded in the office of the county auditor of the county in which the dam or obstruction is situated. The lien may be foreclosed in an action brought in the name of the state.

(b) If, within thirty days after notice to construct a fishway or remove a dam or obstruction, the owner, his or her agent, or the person in charge fails to do so, the dam or obstruction is a public nuisance and the director may take possession of the dam or obstruction and destroy it. No liability shall attach for the destruction.

(3) For the purposes of this section, "other obstruction" does not include tide gates, flood gates, and associated man-made agricultural drainage facilities that were originally installed as part of an agricultural drainage system on or before May 20, 2003, or the repair, replacement, or improvement of such tide gates or flood gates.



# Appendix A: Approved Watersheds in the Watershed Pathway



## **Puget Sound**

- Pysht River
- Pilchuck River
- Goldsborough Creek

## **Coast**

- Newaukum River

## **Statewide**

### Lower Columbia

- Lower Cowlitz

### Yakima Basin

- Wilson/Cherry

### Upper Columbia

- Okanogan

### Snake River

- Snake River Tribs
- Grande Ronde Tribs

# Appendix B: Fish Barrier Removal Board Initial Match Guidance

Adopted June 23, 2016

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## Match Requirements [RCW 77.95.170]

The grant program shall require a minimum dollar match rate that is consistent with the funding authority's criteria. If no funding match is specified, a match amount of at least twenty-five percent per project is required. For local, private, and volunteer projects, in-kind contributions may be counted toward the match requirement.

## Match Specifications

- Match requirements are subject to change after the 17/19 biennium at the discretion of the Fish Barrier Removal Board.
- For the initial competitive grant round (17/19 BN), the required match must equate to a minimum of 15% of the funding request. For phased projects, 15% match is required per phase/contract. For example, a design-only contract requires 15% match.
- Matching resources may include cash, bond funds, grants (unless prohibited by the funding authority), in-kind labor, equipment/materials.

## Match Certification Credit

The preference of the Fish Barrier Removal Board is for the project sponsor to provide a 15% match described above. However, the board recognizes that under certain circumstances a project match may be a hardship for the project sponsor. A match certification credit may be used to meet the spirit of providing matching resources and help increase coordination within a watershed (at a HUC 10 scale).

An eligible match certification credit is defined as one of the following:

1. ***Another fish passage barrier removal within the same watershed*** – Another fish passage barrier removal within the same watershed by the same sponsor or another entity may be used as match for Fish Barrier Removal Board funding if the following criteria are met:
  - a. The matching project was not funded by the Fish Barrier Removal Board or previously used as match.
  - b. The matching project must be congruently under contract (construction or grant) with the FBRB contract or have been constructed within the previous four years from the time FBRB funds become available (July 1, 2017).
  - c. If already constructed, the matching project must be 100% passable per WDFW barrier assessment guidelines.

- d. Eligible matching projects include design work, feasibility studies and other activities that are specific to a particular barrier removal. Watershed inventory, assessment and prioritization efforts are not eligible to use as match.
2. ***Project Sponsor Hardship*** – The project sponsor is not able to meet the minimum 15% match and there are no other fish passage barrier removal projects within the watershed that can be used as match.

The Fish Barrier Removal Board will review match eligibility for all proposed projects and may approve or deny match eligibility on a case-by-case basis. The Fish Barrier Removal Board will track match sources to avoid double matching. To apply for a match certification credit, the project sponsor must submit the following materials based on the project match eligibility to the:

Fish Barrier Removal Board  
c/o WDFW Fish Passage Division  
600 Capitol Way N.  
Olympia, WA 98501

1. *Other fish passage barrier removal within the same watershed*
  - a. Completed Match Certification Credit Form (plus attachments listed below)
    - i. A letter from the sponsor or owner removing the barrier (e.g., state, county, city, forest landowner, RFEG or CD) certifying the matching project is either under contract (construction or grant), included on a public works list and in the design or permitting phase, or a grant application is in the process of being awarded to remove the barrier. The letter must be signed by someone with signature authority within the organization.
    - ii. Submit a map and description of the project.
    - iii. Provide photos of the site.
    - iv. Provide barrier assessment information, when and who conducted the survey.
    - v. Provide a preliminary design, final design, or as-built drawings.
    - vi. Estimated or final cost of the project and completion date with supporting documentation.
    - vii. Must certify that the match is not being used or will be used for any other project.
2. *Project Sponsor Hardship*
  - a. Completed Match Certification Form (plus attachments listed below)
    - i. Provide a statement describing the match amount (or percentage) your organization can commit. Please detail the type of match and dollar or in-kind value.
    - ii. Explain the resources that have been investigated for potential match
    - iii. Explain the organizational hardship

# Appendix C: Fish Passage Project Design Deliverables

This appendix covers fish passage project design phases and deliverables. The guidance intends to provide clear requirements for documentation of the design and construction process and help you demonstrate project quality and success. Appendix D will serve as a guide for developing a project application and specific deliverables in the project agreement for project design review of funded projects.

## How Appendix C is Organized

This appendix is split into four sections. The goal is to give you a better understanding of the different design stages and deliverable expectations that will go into the project agreement. For example, D-4 covers a comprehensive fish passage project from conceptual design through construction, including as-built documentation. All fish passage projects shall follow four standard project development stages, described below, completed in a design-only grant or in a design-construction grant.

- Appendix C-1 – Conceptual Design Deliverables
- Appendix C-2 – Preliminary Design Deliverables
- Appendix C-3 – Final Design Deliverables
- Appendix C-4 – Construction Deliverables

## Project Deliverables

Included in each section of Appendix C (C1-C4) is the deliverables matrix (see below). This provides a quick reference on the intended deliverables throughout the design and construction phases so you can plan and budget accordingly for your projects. The project agreement will include specific project deliverables based on the application, FBRB Technical Review Team recommendations, and your experience. Questions in the

project proposal and PRISM allow you to provide information on the project designer, your experience, and success with similar projects.

