Fish Passage Barrier Removal Board

Soliciting Local Input into Strategy

July 2015

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Request for input from Salmon Recovery Regions

Request to Salmon Recovery Regions to submit priority watersheds and fish passage barriers:

Information needed on where to start restoring ecosystem connectivity

July 14, 2015

Background

In 2014, legislation was passed that directed the creation of the Fish Barrier Removal Board (FBRB). The FBRB is tasked with developing a strategic approach and schedule that identifies and prioritizes the projects necessary to eliminate transportation-related fish passage barriers for anadromous salmonids. The goal is to maximize anadromous fish access to high quality habitat through a coordinated strategy that prioritizes opportunities to correct fish barriers (single or multiple) across a watershed, including the barriers located furthest downstream. While many fish passage investments have already been made, thousands of barriers remain.

To develop a systematic approach to optimize barrier removals, the FBRB is interested in utilizing the state's existing salmon recovery framework developed under the 1999 Statewide Strategy to recover salmon while coordinating with existing salmon recovery programs. This effort is not an attempt to reshuffle existing resources, but to create a coordinated strategy that can leverage new funding sources to address fish passage issues throughout the state. The FBRB understands and has discussed the need for a program that includes watershed barrier inventories, landowner outreach, feasibility and design, and construction funding.

The FBRB would like local input in the development of a statewide fish passage program with a regional framework. The FBRB needs assistance on determining where to focus initial efforts. The information submitted will be analyzed by WDFW and then used to create a priority list of projects that will be approved by the FBRB. The goal is to submit a list of projects as a funding request package to the legislature in the 2017-19 biennium (see flow chart page 5).

Approach: Watershed and Coordination Pathways

The FBRB is developing two funding pathways for correcting fish passage barriers across the state. The Watershed pathway focuses on high priority watersheds in each region and expedites the removal of multiple barriers within those watersheds. Through this funding pathway, high priority barriers will be identified and corrected throughout selected priority watersheds. Barriers lowest in the selected watersheds will be corrected first. The objective of this pathway is to have a focused approach, where investments can be directed in high quality watersheds where barrier removal will have the highest contribution to salmon and steelhead recovery.

The Coordinated Project pathway focuses on priority barrier removal projects adjacent to other funded or recently completed fish passage projects. These opportunistic projects may occur inside or outside of the watersheds selected in the Watershed pathway. An example of this pathway would be to prioritize a local government barrier and a private barrier downstream of a recently completed or funded WSDOT fish passage project.

REQUEST TO RECOVERY REGIONS

Watershed Approach

The FBRB is seeking the expertise and local knowledge of the salmon recovery regions for correcting fish barriers in anadromous streams. The FBRB is requesting that each recovery region nominate a watershed, within their coverage area, where fish passage projects would open high quality habitat and have the largest benefit for salmon and steelhead recovery. Nominated watersheds should benefit depressed, threatened, or endangered stocks, and/or support tribal treaty rights. Watersheds with healthy anadromous runs, or runs with an undefined stock status, should be considered if high quality habitat can be made accessible through barrier removals. These priority watersheds will help the FBRB determine how to get the most value from future project investments. Please explain why the watershed is a good candidate for fish passage restoration. If nominating multiple watersheds, please list in prioritized order.

Considerations for Watershed pathway nominations:

