

Draft Work Plan and Purpose

For FBRB Members

AUGUST 19, 2014



Fish Passage Barrier Removal Board Tasks

In 2014, the Washington State Legislature created the Fish Passage Barrier Removal Board to develop a coordinated barrier removal strategy and provide the framework for a fish barrier grant program. The board is established by Chapter 77.95 RCW.

Below is a table documenting the legislative language with key elements and tasks for each item.

Legislation summary

Item	Legislation language	Key Elements	Tasks
1	The department shall maintain a fish passage barrier removal board. (Sec 4(1), pg7)	Establish bylaws	Agree and finalize bylaws
2	The board must be composed of a representative from the DFW, DOT, cities, counties, the governor’s salmon recovery office, tribal governments, and DNR. The representative of the DFW will serve as chair and may expand the membership of the board to representatives of other governments, stakeholders, and interested entities. (Sec 4(1), pg7)	Discuss board membership Discuss outreach and coordination	
3	The duty of the board is to identify and expedite the removal of human-made or caused impediments to anadromous fish passage in the most efficient manner practical through the development of a coordinated approach and schedule that identifies and prioritizes the projects necessary to eliminate fish passage barriers caused by state and local roads and highways and barriers owned by private parties. (Sec 4 (2a), pg7)	Main duty: to correct barriers in a coordinated approach and schedule that prioritizes projects in anadromous streams Strategies for improving data to make process as efficient Take advantage of corrected barrier projects Think about end user.	Develop a prioritization strategy for removing barriers. Discuss who is the end user and what type of tool will be useful.
4	The coordinated approach must address fish passage barrier removals in all areas of the state in a manner that is consistent with recognition that scheduling and prioritization is necessary. (Sec 4(2b), pg7)	Statewide approach in anadromous areas Suggestion to use Regional Recovery Areas (8); B. Abbott	Board will need to define what a statewide coordinated approach is.

5	The board must coordinate and mutually share information , when appropriate with other fish passage correction programs, other salmon recovery efforts, and conservation districts and RCO, and maximize the value of , other salmon recovery efforts and habitat improvements that are not primarily based on removal of barriers. (Sec 4(2b), pg7)	Coordinate with other barrier removal programs and salmon recovery efforts. Expand on barrier data	Develop a strategy for communication and coordination
6	Recommendations must include proposed funding mechanisms and methodologies to coordinate state, tribal, local and volunteer barrier efforts within each WRIA and satisfy principals in RCW 77.95.180 . (Sec 4 (2d), pg8)	The board will develop and adopt recommendations to DFW that will include proposed funding mechanisms and methods to prioritize fish barrier projects. The prioritization that will be developed must satisfy the principals in RCW 77.95.180 (Sec 2) as well as the board will consider the methods in Sec 4 (e)	Discuss the deliverable. Is it a framework? Prioritization of watersheds? Is the product a report? A project list? Etc. Discuss timing of deliverable.
7	To the degree practicable, the board must utilize the database created in RCW 77.95.170 and info on fish barriers developed by conservation districts to guide methodology development.	Board will utilize WDFW fish passage database, as well as other databases	WDFW will present the fish passage database.
8	Board may consider recommendations by interested entities from the private sector and regional fisheries enhancement groups.	Outreach to interested entities	Develop a strategy for communication
9	Nothing in Sec 2. Is intended to alter the process and prioritization methods in implementation of the forest practices rules, or FFFPP (Sec 2 (3a),p5)	Related to Board authority	
10	Nothing in Sec 2 is intended to prohibit or delay fish barriers project s undertaken by DOT or another state agency that are a component of an overall transportation project or being undertaken as a direct result of state law, federal law, or court order. (Sec 2 (3b),p5)	Related to Board authority	
11	DOT or another state agency is required to work in partnership with the fish barrier board to ensure that the scheduling, staging, and implementation of these projects are, to maximum extent practicable, consistent with the coordinated and prioritized approach adopted by the fish barrier board . (Sec 2 (3b), p5)		

12	DFW must initiate contact with USACE, NOAA, and USFWS to explore the feasibility of bundling projects under any available nationwide permits for the purpose of achieving streamlined federal permitting (Sec 7, pg 9)	No board action	
13	DFW must report back to the legislature , by Oct 31, 2016 , summarizing the information gathered and any progress made toward using the bundling concept to streamline permitting for transportation related fish barrier removal projects (Sec 7, pg 9)	DFW will report to legislature on streamline permitting, funding mechanisms, and the coordinated and prioritization approach that the board has adopted.	
14	Sec 3 discusses a grant program . Priority shall be given to project that match the principals provided in RCW 77.95.180 (Sec 3 (2), pg6)		Develop a grant program.
15	All projects subject to this section shall be reviewed and approved by the fish passage barrier removal board created in RCW 77.98.160 (Sec 3 (3), pg 6)	Board will review and approve barrier projects that are funded through a fish passage grant program	
16	WDFW must develop a barrier inventory training program. Section 3 (5b) p. 6	No board Action. Inventories should align with prioritization strategy	

Sec 1 – fish habitat enhancement project permit is not included in this table.

Prioritization/coordination strategy in legislation:

Prioritization principal (Sec 2) the board must satisfy the following:

- Maximizing opening habitat through a coordinated investment strategy, that prioritizes opportunities: to correct multiple fish barriers in whole streams rather than individual projects, coordinate with others doing barrier removals to achieve the greatest cost savings, and to correct barriers located furthest downstream.

When developing a prioritization methodology (Sec 4 e) the board must consider:

- Projects benefiting threatened and endangered stocks
- Projects providing access to available and high quality habitat
- Correcting the lowest barriers within a stream first
- Whether an existing culvert is a full or partial barrier
- Projects that are coordinated with other adjacent barrier removal projects
- Projects that address replacement of infrastructure associated with flooding, erosion, or other environmental damage.

Values/Principals of a barrier removal strategy:

Need agreement on information that the board will consider for development of a prioritization strategy/framework in order to refine a work plan.

Examples of information that could go into the development of a prioritization strategy/framework are below:

- Projects benefiting threatened and endangered stocks
 - What are the high priority watersheds? What info is needed to determine this?
 - NOAA population stock status and viability information
 - # of salmonid species
 - Intrinsic potential models
 - Regional recovery plans and their associated assessment tools (EDT, Shiraz, Intrinsic Potential, other models, professional judgment).
- Coordination with other fish barrier projects that have been completed or will be completed (opportunities to bundle).
 - Salmon recovery projects
 - RMAP – state and private timberlands
 - Federal land programs
 - Tribal programs
 - Local government programs
 - WSDOT program
 - WDFW program (inventory/database)
- Projects providing access to available and high quality habitat
 - What we know (inventory)
 - IP models
- Correcting the lowest barriers within a stream first
- Whether an existing culvert is a full or partial barrier

Key Actions/Deliverables:

- Develop and adopt a coordinated and prioritized approach to removing barriers in whole stream systems. Ensure the above principals in RCW 77.95.180 are met. (in legislation)
- Develop a communication strategy (not in legislation as a deliverable but important for coordinating)
- Funding mechanisms (in legislation)
 - Possible grant program
- Review and approve of projects to move forward for funding (not in legislation as a deliverable but identified in Sec 3)

Key questions for Board discussion:

- How are we going to develop a coordinated and prioritized approach?
 - a. Discuss approaches
- What does the product look like?
- Prioritizing
 - a. individual barriers to prioritizing stream systems
 - b. Maximizing efficiencies verses salmon recovery

DRAFT

Fish Passage Barrier Removal Board

Purpose

Mission

The mission of the Fish Passage Barrier Removal Board is to protect and restore anadromous salmonid species, and other aquatic organisms, in Washington by promoting collaboration among public and private sectors for fish passage improvement projects and programs.

Goal

The goal of the Board is to restore connectivity of freshwater habitats throughout the historic range of anadromous fish using a coordinated approach.

Values

The board will ensure that the processes to identify, prioritize and fund projects are based on maximizing opening high quality habitat through a coordinated investment strategy, that prioritizes opportunities. This investment strategy values (1) opening high quality salmon habitat that can contribute to salmonid recovery, (2) coordinate with others doing barrier removals to achieve the greatest cost savings, and (3) correct barriers located furthest downstream.

To achieve the mission, goal, and values the Board will:

- Improve coordination of existing fish passage programs across jurisdictions to improve the timeliness and cost-effectiveness of fish passage efforts.
- Facilitate collaboration, coordination, and communication among state, federal and local agencies, tribes, restoration contractors, landowners and other interested stakeholders on fish passage improvement programs and projects.
- Expedite implementation of on-the-ground projects by identifying and addressing institutional barriers.
- Educate and increase the public and agency awareness of fish passage issues to develop support for solving problems and preventing new ones.
- Seek funding sources for fish passage projects within Washington and administer a strategic funding program to further the Board's mission once funding is secured.

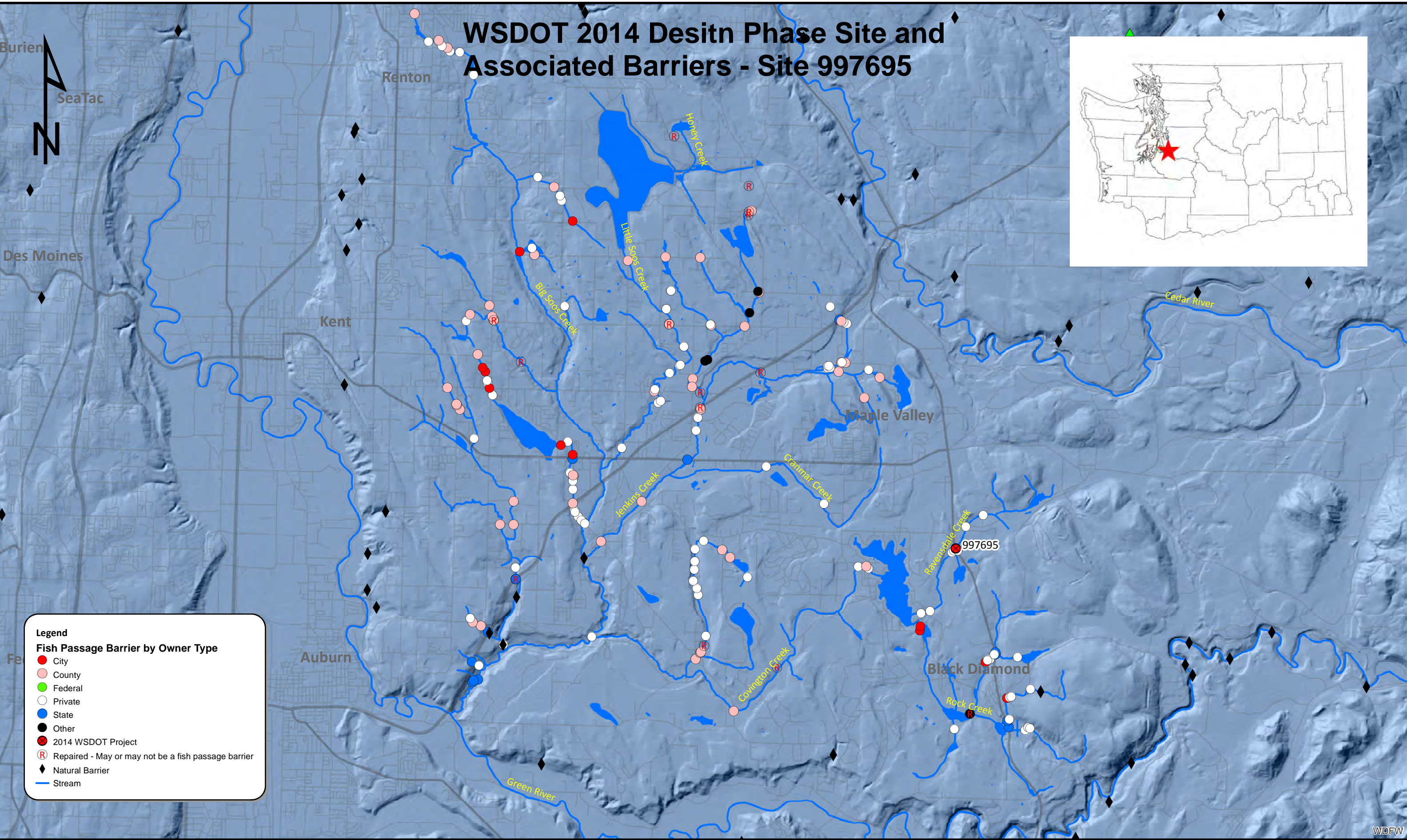
Example Barrier Maps for Proof of Concept Discussion