Project Deliverables	Project Type			
	Conceptual Design	Preliminary Design	Final Design	Construction Project <sup>1</sup>
Conceptual Design	✓	Application	Application	Application
Preliminary Design Report		✓	✓	✓
Land Ownership Certification Form		✓	✓	✓
Permit Applications		Optional	Optional	✓
Design Review Comments		Optional	✓	✓
Final Design Report and Drawings			✓	✓
Technical Specifications			✓	✓
Construction Quantities and Costs			✓	✓
Bidding Documents			✓	✓
Permits			Optional	✓
Cultural Resources Compliance		2	2	✓
Control and Tenure Documents				✓
As-Built				✓

<sup>1</sup>Design-build construction projects have an abbreviated set of design requirements before construction. See Appendix C-4.

<sup>2</sup>Cultural resources compliance may be required if sponsor is conducting ground-disturbing activities during the design phases.

## Fish Passage Project Design

Fish passage projects require a designer or team with a balance of knowledge and experience within the fisheries biology, civil or environmental engineering, and other technical fields. The person or team completing the preliminary project design is required to include at least one licensed professional engineer with experience in fish passage restoration.

**If you are NOT using a licensed professional engineer for the project design, you will need to answer specific questions in the project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

## Design-Build Projects

Most FBRB sponsors complete a final design report before moving forward into construction. However, some FBRB sponsors prefer to proceed to construction after completing a preliminary design. The FBRB refers to these projects as “design-build” projects. Design-build projects should be considered only in cases where you, the designer, and the construction crew have extensive experience and successfully have completed several fish passage projects.



**If you intend to use the design-build method to complete the project, you will need to answer specific questions in the project proposal to be reviewed by the FBRB Technical Review Team.**

## **Fish Passage Design Report Examples**

To help with understanding the design report deliverable, RCO staff have published some sample design reports on the [RCO Web site](#). They include simple to complex examples to help illustrate the needed level of detail and the layout of a design report.

## **Water Crossing Design Guidelines**

The *Water Crossing Design Guidelines* is a Washington Department of Fish & Wildlife document to help the road crossing owner and designer to comply with Washington State Law that protects fish lift. This document provides practical, real-world knowledge and techniques to improve the overall success of water crossings. These guidelines do not replace existing regulatory requirements, though they are designed in part as technical guidance supporting regulatory streamlining and grant application review for fish passage project proposals.

RCO highly recommends that project sponsors and designers review the [Water Crossing Design Guidelines](#) online.

In developing your FBRB application, RCO highly recommends you consult Chapter 1 which discusses the geomorphic approach to designing fish passage corrections and the other relevant chapters for your project. Chapter 2 provides guidance on No-Slope culvert design, Chapter 3 covers Stream Simulation culvert design, Chapter 4 provides Bridge design criteria and Chapter 6 provides guidance on Hydraulic design options.

## **Stream Habitat Restoration Guidelines**

The *Stream Habitat Restoration Guidelines* are part of a series of guidance documents produced with Salmon Recovery Fund Board (FBRB) funding through the Aquatic Habitat Guidelines program. The Aquatic Habitat Guidelines program is a joint effort among state and federal agencies in Washington, including the Washington Departments of Ecology, Fish and Wildlife, Natural Resources, and Transportation; the Washington State Recreation and Conservation Office (FBRB); Puget Sound Partnership; the U.S. Fish and Wildlife Service; and the U.S. Army Corps of Engineers. The aquatic habitat guidelines do not replace existing regulatory requirements, though they are designed in part as technical guidance supporting regulatory streamlining and grant application review for stream restoration proposals.

RCO highly recommends that project sponsors review the [Stream Habitat Restoration Guidelines](#) (2012) online. The guidelines promote process-based natural stream restoration.

In developing your FBRB application, RCO highly recommends you consult Chapters 4 and 5 of the *Stream Habitat Restoration Guidelines*. Chapter 4 provides guidance for developing goals and objectives for your restoration projects as well as your restoration strategies. Chapter 5 provides guidance on designing and implementing restoration techniques.

# Appendix C-1: Conceptual Design Deliverables



Project Deliverables	Project Type			
	Conceptual Design	Preliminary Design	Final Design	Construction Project <sup>1</sup>
Conceptual Design	✓	Application	Application	Application
Preliminary Design Report		✓	✓	✓
Land Ownership Certification Form		✓	✓	✓
Permit Applications		Optional	Optional	✓
Design Review Comments		Optional	✓	✓
Final Design Report and Drawings			✓	✓
Technical Specifications			✓	✓
Construction Quantities and Costs			✓	✓
Bidding Documents			✓	✓
Permits			Optional	✓
Cultural Resources Compliance		2	2	✓
Control and Tenure Documents				✓
As-Built				✓

<sup>1</sup>Design-build construction projects have an abbreviated set of design requirements before construction. See Appendix C-4.

<sup>2</sup>Cultural resources compliance may be required if sponsor is conducting ground-disturbing activities during the design phases.

All fish passage projects shall follow four standard project development stages: Conceptual design, preliminary design, final design, and the construction phase. The table above lists deliverables for all projects, with the conceptual design deliverables highlighted. The deliverables are further described in Appendices C 1-4. This guidance intends to ensure that you, evaluators, and the FBRB have the same expectations for grant agreement deliverables.