- Amount of quality steelhead and coho salmon rearing habitat within the nominated watershed
- Limited amount of impervious surfaces within the watershed
- Minimal amounts of water temperature concerns, as identified by Washington State Department of Ecology's 303 D and 305 B listings, within the watershed
- High diversity of barrier ownership types: state, local, private, tribal, etc.
- What critical anadromous populations would benefit most from fish passage projects within the recovery region?
- Barrier density – number of barriers per stream mile
- Consider the Viable Salmon Population criteria (see questions below)
    - Are the parent populations classified as "primary" or otherwise considered essential to recovery of the ESU?
    - To what extent would the restored watershed contribute to achieving viable salmonid population(s), relative to other populations?
    - Spatial structure - does the watershed have potential to be a major or minor spawning area? Would it contribute a meaningful area for expanded distribution and reduced population risk due to increased spatial structure?
    - Abundance - Will the barrier restoration add a meaningful quantity of habitat to the population and to what extent might it contribute to improvements in abundance? Quantify the relationship of the fish potential in the restored watershed to the whole population (e.g., stream area, intrinsic potential, EDT or other life cycle model outputs).
    - Productivity - Is the quality of the habitat in the restored watershed worse than, similar to, or better than the quality of habitat in the rest of the population?
    - Diversity - Will the expanded distribution result in reduced risk for diversity? (e.g., unique habitat types, ecoregions, flow or temperature regimes that allow unique life history pathways to be successful).

The FBRB will consider additional factors presented by the recovery regions in support of their nomination. Please remember that this input is at a watershed scale. We intend to have future discussions on individual streams and barriers once priority watersheds are determined.

Coordinated Project Pathway

In addition to nominating priority watersheds for the Watershed Pathway, the FBRB requests that recovery regions consult with their regional partners to identify high priority barrier removal projects adjacent to other funded or recently completed (within 5 years) fish passage projects. The following considerations will be used to review Coordinated Project nominations:

- Habitat quality
- Benefit to steelhead and coho salmon
- Benefit to other anadromous species
- Project readiness
- Cost/benefit
- Linear gain
- Barrier owner diversity
- Barrier owner willingness
- Barrier corrections completed upstream and downstream of the targeted project

Please provide a prioritized project list for the Coordinated Project pathway. For consideration, the project list must include:

- GPS coordinates in decimal degrees of the target site[3] and nominated barrier(s)
- WDFW Fish Passage Diversion Screening Inventory (FPDSI) database Site ID[4], if applicable
- Photos of target site and nominated barrier(s)
- Ownership type (state, local, private, etc.) of target site and nominated barrier(s)
- Number of downstream barriers in watershed
- Description of 'project readiness' of nominated barriers including any scoping, design, barrier owner willingness, etc.
- Species use

[3] 'target site' is the funded or recently completed fish passage project
[4] link to FPDSI data - http://wdfw.wa.gov/conservation/habitat/fish_passage/data_maps.html

The WDFW is available to work directly with recovery regions to share existing barrier information from the WDFW Fish Passage Database and answer questions if needed.

For questions contact: Cade Roler – Cade.Roler@dfw.wa.gov or 360-902-2351

Please nominate a priority watershed and a list of prioritized coordinated projects by August 14, 2015 and provide a brief justification of your nominations. Please submit nominations electronically to WDFW at FBRB@dfw.wa.gov. WDFW will do a first assessment of your submitted nominations starting August 14th.