For FBRB Members

AUGUST 19, 2014



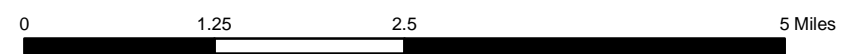
WSDOT 2014 Desitin Phase Site and Associated Barriers - Site 997695



Legend

Fish Passage Barrier by Owner Type

- City
- County
- Federal
- Private
- State
- Other
- ⊗ 2014 WSDOT Project
- Ⓜ Repaired - May or may not be a fish passage barrier
- ◆ Natural Barrier
- Stream

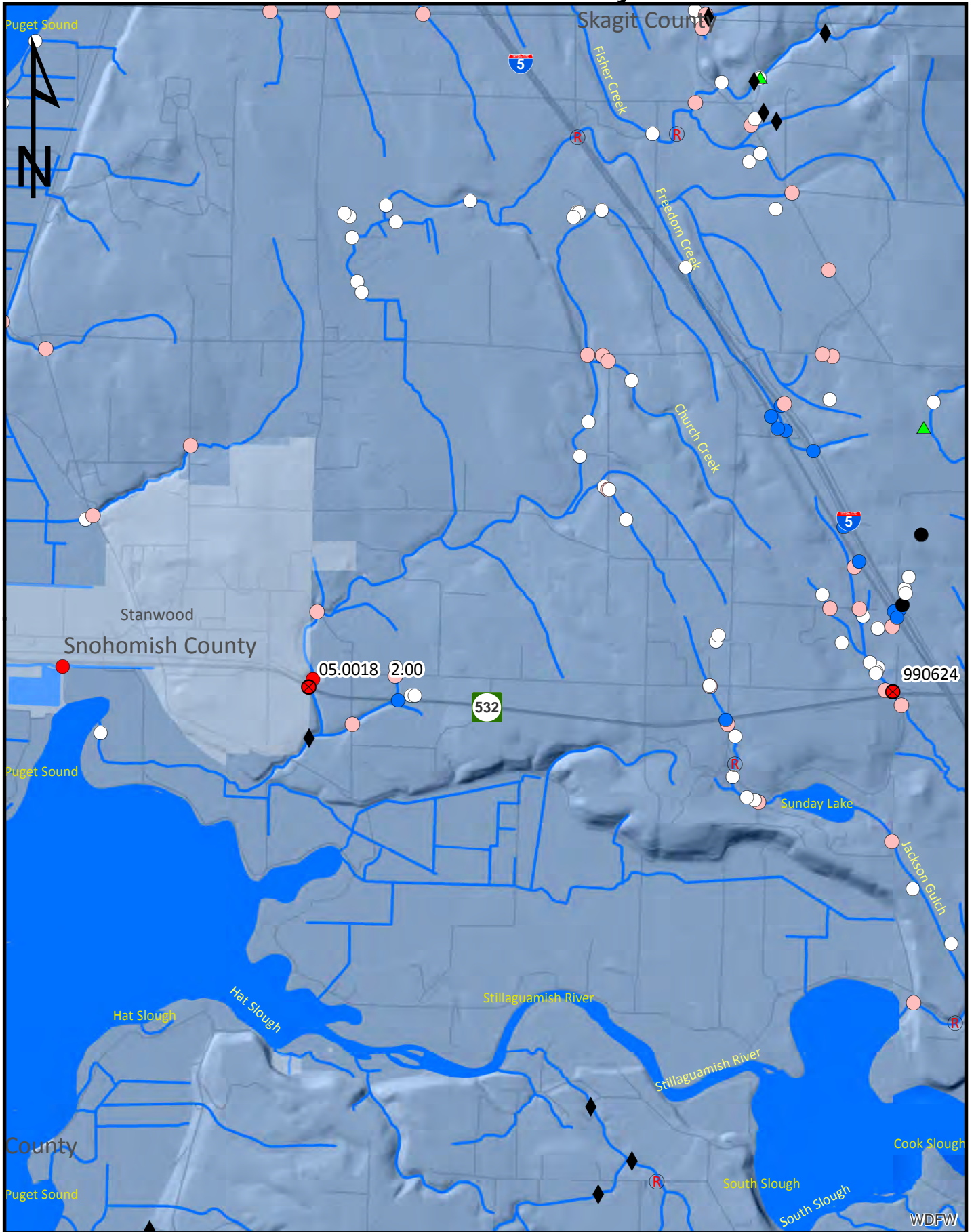


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Data Sources: WDFW Fish Passage and Diversion Screening Inventory database (FPDSI), NWIFC SH IP 24K, DNR ROPA.CULVERT.

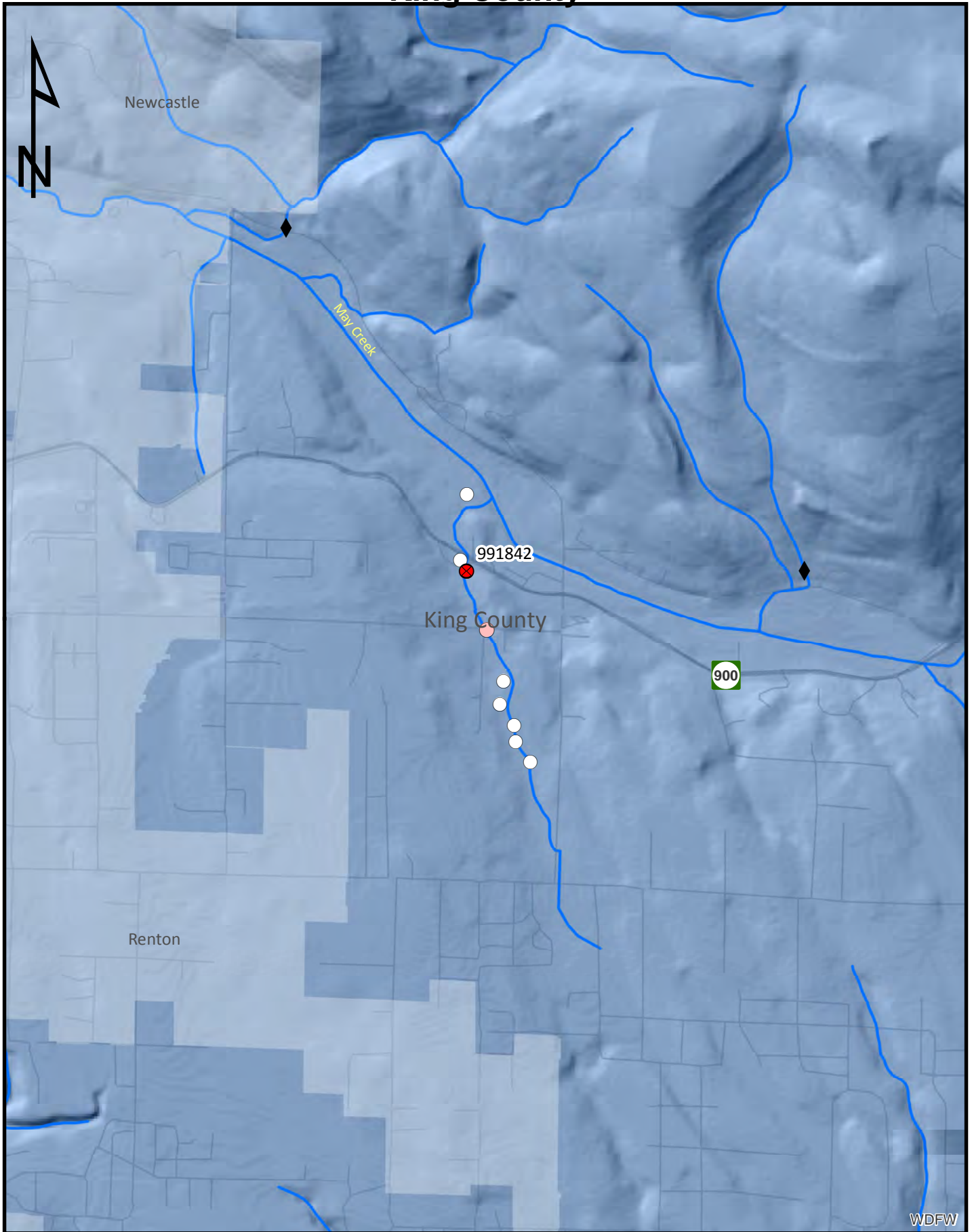
WDFW

Site 05.0018 2.00 WRIA 05.0018 Church Cr, trib to Stillaguamish R Snohomish County