## Conceptual Design Deliverables

Submit the following deliverables to your FBRB grants manager along with any assessment and feasibility deliverables funded in the scope of work.

1. Description of the project site and the problems within the context of salmon recovery.

2. Identification of specific goals and objectives for addressing the problems.
3. Identification and conceptual design of alternatives for achieving the project objectives. Each conceptual design alternative must include a description of the design and a plan view drawing of existing site conditions and the proposed project on accurately scaled site plans. The plan view drawing must include an area/location map, property boundaries (either surveyed or approximated based on assessor's data), landownership, roads or other infrastructure as appropriate, scale, north arrow, water bodies and direction of flow, bank-full width or mean high water line for marine waters, and approximate dimensions of proposed elements.
4. Evaluation and discussion of stakeholder comments and the pros and cons of each alternative.
5. Selection of the preferred alternative(s).
6. Rough construction cost estimate of the preferred alternative(s).

# Appendix C-2: Preliminary Design Deliverables



Project Deliverables	Project Type			
	Conceptual Design	Preliminary Design	Final Design	Construction Project <sup>1</sup>
Conceptual Design	✓	Application	Application	Application
Preliminary Design Report		✓	✓	✓
Land Ownership Certification Form		✓	✓	✓
Permit Applications		Optional	Optional	✓
Design Review Comments		Optional	✓	✓
Final Design Report and Drawings			✓	✓
Technical Specifications			✓	✓
Construction Quantities and Costs			✓	✓
Bidding Documents			✓	✓
Permits			Optional	✓
Cultural Resources Compliance		2	2	✓
Control and Tenure Documents				✓
As-Built				✓

<sup>1</sup>Design-build construction projects have an abbreviated set of design requirements before construction. See Appendix C-4.

<sup>2</sup>Cultural resources compliance may be required if sponsor is conducting ground-disturbing activities during the design phases.

This appendix describes the project deliverables for preliminary design level. This guidance intends to ensure that you, evaluators, the FBRB have the same expectations for grant agreement deliverables.

All fish passage projects that include design elements shall follow four standard project development stages: Conceptual design, preliminary design, final design, and the construction phase. The table above lists the deliverables for all projects, with the preliminary design deliverables highlighted. Appendices C 1-4 describes the deliverables.

**If you intend to deviate from the guidance in this appendix, you must answer specific questions in the project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

## Preliminary Project Design

FBRB uses the term “preliminary project design” to define an intermediate deliverable in a final design or construction project. Preliminary designs intend to advance project concepts to a detailed understanding and quantification of all the major project elements.

Preliminary designs may traditionally be labeled “30 percent design,” “50 percent design,” etc., but these numeric labels tend to confuse the process and do not always reflect the design detail of the project. Therefore, we request that you and consulting engineers use the FBRB definitions for consistency.

Fish Passage projects require a design team with a balance of knowledge and experience within the fisheries biology, civil engineering, and other technical fields. The person or team completing the preliminary project design is required to include at least one licensed professional engineer, who would be qualified to follow through with the final project design. Certain projects where project design is straightforward and sponsor liability concerns are minimal may not require a licensed professional engineer; people with applicable experience and technical knowledge may complete the design without the requirements for a licensed engineer.

**If you will NOT use a licensed professional engineer for the project design, you will need to answer specific questions in the salmon project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

## Preliminary Design Process

While the detailed scope of each project’s preliminary design process is unique, in general, the process for developing a preliminary design includes preparing surveyed site plans; conducting field investigations of hydrologic, geotechnical, and other site conditions; conducting data analysis; preparing drawings and designs; preparing the design report; and preparing engineering cost estimates. For additional detailed guidance on designing and implementing fish Passage projects, please refer to Chapters 4 and 5 of the [Stream Habitat Restoration Guidelines](#).

## Preliminary Design Deliverables

Preliminary designs must adequately describe all proposed project elements in sufficient detail for permit review and authorization. While the design team may tailor the design process to suit the unique circumstances of each project, the following project deliverables are required for the preliminary design level review:

- A. Preliminary design report, drawings, and engineering cost estimate
- B. Landownership Certification Form ([Appendix O](#)), if not already provided

C. Design review comments (optional)

D. Permit applications (optional)

You must submit these deliverables to your FBRB grants manager at the close of your preliminary design project. The following section provides more details on the preliminary design deliverables.

### A. Preliminary Design Report, Drawings, and Construction Cost Estimate

A design report is a record of the technical decisions that inform the development of the selected project design either at the preliminary or the final design stage. By clearly documenting and explaining the design process, the report allows reviewers and other stakeholders to understand the proposed project and the relevant factors that contributed to its design. The preliminary design report must describe all elements of the project and be sufficiently detailed to support project permitting.

While the design team may structure the design report to suit the circumstances of its project, in general, the design reports should include the following elements:

- **Introduction:** An explanation of the purpose of the project and its specific habitat restoration goals and objectives.
- **Existing Conditions:** A characterization and analysis of the existing conditions that may be relevant to project design. Typically these conditions include: Description of the problem; summary of site, reach, and watershed conditions; biological and water quality factors as they relate to the project conditions; site history and constraints that have led to the observed problems and which may present challenges to restoration; and description of identified causes of the problem. This section typically includes historical data; surrounding land uses; landowner and community expectations; survey information (topographic, geomorphic, and vegetative); sediment sampling; water velocities, depths, and flow rates; groundwater or hyporheic flow evaluation ranges; tidal elevation and ranges; and maintenance requirements and others. The level and detail of survey and data collection needed is dependent upon project goals, objectives, sales, and the context of the project.
- **Preliminary Design Alternatives:** An identification, description, and evaluation of design alternatives considered for achieving the project goals and objectives. Describe each element of the design alternatives. Include a comparison of each of the alternatives discussing project objectives, other evaluation criteria (such as fish benefit, maintenance, sustainability, social acceptance, etc.) and cost, to the extent that cost data is available at this stage of the design process.