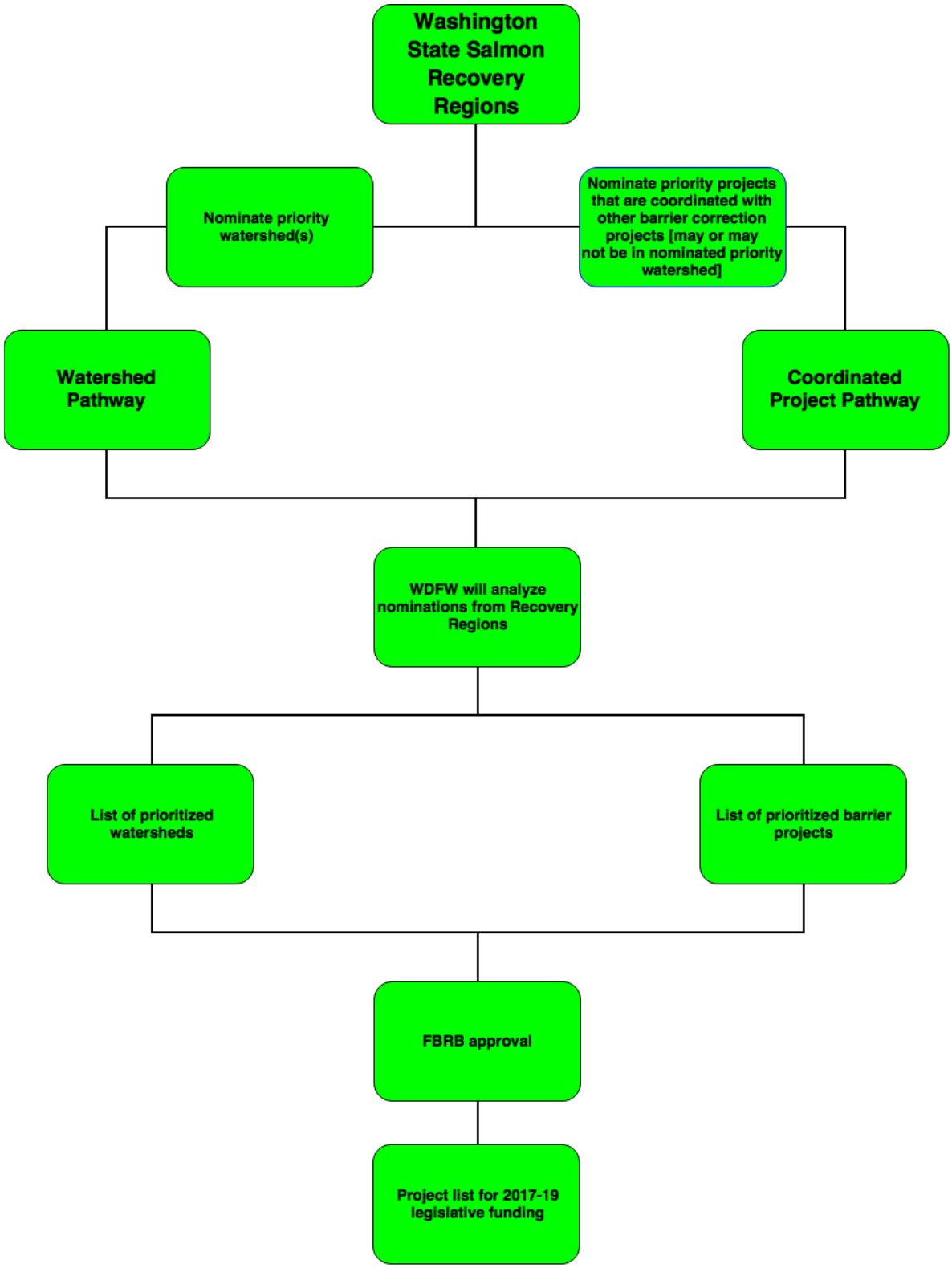
Useful links:

FBRB Homepage: http://wdfw.wa.gov/about/advisory/fbrb/
WDFW Fish Passage Homepage: http://wdfw.wa.gov/conservation/habitat/fish_passage/
SalmonScape: http://apps.wdfw.wa.gov/salmonscape/
Department of Ecology Water Quality Interactive Map: http://www.ecy.wa.gov/programs/wq/303d/index.html

To locate fish passage projects:

Aquatic Protection Permitting System (APPS): https://www.govonlinesaas.com/WA/WDFW/Public/Client/WA_WDFW/Shared/Pages/Main/Login.aspx
Recreational and Conservation Office (RCO) PRoject Information SysteM (PRISM): http://www.rco.wa.gov/ prism_app/ about_prism.shtml
WSDOT Annual Progress Reports - http://www.wsdot.wa.gov/Projects/FishPassage/

Flowchart representing nomination process for both FBRB Pathways



Request for input from Puget Sound Lead Entities

Request to Puget Sound Lead Entity Organizations to submit priority watersheds and fish passage barriers:

Information needed on where to start restoring ecosystem connectivity

July 15, 2015

Background

In 2014, legislation was passed that directed the creation of the Fish Barrier Removal Board (FBRB). The FBRB is tasked with developing a strategic approach and schedule that identifies and prioritizes the projects necessary to eliminate transportation-related fish passage barriers for anadromous salmonids. The goal is to maximize anadromous fish access to high quality habitat through a coordinated strategy that prioritizes opportunities to correct fish barriers (single or multiple) across a watershed, including the barriers located furthest downstream. While many fish passage investments have already been made, thousands of barriers remain.

To develop a systematic approach to optimize barrier removals, the FBRB is interested in utilizing the state's existing salmon recovery framework that was developed under the 1999 Statewide Strategy to recover salmon while coordinating with existing salmon recovery programs. This effort is not an attempt to reshuffle existing resources, but to create new funding sources to address fish passage issues throughout the state. The FBRB understands and has discussed the need for a program that includes watershed barrier inventories, landowner outreach, feasibility and design, and construction funding.

The FBRB would like local input in the development of a statewide fish passage program with a regional framework. The FBRB needs assistance on determining where to focus initial efforts. The information submitted will be analyzed by WDFW and then used to create a priority list of projects that will be approved by the FBRB. The goal is to submit a list of projects as a funding request package to the legislature in the 2017-19 biennium (see flow chart page 5).

Approach: Input needed to develop Watershed and Coordination Pathways

The FBRB is developing two funding pathways for correcting fish passage barriers across the state. The Watershed pathway focuses on high priority watersheds in each region and expedites the removal of multiple barriers within those watersheds. Through this funding pathway, high priority barriers will be identified and corrected throughout selected priority watersheds. Barriers lowest in the selected watersheds will be corrected first. The objective of this pathway is to have a focused approach, where investments can be directed in high quality watersheds where barrier removal will have the highest contribution to salmon and steelhead recovery.

The Coordinated Project pathway focuses on priority barrier removal projects adjacent to other funded or recently completed fish passage projects. These opportunistic projects may occur inside or outside of the watersheds selected in the Watershed pathway. An example of this pathway would be to prioritize a local government barrier and a private barrier downstream of a recently completed or funded WSDOT fish passage project.

REQUEST TO LEAD ENTITIES

Watershed Pathway

The FBRB is seeking the expertise and local knowledge of lead entities for correcting fish barriers in anadromous streams. The FBRB is requesting that each lead entity nominate a watershed at the HUC 10 scale[1], within their coverage area, where fish passage projects would open high quality habitat and have the largest benefit for salmon and steelhead recovery. Nominated HUC 10s should benefit depressed, threatened, or endangered stocks, and/or support tribal treaty rights. HUC 10s with healthy anadromous runs, or runs with an undefined stock status, should be considered if high quality habitat can be made accessible through barrier removals. These priority watersheds will help the FBRB determine how to get the most value from future project investments. Please explain why the HUC 10 is a good candidate for fish passage restoration. If nominating multiple HUC 10s, please list in prioritized order.

The nominations will be reviewed by the FBRB and evaluated based on the following criteria:

- Amount of high quality steelhead and coho salmon rearing habitat within the nominated HUC 10
- Limited amount of impervious surfaces within the entire watershed[2]
- Minimal amounts of water temperature concerns, as identified by Washington State Department of Ecology's 303 D and 305 B listings, within the entire watershed[2]
- High diversity of barrier ownership types: state, local, private, tribal, etc.

The FBRB will consider additional factors presented by the lead entities in support of their nomination. Please remember that this input is at a HUC 10 scale. The FBRB intends to have future discussions on individual streams and barriers once HUC 10s are determined.