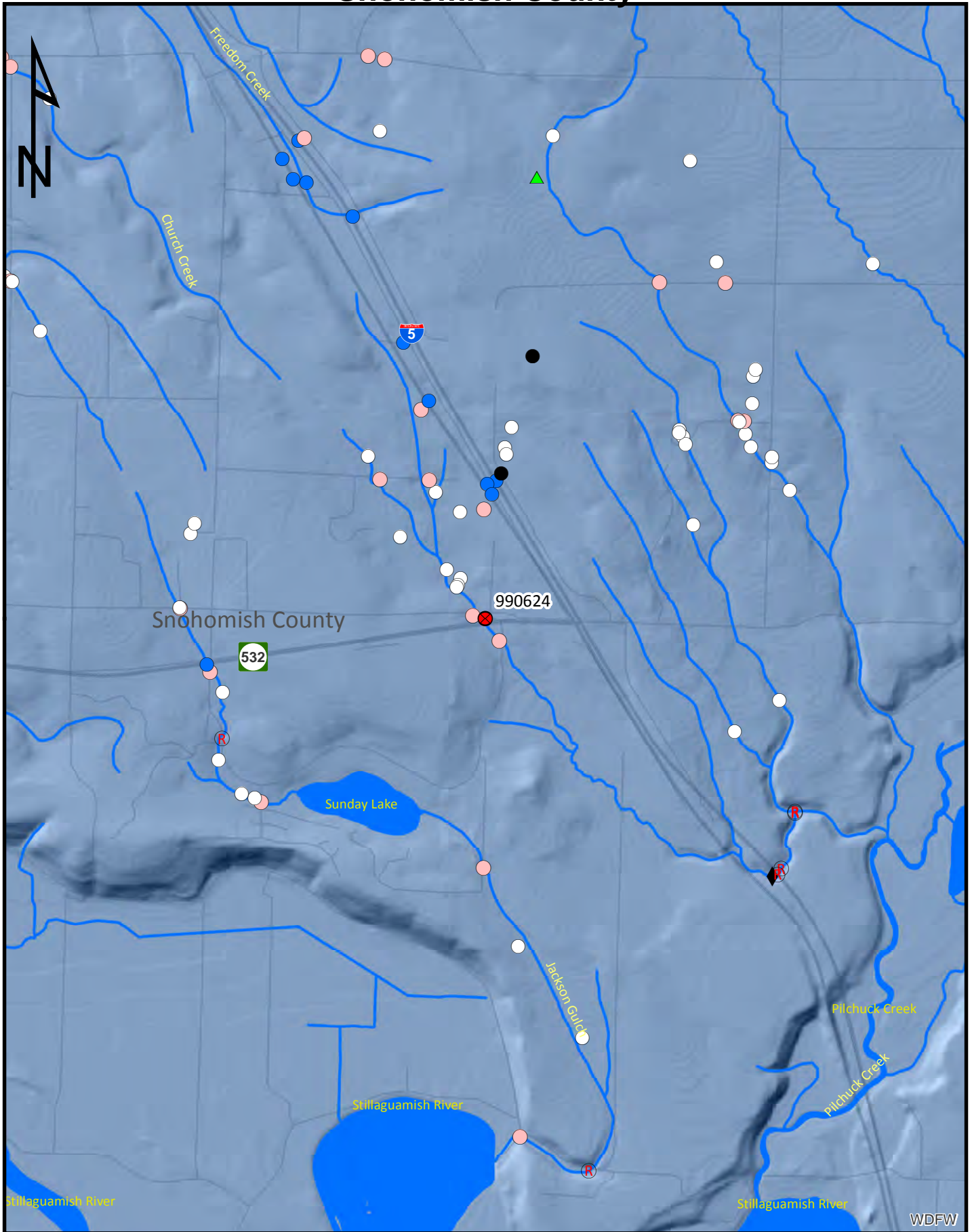


0 0.5 1 2 Miles

Site 991842 WRIA 08.0288
Green Cr, trib to May Cr
King County

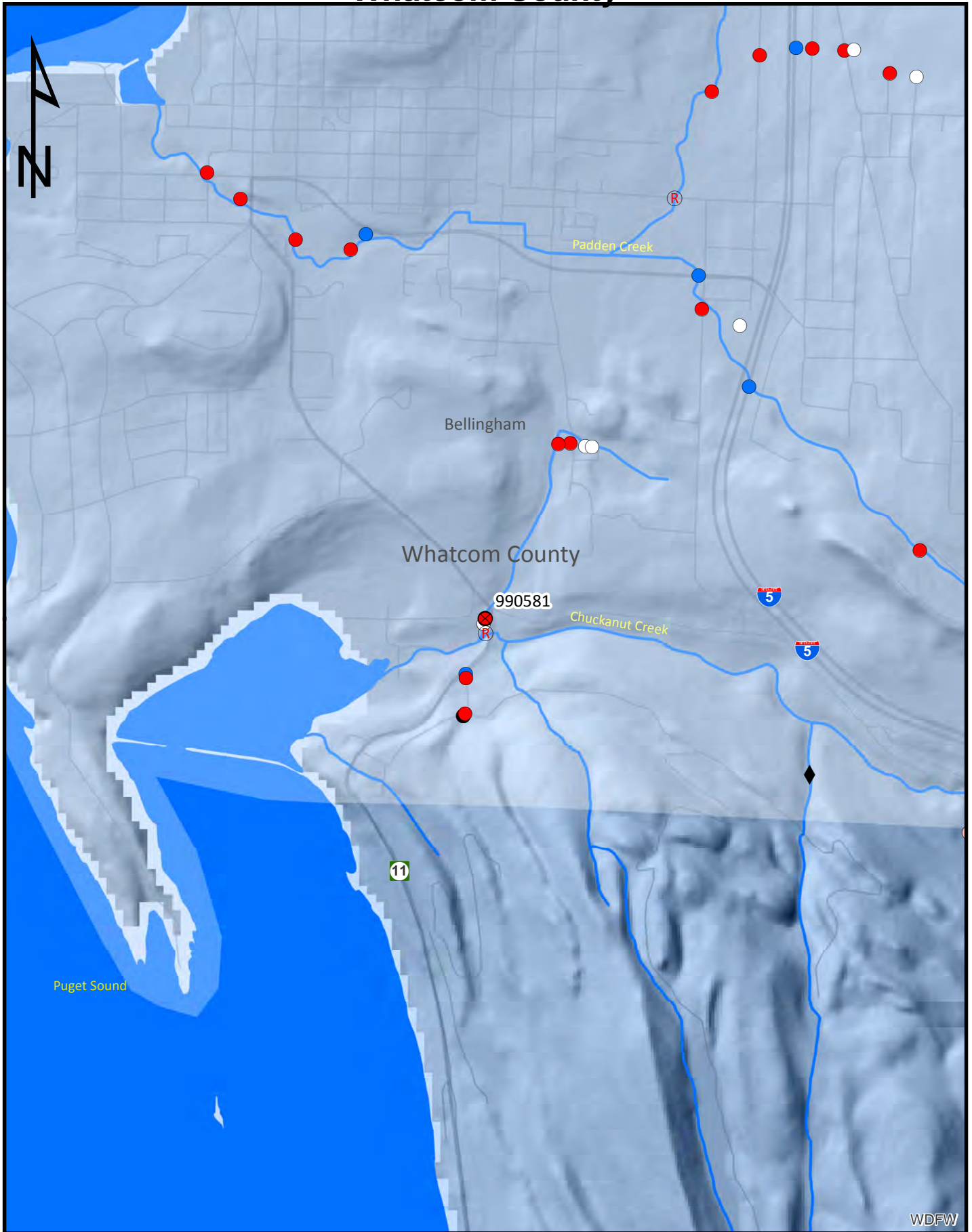


Site 990624 WRIA 05.0065
Secret Cr, trib to Pilchuck Cr
Snohomish County



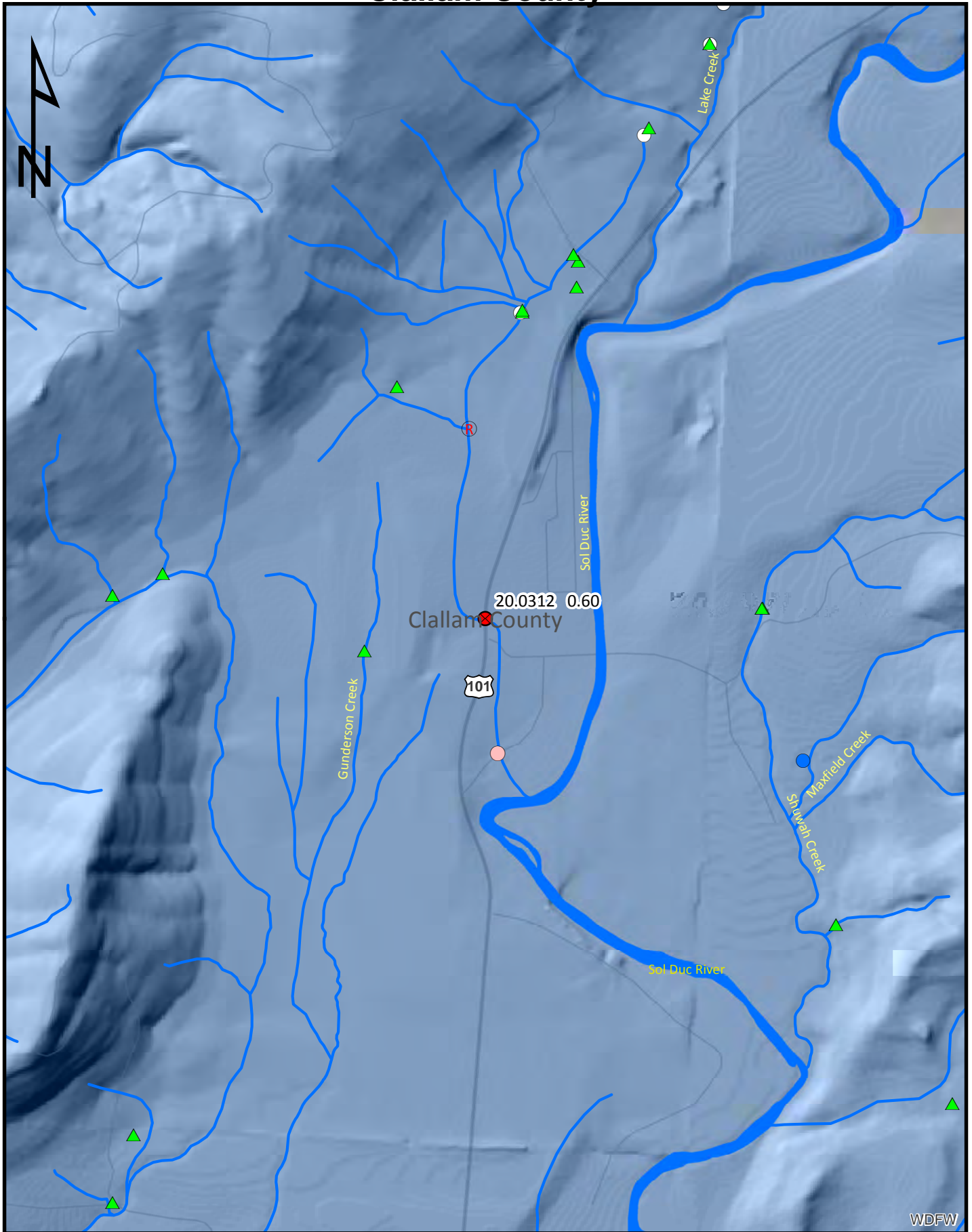
0 0.25 0.5 1 Miles

Site 990581 WRIA 01.0627
unnamed, trib to Chuckanut Cr
Whatcom County



0 0.25 0.5 1 Miles

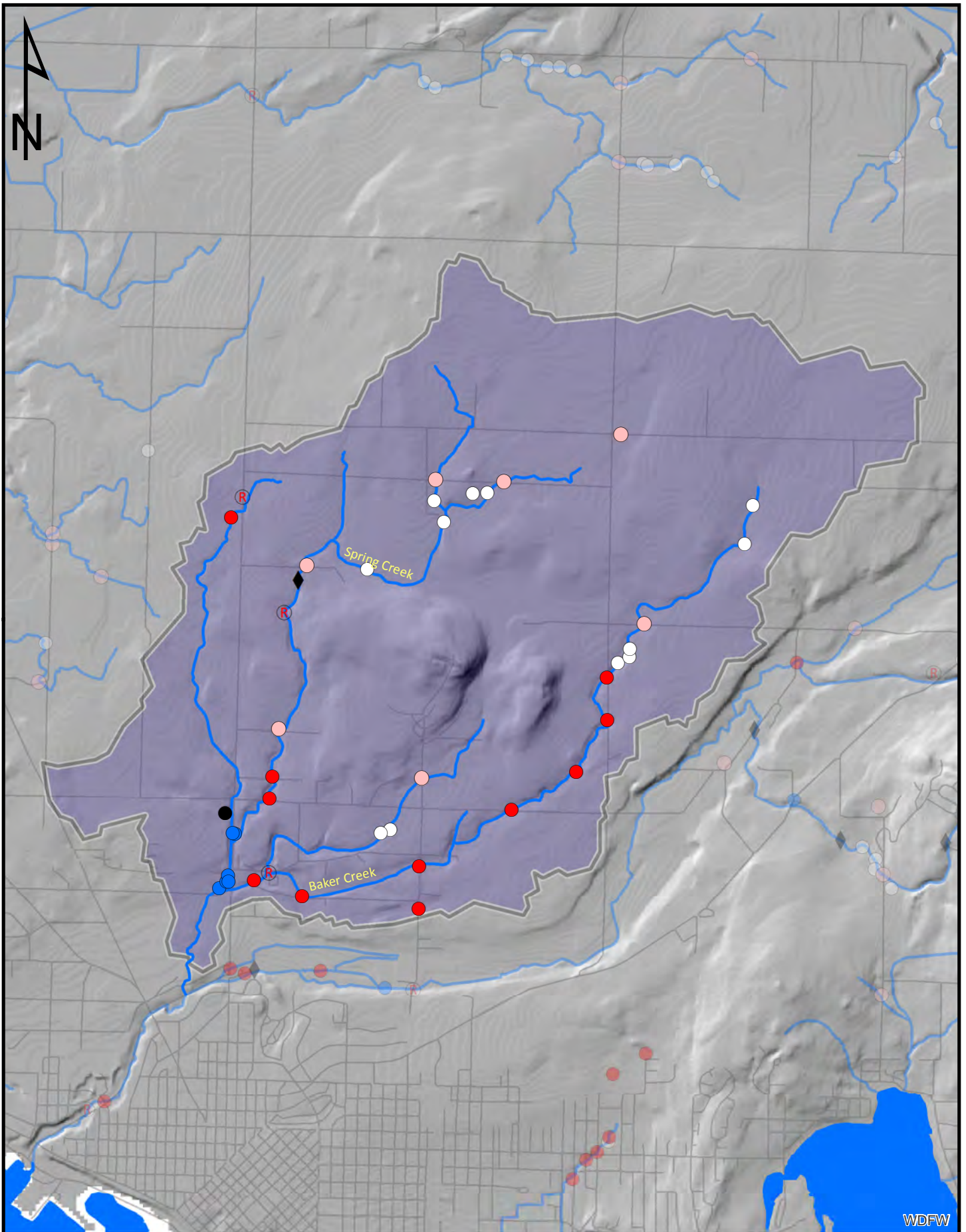
Site 20.0312 0.60 WRIA 20.0312
Swanson Cr, trib to Soleduck R