- **Preferred Alternative:** A description of a preferred alternative and the rationale for choosing it, citing the relevant factors described above. Include a brief explanation of why the other alternative(s) were not selected.
- **Design Considerations and Preliminary Analyses:** A listing of specific design criteria that defines the intent and expectations for each project element. Design criteria are specific, measurable attributes of project features that clarify the purpose of each project element and articulate how each element will contribute to meeting the overall project's goals and objectives. Include justification and documentation of design methods applied, including assumptions that facilitated the design. Provide design output, including analytical results of all technical and design analyses and how these translate to project element designs.
- **Permitting and Stakeholder Consultation:** A description of regulatory and/or other public consultation activities carried out and how the review comments from agencies and other stakeholders were addressed in the preliminary design. This section is optional based on proposed deliverables in the application.
- **Preliminary Design Drawings:** The preparation of preliminary design drawings is a key step to producing a successful habitat restoration project. All design and restoration projects require preliminary design drawings. Please produce all preliminary design drawings in digital format (e.g. AutoCAD), each drawing should be to scale, and it is strongly suggested that the vertical and horizontal scales on the drawings be kept the same.

For the preferred alternative, minimum drawing requirements include depiction of all elements of the project in sufficient detail to support project permitting, and include at a minimum the following:

- Existing site plan showing: Area/location map; property boundaries; landownership; road, utilities, or other infrastructure as appropriate; scale; north arrow; water bodies and direction of flow; and bank-full width or mean low and high water (marine waters).
- Project site plan view drawing(s) showing proposed actions overlaid on the existing site plan (above). The site plan should include all project elements including installation and removal of fill, wood, rock, culverts, infrastructure, clearing and staging, dewatering, etc.
- Project profile and cross-section at important project locations showing water surface elevations relevant to the design (e.g. ordinary high water, maximum design flow, tidal elevations, flood elevations, etc.)



- Structure design details, as needed.

Provide additional design drawings for complex projects and projects with multiple features or multiple sites.

- **Construction Quantities and Preliminary Construction Cost Estimate.**
- **Appendices:** Include references, analytical and model inputs and outputs, and other supporting documentation.

### B. Design Review Comments (Optional at Preliminary Design Phase)

Send the preliminary design report and drawings to relevant stakeholders and the FBRB grants manager after your in-house review. After a reasonable time for review, you are encouraged to plan an on-site visit to review the design plans at the project location with stakeholders (e.g. landowners, co-managers, technical review team, FBRB grants manager, etc.).

These steps have been very useful for a comprehensive “reality check” for stakeholder review and consideration of all stated project objectives.

You shall send your FBRB grants manager a memo (or similar correspondence) that consolidates stakeholder comments and other considerations received during design review. The memo should describe how the comments have (or have not) been incorporated into the design. Distribute this memo to all entities involved in the review. This step is optional because for some sponsors this step is more practical during the final design phase.

### C. Permit Applications (Optional at Preliminary Design Phase)

You should provide permit applications or proof of permit receipt (e.g. copies of permits or permit numbers and issue dates) to the FBRB grants manager or in the PRISM progress report under the “Permit” tab. This step is optional at the preliminary design phase because, for some sponsors, this step is more practical during the final design phase.

# Appendix C-3: Final Design Deliverables

Project Deliverables	Project Type			
	Conceptual Design	Preliminary Design	Final Design	Construction Project <sup>1</sup>
Conceptual Design	✓	Application	Application	Application
Preliminary Design Report		✓	✓	✓
Land Ownership Certification Form		✓	✓	✓
Permit Applications		Optional	Optional	✓
Design Review Comments		Optional	✓	✓
Final Design Report and Drawings			✓	✓
Technical Specifications			✓	✓
Construction Quantities and Costs			✓	✓
Bidding Documents			✓	✓
Permits			Optional	✓
Cultural Resources Compliance		2	2	✓
Control and Tenure Documents				✓
As-Built				✓

<sup>1</sup>Design-build construction projects have an abbreviated set of design requirements before construction. See Appendix C-4.

<sup>2</sup>Cultural resources compliance may be required if sponsor is conducting ground-disturbing activities during the design phases.

This appendix describes the project deliverables for final design level. This guidance intends to ensure that you, evaluators, and the FBRB have the same expectations for grant agreement deliverables.

All fish passage projects shall follow four standard project development stages: Conceptual design, preliminary design, final design, and the construction phase. The table above lists deliverables for all projects, with the final design deliverables highlighted. Appendices C 1-4 describe the deliverables.

**If you intend to deviate from the guidance in this appendix, you must answer specific questions in the salmon project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

## **Final Project Design**

The final project design will incorporate comments provided by stakeholders, FBRB, and/or permit agencies regarding the preliminary design report and on-site review. The final design process must address and resolve all substantial issues raised in the permitting and stakeholder review process, so that all stakeholders agree on the final plans.

The final project design process converts the preliminary design drawings and report into a stand-alone and comprehensive set of final design drawings (construction drawings) and technical specifications for project construction. A licensed professional engineer must supervise the preparation of the final design unless the project design is straightforward and sponsor liability concerns are minimal. In that case, a licensed professional engineer may not be required and individuals with applicable experience and technical knowledge may complete the design without the requirements for a licensed engineer.

## **Final Design Deliverables**

While the design team may tailor the design process to suit the unique circumstances of each project, the following are required deliverables for final design and restoration projects. Your FBRB grants manager must accept these required deliverables before you move forward to construction.