[1] USGS link to Hydrologic Units: https://water.usgs.gov/GIS/huc.html

[2] Includes any other HUC 10s that are part of the watershed

Coordinated Project Pathway

In addition to nominating priority HUC 10s for the Watershed pathway, the FBRB requests that lead entities consult with their regional partners to identify high priority barrier removal projects adjacent to other funded or recently completed (within 5 years) fish passage projects. The following considerations will be used to review Coordinated Project pathway nominations:

- Habitat quality
- Benefit to steelhead and coho salmon
- Benefit to other anadromous species
- Project readiness
- Cost/benefit
- Linear gain
- Barrier owner diversity
- Barrier owner willingness
- Barrier corrections completed upstream and downstream of the targeted project

Please provide a prioritized list for the Coordinated Project pathway. For consideration, the project list must include:

- GPS coordinates in decimal degrees of the target site[3] and nominated barrier(s)
- WDFW Fish Passage Diversion Screening Inventory (FPDSI) database Site ID[4], if applicable
- Photos of target site and nominated barrier(s)
- Ownership type (state, local, private, etc.) of target site and nominated barrier(s)
- Number of downstream barriers in watershed
- Description of 'project readiness' of nominated barriers including any scoping, design, barrier owner willingness, etc.
- Species use

[3] 'target site' is the funded or recently completed fish passage project
[4] link to FPDSI data - http://wdfw.wa.gov/conservation/habitat/fish_passage/data_maps.html

The WDFW is available to work directly with lead entities to share existing barrier information from the WDFW Fish Passage Database and answer questions if needed.

For questions contact: Cade Roler (WDFW) – Cade.Roler@dfw.wa.gov or 360-902-2351

Please nominate a priority watershed and a list of coordinated projects by August 20, 2015 and provide a brief justification of your nominations. Please submit nominations electronically to WDFW at FBRB@dfw.wa.gov. WDFW will do a first assessment of your submitted nominations starting August 20th.

Other considerations for nominations:

- What critical anadromous populations would benefit most from fish passage projects within your region?
- Barrier density – number of barriers per stream mile
- Consider the Viable Salmon Population criteria (see questions below)
    - Are the parent populations classified as "primary" or otherwise considered essential to recovery of the ESU?
    - To what extent would the restored watershed contribute to achieving viable salmonid population(s), relative to other populations?
    - Spatial structure - does the watershed have potential to be a major or minor spawning area? Would it contribute a meaningful area for expanded distribution and reduced population risk due to increased spatial structure?
    - Abundance - Will the barrier restoration add a meaningful quantity of habitat to the population and to what extent might it contribute to improvements in abundance? Quantify the relationship of the fish potential in the restored watershed to the whole population (e.g., stream area, intrinsic potential, EDT or other life cycle model outputs).
    - Productivity - Is the quality of the habitat in the restored watershed worse than, similar to, or better than the quality of habitat in the rest of the population?
    - Diversity - Will the expanded distribution result in reduced risk for diversity? (e.g., unique habitat types, ecoregions, flow or temperature regimes that allow unique life history pathways to be successful).

Useful links:

FBRB Homepage: http://wdfw.wa.gov/about/advisory/fbrb/
WDFW Fish Passage Homepage: http://wdfw.wa.gov/conservation/habitat/fish_passage/
SalmonScape: http://apps.wdfw.wa.gov/salmonscape/
Department of Ecology Water Quality Interactive Map: http://www.ecy.wa.gov/programs/wq/303d/index.html

To locate fish passage projects:

Aquatic Protection Permitting System (APPS): https://www.govonlinesaas.com/WA/WDFW/Public/Client/WA_WDFW/Shared/Pages/Main/Login.aspx
Recreational and Conservation Office (RCO) PRoject Information SysteM (PRISM): http://www.rco.wa.gov/_prism_app/_about_prism.shtml
WSDOT Annual Progress Reports - http://www.wsdot.wa.gov/Projects/FishPassage/

Flowchart representing nomination process for both FBRB pathways