Clallam County



0 0.25 0.5 1 Miles

WDFW

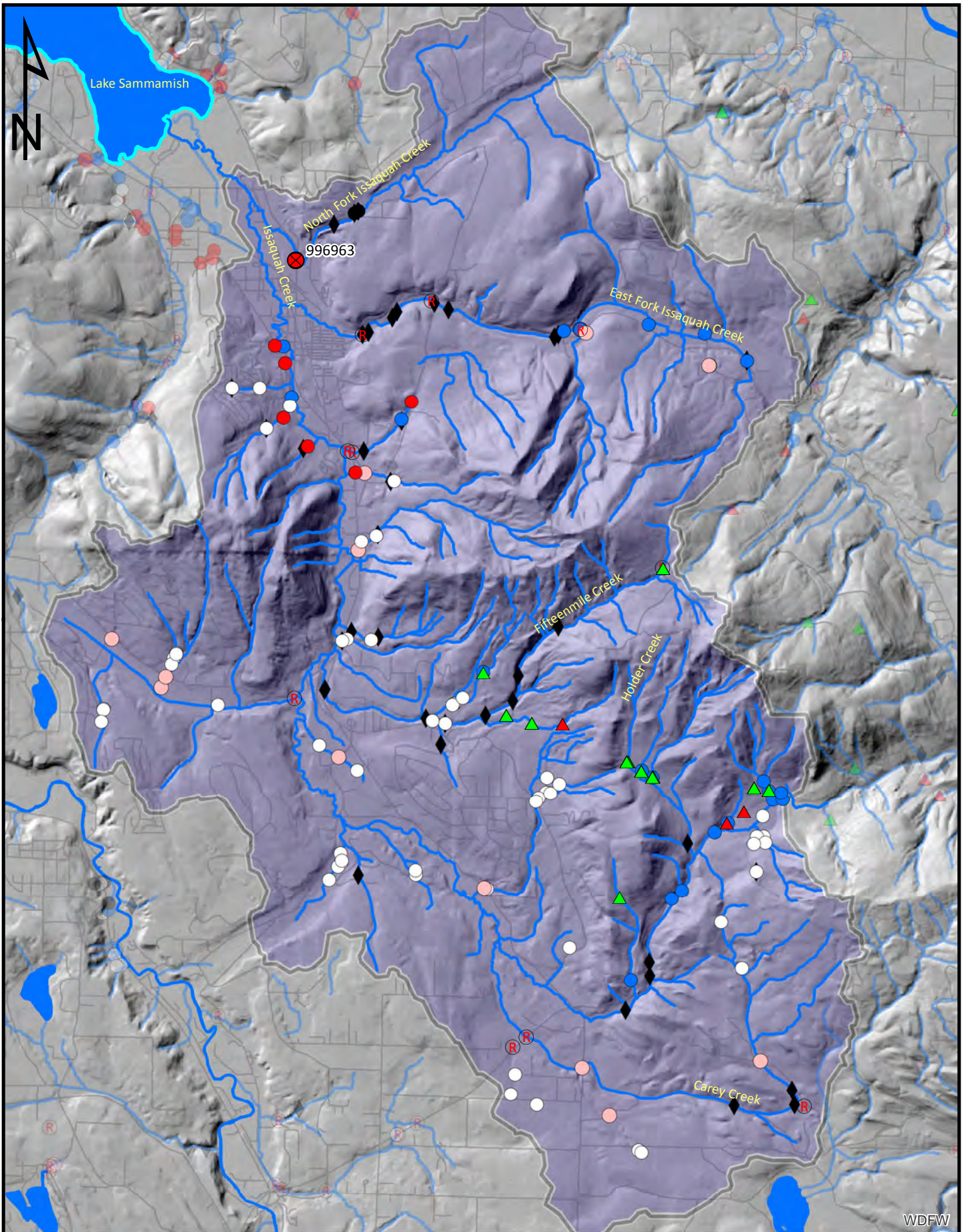
Baker Creek Watershed Whatcom County



0 0.25 0.5 1 Miles

WDFW

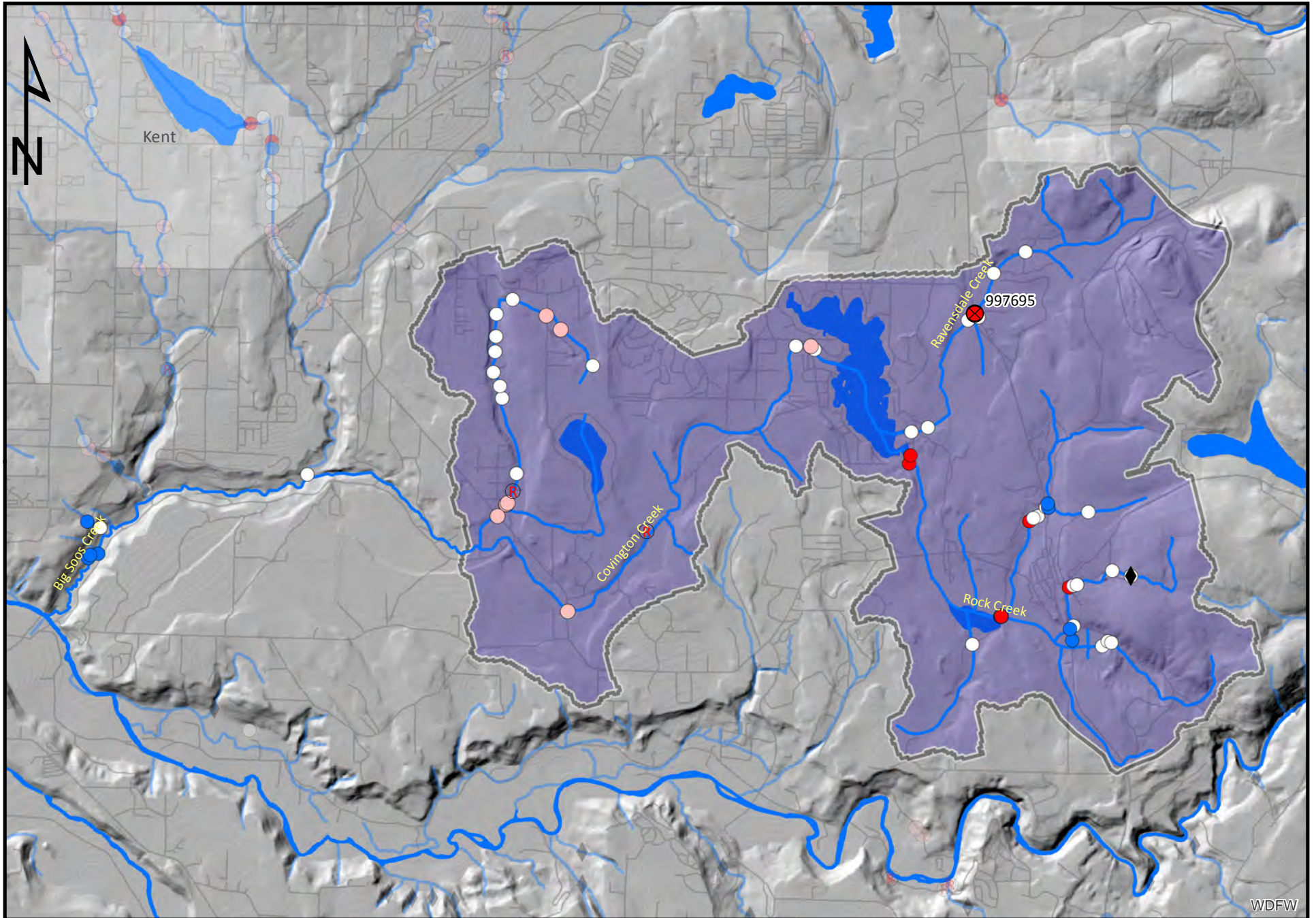
Issaquah Creek Watershed King County



0 0.5 1 2 Miles

WDFW

Covington Creek Watershed King County



Governor's Salmon Recovery Office
Presentation

Salmon Recovery
in Washington State

For FBRB Members

AUGUST 19, 2014





WASHINGTON STATE
RECREATION AND CONSERVATION OFFICE
Governor's Salmon
Recovery Office