- A. Design review comments;
- B. Final design report and drawings (please refer to Section C-2 for a list of items to include in your design report);
- C. Landownership Certification Form, if not already provided
- D. Technical specifications;
- E. Final construction quantities and costs;
- F. Contract bidding documents and general contract conditions (unless the project will be built by sponsor crew); and
- G. Construction permits (optional)

The following section provides more details on the final design deliverables.

### **A. Design Review Comments**

The design review memo may be included in the final design report or submitted as a separate document.

You shall submit a memo that consolidates stakeholder comments and other considerations received during preliminary design review. The memo should explain how the comments and other feedback have, or have not, been included in the final design. Distribute this memo to all entities involved with design review. This step may have been completed during the preliminary design phase.

### B. Final Design Report and Drawings

Revise the preliminary design report and drawings to address the review and permitting comments, as needed. RCO may need additional detailed drawings to clarify the design of specific work items. Final designs should define the project elements considered essential to meet project's goals and objectives in sufficient detail to minimize changes made during construction.

### C. Technical Specifications

Technical specifications may be included in the final design report or as a separate document.

Support all work shown on project drawings with one or more technical specifications to further describe and/or control the work. The construction contractor should know about project materials, technical requirements, project elevations, permit requirements, or any other elements of the proposed project. Clear and detailed technical specifications reduce on-the-ground adjustments and changes that may deviate from the original project objectives.

### D. Final Construction Quantities and Costs

Construction quantities and costs may be included in the final design report or as a separate document.

FBRB-funded projects require a detailed list of work items and quantities as part of the final project design; the practice of listing a lump sum cost for the entire project is not acceptable. A detailed breakdown of work quantities typically includes 10 to 40 separate work items, matched with respective estimated quantities. Generate a construction cost estimate for comparison with contractor bids to ensure a competitive bid; any experienced project designer can produce this estimate, traditionally termed "engineer's estimate."

### E. Contract Bidding Documents and General Contract Conditions

Contract bidding documents and contract conditions may be included in the final design report or as a separate document.

If you intend to use your own construction crew, this subsection is not applicable; however, the requirements for technical specifications and a detailed list of work items (above) would still apply.

Bidding documents should include: A bid form, definitions, a proposed agreement (to be between you and contractor), general conditions, special provisions, technical specifications, and the project drawings (usually bound separately).

Contractor selection for FBRB-funded projects shall use good business practices, which could include selective negotiations with known contractors, public advertisement for bidding, or competitive bidding using some combination of proposed price and contractor qualifications. The contractor selection process should be objective and defensible in case of contest by companies not selected for the construction work. You must follow any applicable state and/or required federal procurement procedures.

### F. Construction Permits (Optional at the Final Design Phase)

You should provide permit applications, or proof of permit receipt (e.g. copies of permits or permit numbers and issue dates) to your FBRB grants manager or in your PRISM progress reports under the "Permit" tab. This step is optional at the final design phase because, for some sponsors, this step is more practical during the construction phase. You are required to meet the deliverables outlined in your project agreements.

# Appendix C-4: Construction Deliverables



Project Deliverables	Project Type			
	Conceptual Design	Preliminary Design	Final Design	Construction Project <sup>1</sup>
Conceptual Design	✓	Application	Application	Application
Preliminary Design Report		✓	✓	✓
Land Ownership Certification Form		✓	✓	✓
Permit Applications		Optional	Optional	✓
Design Review Comments		Optional	✓	✓
Final Design Report and Drawings			✓	✓
Technical Specifications			✓	✓
Construction Quantities and Costs			✓	✓
Bidding Documents			✓	✓
Permits			Optional	✓
Cultural Resources Compliance		2	2	✓
Control and Tenure Documents				✓
As-Built				✓

<sup>1</sup>Design-build construction projects have an abbreviated set of design requirements before construction. See Appendix C-4.

<sup>2</sup>Cultural resources compliance may be required if sponsor is conducting ground-disturbing activities during the design phases.

This appendix describes the project deliverables for all fish passage construction projects where you intend to construct the project using a traditional construction or a “design-build” method. This guidance intends to ensure that you, evaluators, and the FBRB have the same expectations for grant agreement deliverables.

All fish passage projects shall follow four standard project development stages: Conceptual design, preliminary design, final design, and the construction phase. The table below lists deliverables for all projects with the construction and design-build deliverables highlighted. Appendices C 1-4 describe the deliverables.

**If you intend to deviate from the guidance in this appendix, you must answer specific questions in the salmon project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

## Design-Build Projects

Most FBRB sponsors complete final design reports before moving forward into construction. However, some FBRB sponsors prefer to proceed to construction after completing a preliminary design. FBRB refers to these projects as “design-build” projects.

Design-build projects are considered only in cases where you, the designer, and construction crew have extensive experience and have been successful with a fish passage correction projects. Additionally, design-build may be considered where design is straightforward and your liability concerns are minimal. Design-build projects typically develop less detailed drawings before construction than other construction projects. In exchange, design-build documents typically include a detailed written description of how various project elements will be located and constructed in the field. Design-build projects require the project designer to provide a high level of construction oversight to ensure the project goes as planned. You should develop detailed, as-built drawings following construction, and submit them to RCO grant manager before project close out. You must obtain all required permits before construction.

**If you intend to use the design-build method to complete a project, you must answer specific questions in the salmon project proposal to be reviewed by the FBRB Technical Review Team during the application process.**

Your application and the FBRB Technical Review Team’s recommendations will develop the specific deliverables for design-build projects. The special conditions section of your project agreement will identify specific project deliverables.

## Construction Phase

This section identifies the required pre-construction deliverables, the construction management process, and “as-built” requirements.

### Pre-Construction Deliverables

- 1. Control and tenure documentation.** Before construction, you must provide control and tenure documentation of the property being restored. See Manual 18, Salmon Recovery Grants, [Section 6](#) for more information.
- 2. Cultural resources review.** Real property restored through RCO funding is subject to [Governor’s Executive Order 05-05](#) or compliance with Section 106 of the National Historic Preservation Act. RCO requires documented compliance with the applicable cultural resources review process. For more information on cultural resources review, see Manual 18, Salmon Recovery Grants, [Section 6](#).
- 3. Proof of permits.** Before construction, you must secure all necessary permits and submit proof of permit receipt (e.g. copies of permits or permit numbers and issue dates) to your RCO FBRB grant manager or in your PRISM progress reports under the “Permit” tab. You may have completed this pre-construction task in an earlier design phase.

## **Construction Management**

To minimize unintended errors introduced during construction, FBRB highly recommends that the project designer has direct, on-site involvement during all phases of construction. Some project sponsors may have extensive construction experience and knowledge, and may perform daily construction supervision. FBRB recommends that you and the designer agree to some sharing of construction supervision responsibilities with mutual confidence required of both entities. The designer/engineer should be confident that the on-site construction inspector will recognize any problems before construction is complete and ensure that there is daily communication between the construction inspector and designer/engineer. The project designer/engineer should review and approve substantial changes during construction before implementation.

### **Post-Construction Deliverable: “As-Built Drawings”**

Document all changes made during construction. “As-built drawings” refers to the conventional term applied to project design drawings modified by the engineer/designer after completion of construction to document the completed project. Prepare as-built drawings if changes were made to the final design during construction and if you are using a design-build construction approach. Submit these drawings to the RCO FBRB grant manager after project completion.

Instead of the conventional as-built drawings described above, FBRB may allow you to submit the following as-built documentation:

- Original final designs (if no changes were made during construction).
- Original final designs with a list of change orders describing the construction changes.
- A design memo from the designer/engineer with notations on the final design/construction plans identifying the changed elements of the project with photo-points and photographs showing the project post-construction.



# Draft Appendix D: FBRB Amendment Request Authority Matrix

Adopted DATE

You may appeal any decision to the FBRB.

<sup>1</sup>Cost increases may be granted only if funding is available.

Consult means the project sponsor obtains a decision from its technical review team.

Amendment Request	Project Sponsor	WDFW Division Manager	FBRB Technical Review Team	FBRB	Example
1. Increase project funds due to project overruns <sup>1</sup>	Consult	May approve or recommend	Available to review change	May approve	The site had different soil types than expected and it cost more than anticipated to do the geotechnical analysis, design, and install the culvert. You now request an increase in FBRB funds.
2. Increase/decrease project scope (no funding change)	Consult	May approve or recommend	Available to review change	May approve	You plan to replace two barrier culverts. After designing the project, you realize you only have funds to install one culvert. You request a scope reduction, but still need to use all the funds.
3. Transfer sponsorship	Consult	May approve			Original sponsor is unable to start or complete the work and requests a different sponsor finish the project.

4. Reduced match	Consult	May approve or recommend	Available to review change	May approve	You received \$75,000 from FBRB and provided \$33,000 (30 percent) in match for a total project cost of \$108,000. Later, you realized you only could raise a match of \$14,000 (15 percent) for a total project cost
5. Match Certification Credit	Consult	May approve or recommend	Available to review change	May approve	You are unable to meet the 15% match requirement using approved matching resources so you apply to use another fish passage barrier removal project in the same watershed as a match certification credit.
6. Significant change in the project location	Consult	May approve or recommend	Available to review change	May approve	You are unable to replace a culvert at the proposed location and ask to replace a culvert on another river, WRIA, or to benefit different fish.

### TIMELINE FOR ACTIONS

Original tasks from workplan adopted in 2015

ACTION	TIMELINE	RESPONSIBILITY	STATUS/COMMENT
Organize, Chair and Support Fish Passage Barrier Removal Board	6/2014	WDFW	<b><i>DONE</i></b>
Develop internal bylaws and communication	Ongoing	FBRB	<b><i>DONE/ONGOING</i></b>
Review bylaws annually	June 2015	FBRB	
Consider FBRB membership annually	June 2015	FBRB	
Develop annual workplan and update annually	June 2015	FBRB	<b><i>DONE</i></b>
Develop communication plan	September 2015	WDFW w/FBRB assistance	<b><i>DONE; CURRENTLY IMPLEMENTING</i></b>
Participate in annual Salmon Recovery workshops	May 2015	Chair/other members	<b><i>DONE/AGAIN IN 2017??</i></b>
Connect with WFPA and Ecology	August 2015	WDFW	<b><i>WFPA – YES, ECOLOGY – ?</i></b>
Meet with on-the-ground implementers of projects	Begin in Summer 2015	FBRB	
Develop a prioritization methodology	Summer 2015	FBRB	<b><i>DONE</i></b>
Continue work with PSP/Salmon Recovery Council on Puget Sound approach to prioritization	Summer 2015	FBRB	<b><i>DONE</i></b>
Get feedback from public and adopt prioritization approach	Summer 2015	FBRB	<i>Mixed – approach adopted, feedback from public? Discuss what this means to FBRB</i>
Do assessment of what resources are needed to support FBRB	December 2015	WDFW	<b><i>DONE</i></b>
Seek resources as described by assessment	December 2015/ongoing	WDFW and FBRB	<b><i>DONE</i></b>
Develop plan to coordinate information sharing and coordinate activities	December 2015/ongoing	FBRB	
Discuss technical assistance	December 2015	WDFW w/FBRB assistance	
Annual report to BRB on WSDOT and WDFW coordination efforts	September 2015	WDFW, WSDOT	<i>Report from Paul Wagner?</i>
Database presentation to FBRB	September	WDFW	<b><i>PART OF TECHNICAL ASSISTANCE COMPONENT</i></b>