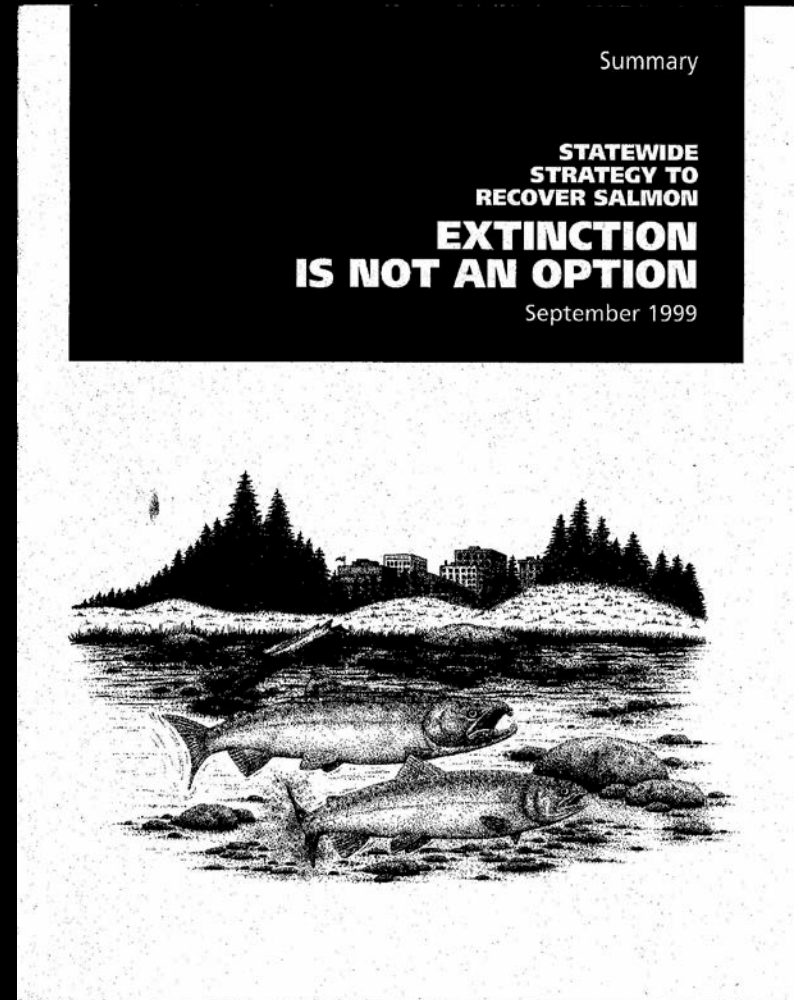
Salmon Recovery in Washington State

July 10th, 2014



Foundation of Salmon Recovery in Washington State

- Vision:
 - To restore salmon, steelhead, and trout to healthy harvestable levels and improve habitats on which fish rely.



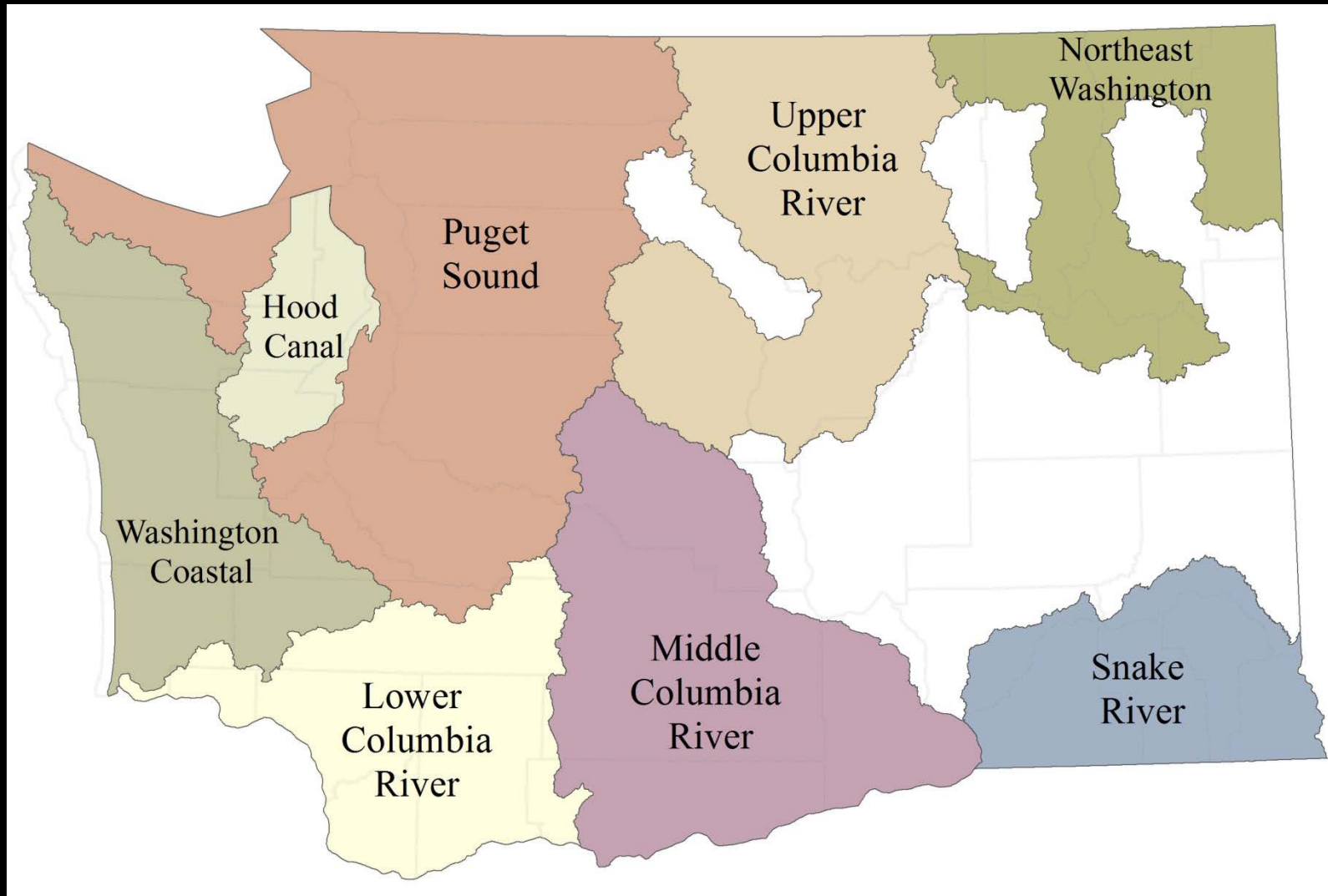
Salmon and Steelhead Species Listed under the Endangered Species Act

Bull Trout	Columbia River	Threatened
	Coastal - Puget Sound	Threatened
	Snake River	Threatened
Chinook	Lower Columbia River	Threatened
	Puget Sound	Threatened
	Snake River spring/summer run	Threatened
	Snake River fall run	Threatened
	Upper Columbia River spring run	Endangered
Chum	Hood Canal summer run	Threatened
	Lower Columbia River	Threatened
Coho	Lower Columbia River	Threatened
Sockeye	Snake River	Endangered
	Lake Ozette	Threatened
Steelhead	Lower Columbia River	Threatened
	Middle Columbia River	Threatened
	Upper Columbia River	Threatened
	Puget Sound	Threatened
	Snake River	Threatened

Guiding Principles – Salmon Recovery

- Collective vision and strategies developed locally
- Public decision making process at multiple levels
- Detailed technical review at multiple levels
- Policy review at multiple levels
- Strategic allocation of funding at the state and regional scale
- Restore natural processes in a watershed to benefit the ecosystem
- Local priorities are guided by the types of projects providing the greatest benefit
- Monitor results to inform future decisions

Recovery Regions



Salmon Recovery Plans

State of Washington's Response to ESA Listings

- Unique approach
- Embraced by the federal government
- Empowered local communities to be part of solution

Role of the Regional Organizations

- Develop and Implement the recovery plan from the bottom up – engage local communities.
- Create partnerships among governments and citizens.
- Guide recovery dollars
- Monitor results

The Result

- Six federally approved recovery plans (2005-2009)
- Coastal Washington recently developed a “sustainability plan” to ward off future listings
- Easy part has been accomplished
- Implementation of these plans is the real challenge and will remain the challenge for the next several years

What is in a Salmon Recovery Plan

- Site-specific management actions necessary for the conservation and survival of the species,
- Objective, measurable criteria which, when met, would result in a determination that the species be removed from the list (i.e., de-listing), and
- Estimates of the time required and cost to carry out those measures needed to achieve recovery.

For more information on regional organizations check out the RCO Web site at:
www.rco.wa.gov/salmon_recovery/regions/regional_orgs.shtml

So What is this going to Cost?

Study completed in March 2011 for the regional organizations

- Estimated cost of habitat-related elements of salmon recovery at the regional level is **\$5.5 billion** for 2010-2019.