	2015		
Training program presentation to FBRB	December 2015	WDFW	<b><i>PART OF TECHNICAL ASSISTANCE COMPONENT</i></b>
Identify available funding for grant program and propose funding mechanism	December 2015	WDFW with FBRB assistance	<b><i>DONE</i></b>
Develop a grant program	September 2015	FBRB	<b><i>DONE (PROPOSED RCO MANAGEMENT)</i></b>
Seek efficiencies/streamlining for federal permits	Ongoing	WDFW	<b><i>UPDATE FBRB</i></b>
Seek authorization for using local/state mitigation funding for barrier removal projects	December 2015	FBRB	<b><i>STATUS? STILL APPROPRIATE?</i></b>

**PROPOSED WORKPLAN TASKS**

*After discussion by FBRB at March meeting, workplan language will also be revised  
3/16 draft*

<b>ACTION</b>	<b>TIMELINE</b>	<b>RESPONSIBILITY</b>	<b>STATUS/COMMENT</b>
Review bylaws annually	Summer 2017	FBRB	
Consider FBRB membership	Summer 2017	FBRB	
Review and update workplan	Spring 2017	FBRB	
Review and update communication plan; continue implementing	Spring 2017 and ongoing	WDFW w/FBRB assistance	
Participate in annual Salmon Recovery workshops	Ongoing	Chair/other members	
Review Puget Sound/Coast approach to prioritization	Spring 2017	FBRB	
Develop plan to coordinate information sharing and coordinate activities	?	FBRB	
Describe ongoing technical assistance and identify gaps	?	WDFW w/FBRB assistance	
Annual report to BRB on WSDOT and WDFW coordination efforts	September 2015	WDFW, WSDOT	
Database presentation to FBRB	April 2017	WDFW	
Training program presentation to FBRB	?	WDFW	
Seek efficiencies/streamlining for federal permits	Ongoing	WDFW	
Seek authorization for using local/state mitigation funding for barrier removal projects	Ongoing	FBRB	
<b>PROPOSED NEW TASKS</b>			
Develop FBRB website	June 2017		
Develop guidance for future grant rounds: which portions of project are fundable	?	FBRB	
Impacts of stormwater on fish continue to track this issue	Ongoing	FBRB	
Issue of partial and full barriers downstream – revisit the policy	Summer 2017	FBRB	

**COMMUNICATION PLAN REVIEW – March 21, 2017 Meeting of FBRB**

ACTIONS	STATUS/NOTES
<p>1) DEVELOP A COMPELLING STORY THAT COMMUNICATES THE VALUE AND URGENCY OF FISH PASSAGE BARRIER REMOVAL.</p> <ul style="list-style-type: none"> <li>▪ While the details of the FBRB program are being defined, FBRB must work to tell a compelling story of the general value of fish passage and the Fish Passage Barrier Removal Board.</li> <li>▪ It will be important to share the story consistently on all channels as outlined in the Priority Actions (6, 7, and 9).</li> <li>▪ When the program is defined, FBRB must update the story to include the details of the program. And they must update the story on all channels.</li> <li>▪ It will be important to incorporate visuals, maps, and pictures to make the story more engaging.</li> </ul>	<p>We have created some products that fit under this item – for example, the story board, the video that we saw in February, the video from state of Alaska. We should put out these items through our normal channels. Might consider producing another video about the salmon life cycle.</p> <p>Consider packaging videos and getting them to staff of legislative committees such as Ways and means.</p> <p>Other possible video to create is on different types of barrier solutions.</p>
<p>2) DEFINE THE DETAILS OF THE FISH PASSAGE BARRIER REMOVAL BOARD PROGRAM.</p> <ul style="list-style-type: none"> <li>▪ If FBRB is to convince state legislators to fund the program in 2017, then they must define the program by mid-2016 and share the details with advocates and legislators.</li> </ul>	<p>Completed.</p>
<p>3) SUPPORT WDFW TO MAKE A CAPACITY REQUEST OF THE STATE LEGISLATURE IN 2016. THE FUNDING WILL ALLOW THEM TO GUIDE AND STAFF THE DEVELOPMENT OF THE FBRB PROGRAM.</p> <ul style="list-style-type: none"> <li>▪ WDFW submitted an internal agency request that will come before the legislature as part of the supplemental budget. It will fund the agency's capacity to work with FBRB to develop the FBRB program. Some of the needs include resources to complete research, monitoring, creation of informational tools, and identification of priority projects.</li> <li>▪ A letter of support from FBRB members and/or other means of support for the WDFW request, including testimony and/or otherwise helping to educate key legislators and influencers will be important.</li> </ul>	<p>Completed.</p>

<ul style="list-style-type: none"> <li>▪ In advance of the 2016 legislative session, members need to reach out to partners and decision-makers to build support for fish passage and FBRB. They will be able to use the new messaging and materials. See Priority Actions (6, 7, and 9).</li> <li>▪ It will be important for FBRB to form a subgroup to coordinate legislative outreach. In the plan, we will refer to the subgroup as the Legislative Working Group. For best effect, the group should form before January 2016 so that they can coordinate support for the WDFW funding request.</li> </ul>	
<p>4) MEET WITH THE SALMON RECOVERY FUNDING BOARD TO INSPIRE THEM TO ENGAGE AND INVEST IN FISH PASSAGE AND FBRB.</p> <ul style="list-style-type: none"> <li>▪ The Salmon Recovery Funding Board (SRFB) is an essential partner in the effort to promote fish passage barrier removal. A collaborative approach should be developed.</li> <li>▪ Members of FBRB plan to meet with the SRFB on December 9, 2015.</li> </ul>	<p>SRFB continues to be an important partner; seek their input.</p>
<p>5) ESTABLISH THE FBRB AS A RESOURCE TO HELP FISH PASSAGE BARRIER OWNERS TO COMPLETE BARRIER REMOVAL PROJECTS INDEPENDENTLY.</p> <ul style="list-style-type: none"> <li>▪ FBRB must establish itself as a trusted resource for information, guidance, and inspiration.</li> <li>▪ Even while the details of the FBRB program are being developed, it will be important to reach out to state agencies, cities, counties and others to share that the resources are being developed.</li> </ul>	<p>More work is needed on this item. Questions and comments:</p> <ul style="list-style-type: none"> <li>• Are there other barrier removal programs we should link to?</li> <li>• Creation of a FBRB website should help; estimate about \$15,000 to \$20,000 to develop</li> <li>• Develop information sheet on “best practices to get your project approved:</li> </ul>
<p>6) TRAIN KEY MESSENGERS AND EQUIP THEM WITH TOOLS AND AN OUTREACH STRATEGY TO TELL THE STORY OF FISH PASSAGE.</p> <ul style="list-style-type: none"> <li>▪ FBRB will host a communications strategy and messaging workshop (January 8, 2016) for FBRB board members and their organizations’ communications leads. Regional salmon recovery directors and their communications’ staff will be invited as well.</li> <li>▪ For the initial list of external and internal audiences, please see section IV. Audiences.</li> </ul>	<p>Workshop was held. Additional work could be done with audiences.</p>

<p>7) UPDATE THE FBRB WEBSITE, ONLINE PRESENCE, AND MATERIALS.</p> <ul style="list-style-type: none"> <li>▪ Board members should consider whether it is preferable for the FBRB “main website” to be hosted by WDFW, or whether a new location and design are needed.</li> <li>▪ FBRB board member organizations’ websites and materials will need to be updated to tell the new story of fish passage barrier removal. Also, all member websites should link to the FBRB “main website” that will also be updated with new messaging.</li> <li>▪ FBRB is working with Pyramid Communications to develop messages and materials to compel key decision-makers to support fish passage barrier removal. Please see section V. Messages and section VI. Materials for more details.</li> <li>▪ FBRB support staff should create an archive of stories that help illustrate how a coordinated effort to remove barriers statewide maximizes benefits.</li> </ul>	<p>See discussion under item 5. Relevant materials from partner agencies would also be collected here.</p>
<p>8) SEEK STATE FUNDING FOR FISH PASSAGE BARRIER REMOVAL IN THE 2017 LEGISLATIVE SESSION</p> <ul style="list-style-type: none"> <li>▪ The board must have a clear definition of the program by mid-2016 in order to mount a successful request for 2017.</li> <li>▪ Association of Washington Cities and Washington State Association of Counties representatives are ready to lead support for another board member (likely a state agency) to make a legislative funding request in 2017.</li> <li>▪ As part of the legislative funding requests, the board will stress the need for new allocations of salmon recovery funds for fish passage rather than a reallocation of existing funds.</li> </ul>	<p>Gary Rowe, with support from Carl Schroeder, has taken the lead for the current legislative session. Support from other FBRB members, as appropriate and allowed by their agencies, may be needed.</p>
<p>9) PROACTIVELY BUILD RELATIONSHIPS WITH THE MEDIA</p> <ul style="list-style-type: none"> <li>▪ Even before the FBRB program is defined, FBRB and partners must educate the media about the benefits and purpose of coordinated fish passage barrier removal and equip them with compelling stories.</li> <li>▪ Please see section IV. Audiences for more details on the media outlets that FBRB should reach. It will be of particular importance for FBRB to reach out to outlets like KING 5 that have reported on fish passage previously and work with them to shift how they frame the story.</li> </ul>	<p>We have not done much with this. Need to build a proactive relationship with media. For example, be sure talking points are available for state agency staff in regional offices (WDFW, WSDOT).</p> <p>More work on this item is needed.</p>



<ul style="list-style-type: none"> <li>▪ Part of the media strategy should include a means to tell the story of fish passage in advance of construction season, when fish passage projects are more visible. When “dirt is being moved” the media will pay more attention.</li> </ul>	
<p>10) ENGAGE WITH NATIONAL ORGANIZATIONS AND FEDERAL AGENCIES COMMITTED TO FISH PASSAGE</p> <ul style="list-style-type: none"> <li>▪ Set the stage for possible capacity requests at a national level.</li> <li>▪ Engage national groups in the near-term. Identify ways that they can advise or support FBRB.</li> </ul>	<p>More work is needed here. We should reach out to key federal agencies. For example, US FWS has a grant program related to barrier removal; we should connect with the regional office in Lacey and find out more (Stacy will make that contact).</p>
<p>11) DESIGNATE A LEAD BOARD MEMBER TO GUIDE IMPLEMENTATION OF THE COMMUNICATIONS PLAN AND OUTREACH STRATEGIES</p> <ul style="list-style-type: none"> <li>▪ Association of Washington Cities board representatives have volunteered to lead the development and implementation of legislative strategy, and it may make sense to have an additional lead from the board or support staff to ensure timely completion and implementation of communications priorities.</li> </ul>	<p>Carl Schroeder has actively participated in this subcommittee. Neil Aaland has some time available through his contract with WDFW to support the subcommittee.</p>