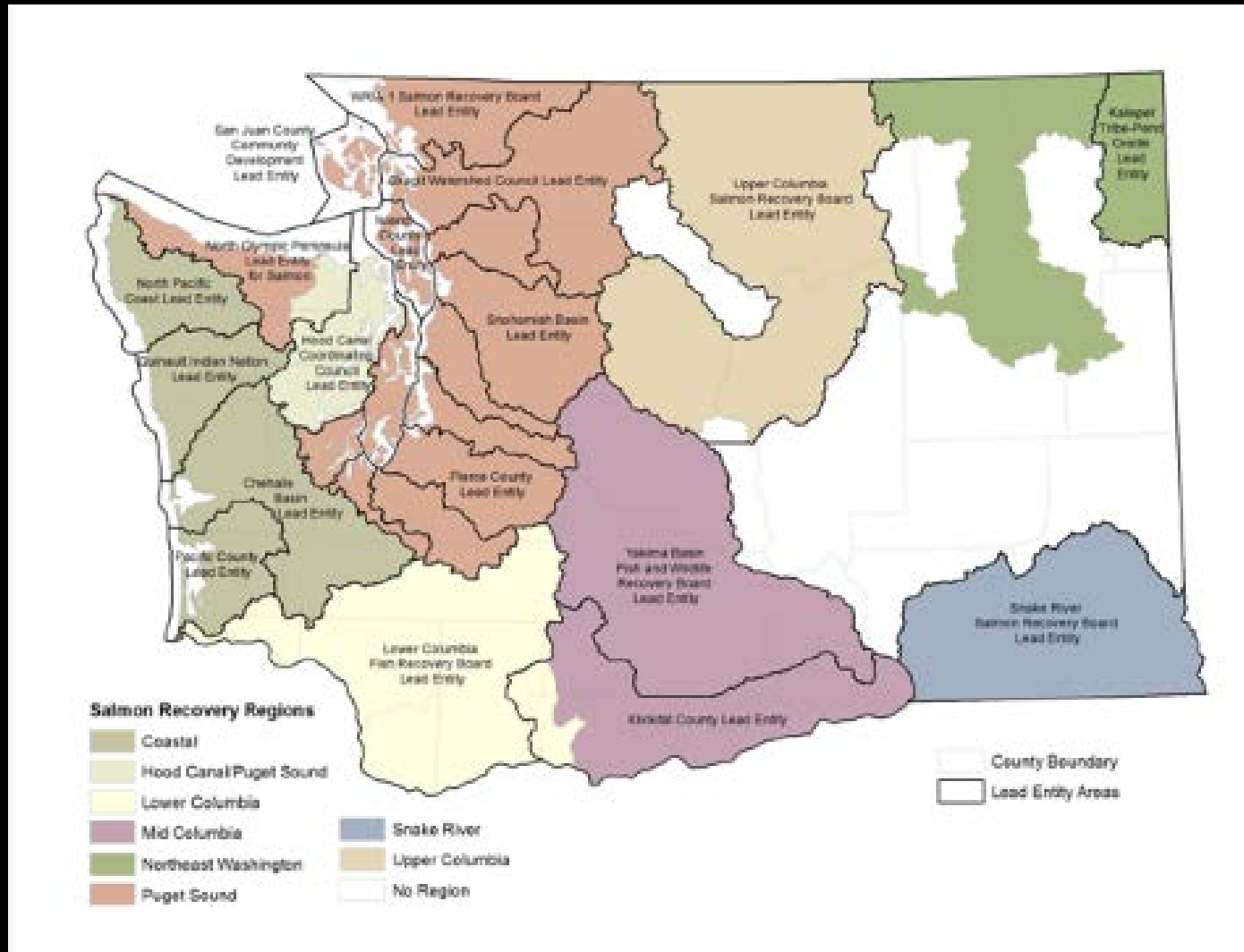
Habitat Related Elements

Category	Statewide Costs in Millions \$
Habitat Restoration	\$2,669
Acquisition/Easement	\$770
Fish Passage	\$511
Instream Flow Enhancement	\$355
Water Quality Improvements	\$407
Program Operations	\$126
Monitoring	\$533
Outreach Education	\$74
Development/Enforcement of Regulations	\$74
Total	\$5.5 Billion

For complete report please visit the RCO Web site at:

www.rco.wa.gov/documents/gсро/SalmonRecoveryFundingReport2011.pdf

Lead Entities



25 lead entities are:

- Authorized by state law
 - Created to administer the local process
 - Cities, counties, tribes, nonprofits, & others
 - 2000-2009 managed by WDFW
 - 2009 to present – managed by RCO
 - Lead Entities are funded from a combination of federal and state funds
-

A lead entity's role is to:

- Maintain a citizens committee
 - Maintain a technical committee
 - Prepare a salmon recovery strategy
 - Solicit project applications
 - Develop a habitat work schedule
 - Submit a list of projects to the SRFB and Region for funding
-

Salmon Recovery Funding Board



- Established 1999 – Salmon Recovery Act
- Mission:
 - Support salmon recovery by funding habitat protection and restoration projects, and related programs and activities that produce sustainable and measurable benefits for fish and their habitat.

SRFB Funding

- Pacific Coastal Salmon Recovery Fund (PCSRF)
 - Monitoring requirement: 10%
- State capital funds
 - SRFB grant program
 - Puget Sound Acquisition and Restoration fund
- State operating funds

SRFB Grant Program

- Eligible Applicants
 - Cities
 - Counties
 - Non-profits
 - State agencies
 - Private landowners
 - Conservation districts
 - Native American Tribes
 - Special purpose districts
 - Regional fisheries enhancement groups



Project Categories

- Acquisition
- In-stream Habitat
- Floodplain
- Riparian
- Estuarine & Marine Nearshore
- Assessment & Design
- Passage



SRFB Review Panel

- Project site visits
- Complete individual review forms
- Meet with lead entities and regions
- Contribute to funding report to SRFB
- Review project “conditions” and amendment requests on occasion.
- Process improvements



SRFB – Passage Projects 2000-2014

- 326 passage projects funded
- \$60.4 million invested
- Average project cost \$185,353
- Miles opened – 1,337.9
- Average miles per project: 4.10

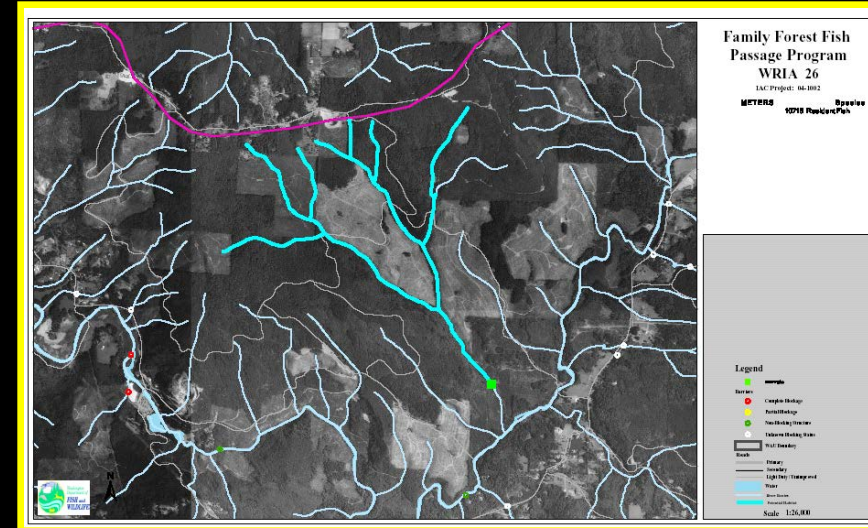
Inventory Projects

- 25 Inventories funded
- \$4.5 million invested
- Average cost \$178,986

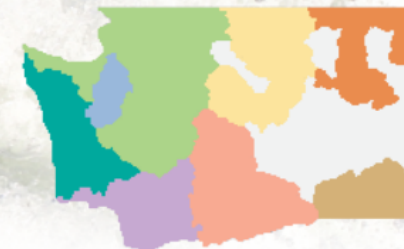


Family Forest Fish Passage Program

- Three Agency Program
- Since 2003 – 339 barriers corrected
- Cost - \$29.5 million
- Average cost \$87,020
- 762 miles opened
- Average miles opened per project 2.24



State of Salmon in Watersheds 2012 Report



Washington State

Home State Regions Monitoring Indicators Successes and Challenges Conclusions

Home State

Is Salmon Recovery

The short answer is... of more than a decade... populations.

Washington State... near extinction. For... come together to fix... once plentiful salmon...

They've torn down... shorelines, and re... again. These effort... waterways salmon...



2012

State of Salmon
in Watersheds
Executive Summary



and reconnecting the many branches of the state's... back again. See [Snapshots of Success](#).

Salmon are responding and returning to Washington waters in greater numbers in many areas around the state. See [Are Wild Salmon Increasing in Numbers?](#)

Washingtonians still face many challenges before declaring victory. In some areas of the state, growth and development still damage

Online and Printed Executive Summary

<http://stateofsalmon.wa.gov/>

Habitat Work Schedule

- Project Coordination and sequencing
- Data system to track, plan, and communicate progress
- Displays how recovery actions fit together and where opportunities are
- 9,895 project in the system

<http://hws.ekosystem.us>

Habitat Work Schedule
Tracking salmon recovery throughout Washington State

Home
About HWS
Lead Entities
Project Map
Search
Publications
Training and Support
Effectiveness Monitoring
Hot Topics
Sponsors
Washington Department of Fish & Wildlife
U.S. Fish & Wildlife Service

Lead Entity Map
Click on the watershed that you are interested in

Lead Entity Organizations
Grays Harbor County | Green/Duwamish Watershed - WRIA 9 | Hood Canal Coordinating Council | Klickitat County | Lower Columbia Fish Recovery Board | Mason Conservation District | Nisqually River Salmon Recovery | North Olympic Peninsula LE for Salmon | North Pacific Coast | Pacific County Region | Pend Oreille | Pierce County | Quinalt Indian Nation | San Juan County - WRIA2 | Skagit Watershed Council | Snake River Salmon Recovery Board | Snohomish River Basin | Stillaguamish | Thurston Conservation District | Upper Columbia | West Sound Watersheds Council | WRIA 1 Salmon Recovery Board | WRIA 6 - Island County | WRIA 8 | Yakima Basin Fish and Wildlife

World Topo Map
Layers Multi Level

- Projects
 - Acquisition Projects (Washington)
 - Acquisition/Restoration (Combination)
 - Non-Capital Projects (Washington)
 - Restoration Projects (Washington)
- Places
 - PSP Regional salmon recovery report
- Other Layers
 - Salmon Recovery Boundaries
 - Political Boundaries
 - USGS Hydrology
 - Property Boundaries
 - Barriers
 - Bulltrout
 - Steelhead
 - ESA Listed Salmon Boundaries
 - TMDL Boundaries

20 mi
Mercator: 123.284117W, 46.113499N
Details Attributes

Salmon Recovery Conference

- Biennial Conference
- Schedule for May 27-29, Vancouver, Washington
- Over 600 attend
- Details will be announced in the next couple of months



Questions

Washington Department of Fish and
Wildlife Presentation

Developing the Big Picture of Fish Passage

For FBRB Members

AUGUST 19, 2014



Washington Department of Fish and Wildlife Developing the Big Picture of Fish Passage



WDFW History of Fish Passage

- 1986
 - Fishway inspections.
 - Unresolved fish passage problems
- 1991 WSDOT barrier culvert inventory was initiated.
 - Protocols developed and a prioritization process was developed.
 - A relational database was created linking culvert description with site characteristics.
- 1990's Training Program developed, additional county and state inventories conducted.
 - Jefferson and Thurston Counties.

What is a fish barrier?



Excessive Water
Surface Drop



High Velocity



Shallow Water
Depth



First Databases

- 1986-1997 First database established.
 - Five project specific databases were developed.
 - Fishway inspections, unresolved Fish Passage problem, WSDOT, Thurston and Jefferson County Culvert Inventory
 - Databases populated independent of each other.
- 1998 The Fish Passage Program, which was then called SSHEAR, database was developed.
 - Combination of previous databases
 - Database table with no front end application

Database changes

- 1998 WSDOT and WDFW entered into a cooperative agreement.
- WDFW was tasked with:
 - Developing standardized barrier assessment and prioritization methods.
 - Developing a centralized fish passage barrier database.
 - Providing technical assistance to grant recipients.

Guidance

- 1998 Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual
 - Change from subjective to objective approach.
 - How to assess and prioritize fish passage problems.
 - Includes dams, fishways, other human-made structures.
 - Last updated in 2009.

Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual



WASHINGTON DEPARTMENT OF
FISH & WILDLIFE

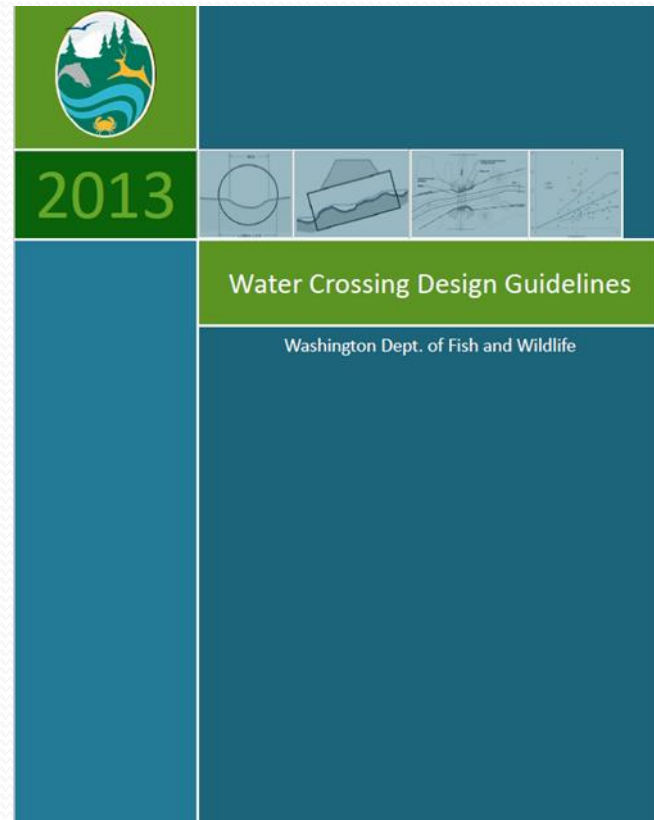
HABITAT PROGRAM

Technical Applications (TAPPS) Division



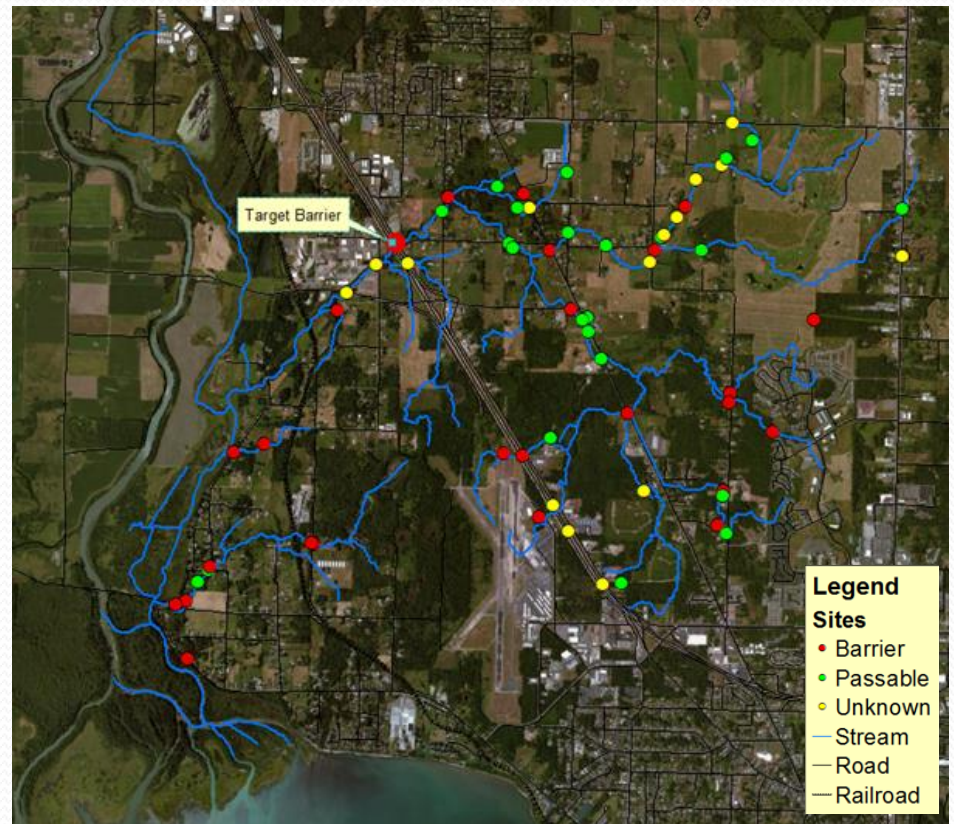
Guidance

- 2013 Water Crossing Design Guidelines
 - 2003 Design of Road Culverts for Fish Passage
- Aquatic Habitat Guidelines
- Culverts, bridges, tide gates, temporary crossings, abandonments, project planning



Prioritization Methods

- Prioritization Index (PI) Number
 - Based off fish passage improvement; upstream production; habitat gain; species present and ESA listing; cost (ownership based)
- Habitat Surveys
 - Walk downstream/upstream
 - Assess additional manmade features
- PI based on individual barrier



Fish Passage and Diversion Screening Inventory Database (FPDSI)

- Developed in 2000
- Converted to SQL Server with Access front end
- Multi-user support
- Better back-up
- 42,300 sites in database, 20,960 barrier sites



Site Data Entry Form: View/Edit Record

Select a Site
Choose the Site ID from the list at right. Speed up the search by keying in all or part of the Site ID and/or reduce the list size by completing the fields

Select Site: 998546

Associated Feature: All | County (optional): AND | WRIA (optional): OR | Stream (optional): AND

Site ID: 998546 | Project: WSDOT | Save | Cancel | Delete | Close

Location: Coordinates | Directions | Comments | Owner

General Location
Road: SR 4 | Mile Post: 23.65
County: Wahkiakum | WDFW Region: 5

Stream
Name: unnamed
Trib To: Eggman Cr
WRIA: 25 | River Mile: -999.99
LLID: 1234998463360
Distance Upstream (ft): 1,271.36
Potential Fish Habitat: No
Habitat Potential Criteria: Other

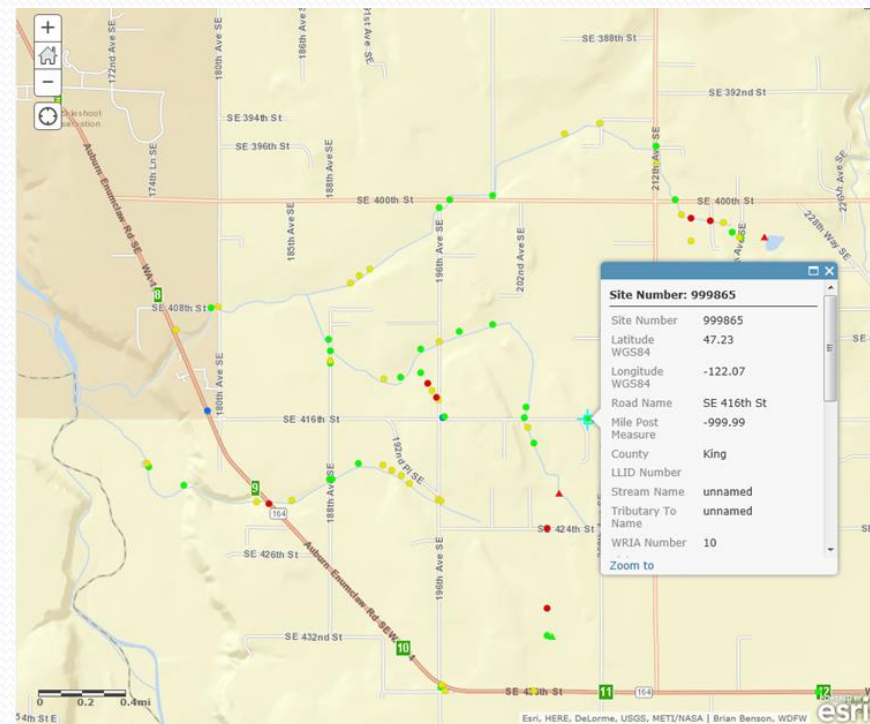
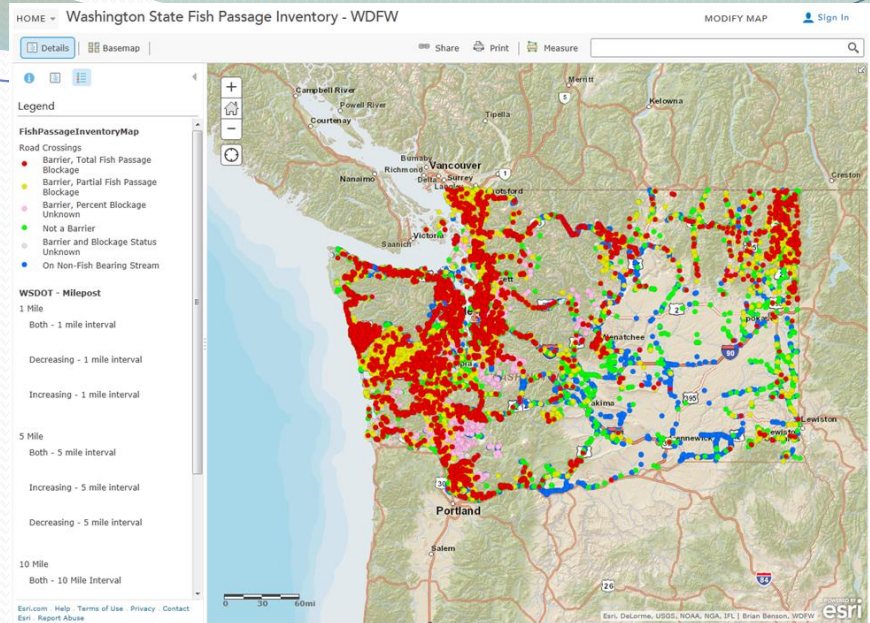
Associated Features
 Culvert
 Non-Culvert Xing
 Dam
 Other
 Natural
 Fishway
 Diversion
 Repairs

Forms
Fish Passage | Diversion
Culvert | New
Fishway
Biological | Priority Index
Habitat | Barrier
Species | Diversion
Administrative
Repairs | Scoping
Reports | Map
Site | View

Record History | View

Public Access

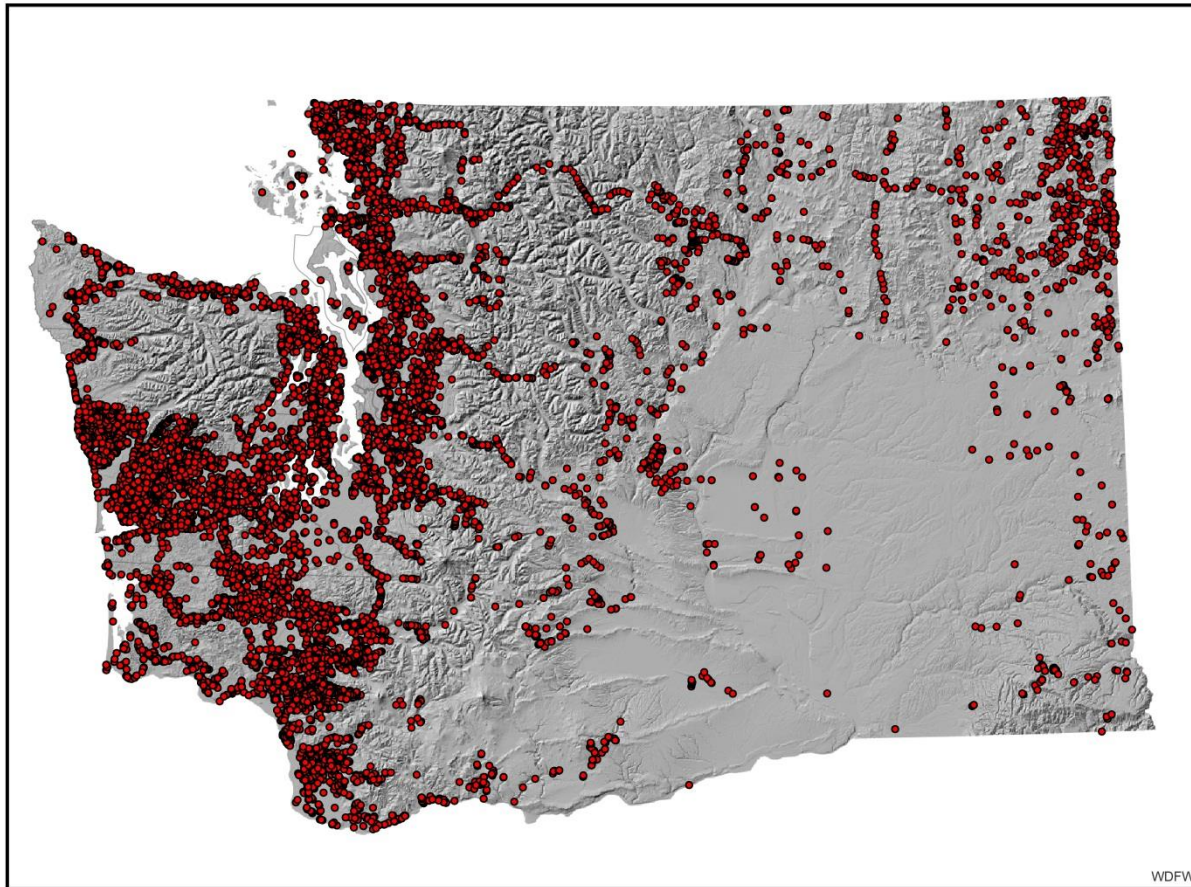
- Interactive map on WDFW webpage
- Sites broken down into feature type and passability
- Specific site information
- Additional information available upon request

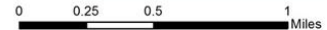
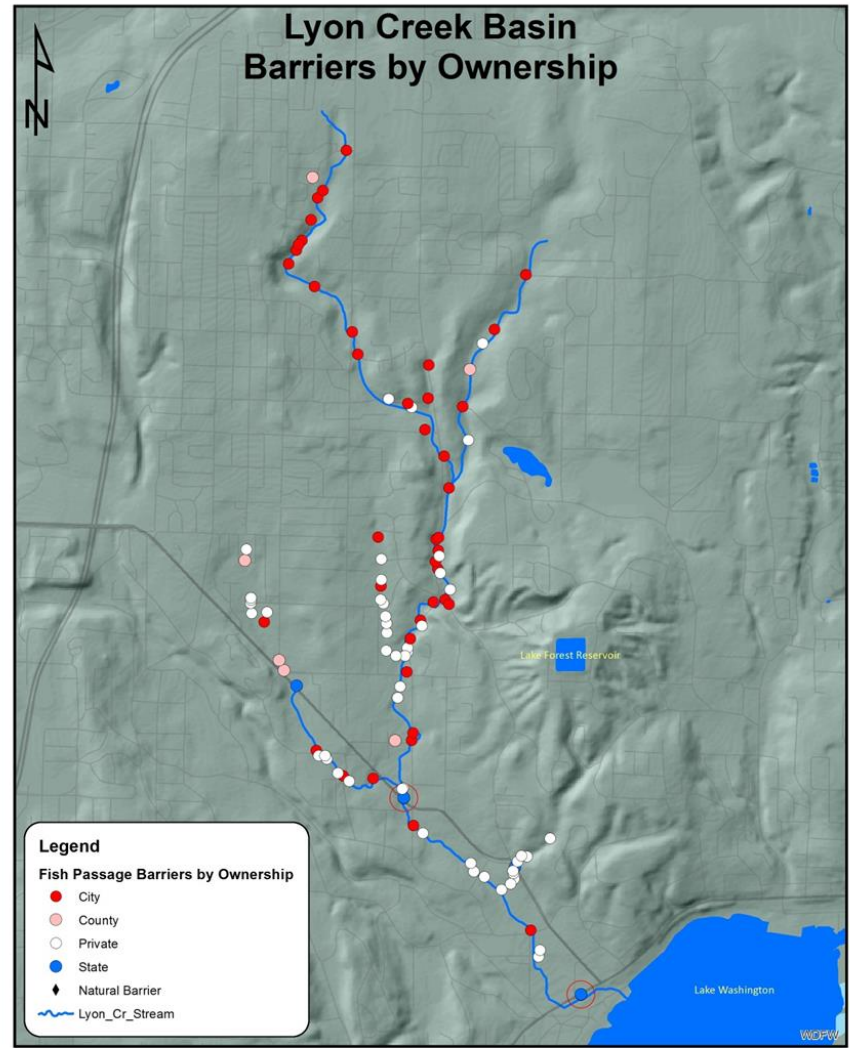
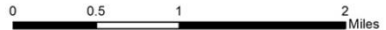
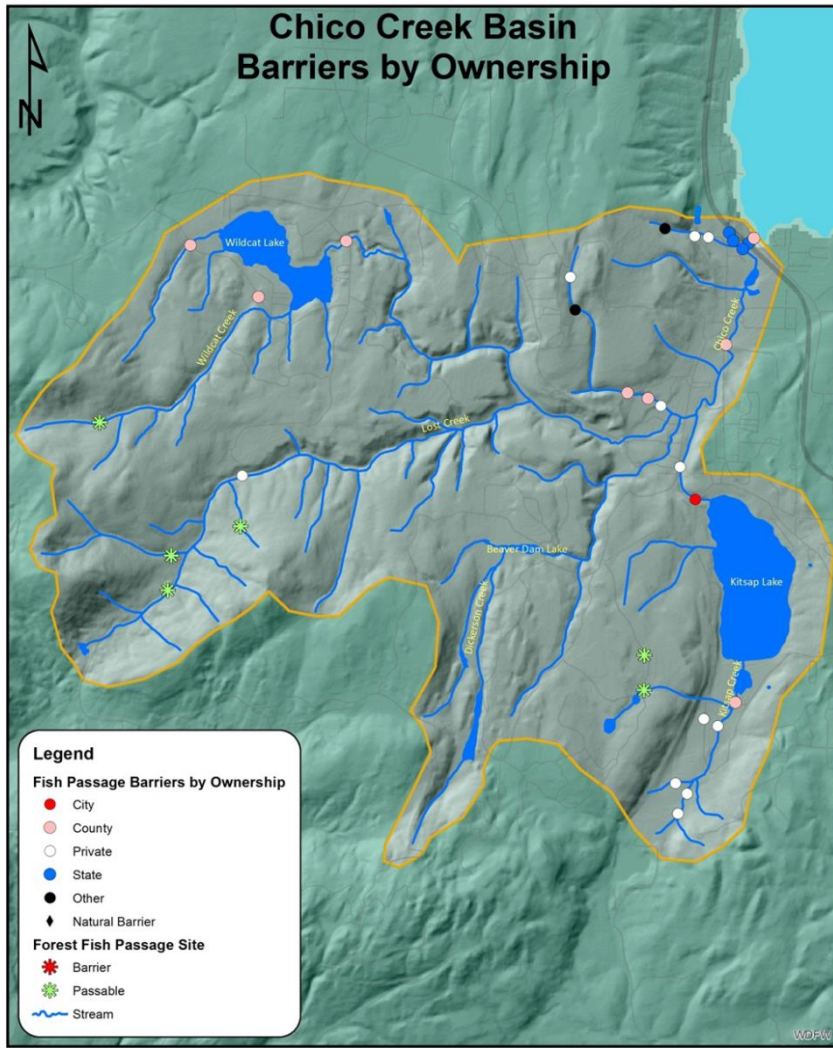


Where we're headed

- Make data more accessible to stakeholders.
 - New user friendly interface.
 - Interactive map with easily downloadable data.
- Working on updating how we share and collect information.
- Ongoing efforts
 - FFFPP, State Parks, WSDOT, NRCS, SRFB funded inventories
 - Inventories - Cities and Counties
 - DNR, Forest Service collaboration on data
- Tool for coordination.

How can this be useful?





Washington State Department of
Natural Resources Presentation

Road Maintenance and Abandonment Plans

For FBRB Members

AUGUST 19, 2014





WASHINGTON STATE DEPARTMENT OF
Natural Resources

Peter Goldmark - Commissioner of Public Lands

Road Maintenance and Abandonment Plans (RMAP)

Brandon Austin - Forest Practices Division
RMAP Support Specialist



Forest Practices History

- 1946 – First Forest Practices (FP) Act passed.
- 1974 – New FP Legislation Adopted (first time road construction was addressed).
- 1988 – RMAP was added to the rules (WAC 222-24-050(1)).
- 1997 – Forests & Fish Report.
- 1999 – Salmon Recovery Act (ESHB 2091, Forests & Fish Law).
- 2000 – Emergency RMAP rule.



Forest Practices History

- 2001 – Culvert Case begins.
- 2001 – New Forest Practices Rules (Forests and Fish Rules).
- 2003 – Small Forest Landowner cost share (FFFPP) and Checklist RMAPs.
- 2005 – Forest Practices HCP.
- 2011 – Extension Rule.
- 2013 – U.S. vs WA (Culvert Case).
- 2013 – FPHP rule change.

Purpose of the RMAP Requirements

- “To protect water quality, riparian habitat, roads must be constructed and maintained in a manner that will prevent potential or actual damage to public resources.” WAC 222-24-10(2)



Purpose of the RMAP Requirements

- “This will be accomplished by.....
 - Providing for fish passage;
 - Preventing mass wasting;
 - Limiting delivery of sediment and surface runoff to all typed waters; and
 - Avoiding capture and redirection of surface or ground water.”



What is Required of Landowners

- Protection of Public Resources.
 - Any road that has the potential to or is impacting Public Resources must be addressed by the landowner (L/O).



Public Resources

-water, fish, and wildlife and
....capital improvements of the
state....

WAC 222-16-010



What is Required of Landowners

- All plans were required to be submitted to DNR by June 30, 2006 and all work completed by October 31, 2016 (up to October 31, 2021 - extensions).



Requirements for small forest landowners

- Cost-share money is available to help fix fish passage barriers (Family Forest Fish Passage Program).
- No annual reporting requirements.
- No RMAP due until FPA/N for timber harvest.



Where do Landowners Start

- There are planning templates for both small and large landowners.
- Landowners need to schedule their RMAP submittal.
- Within a road plan, there are SIX basic parts.

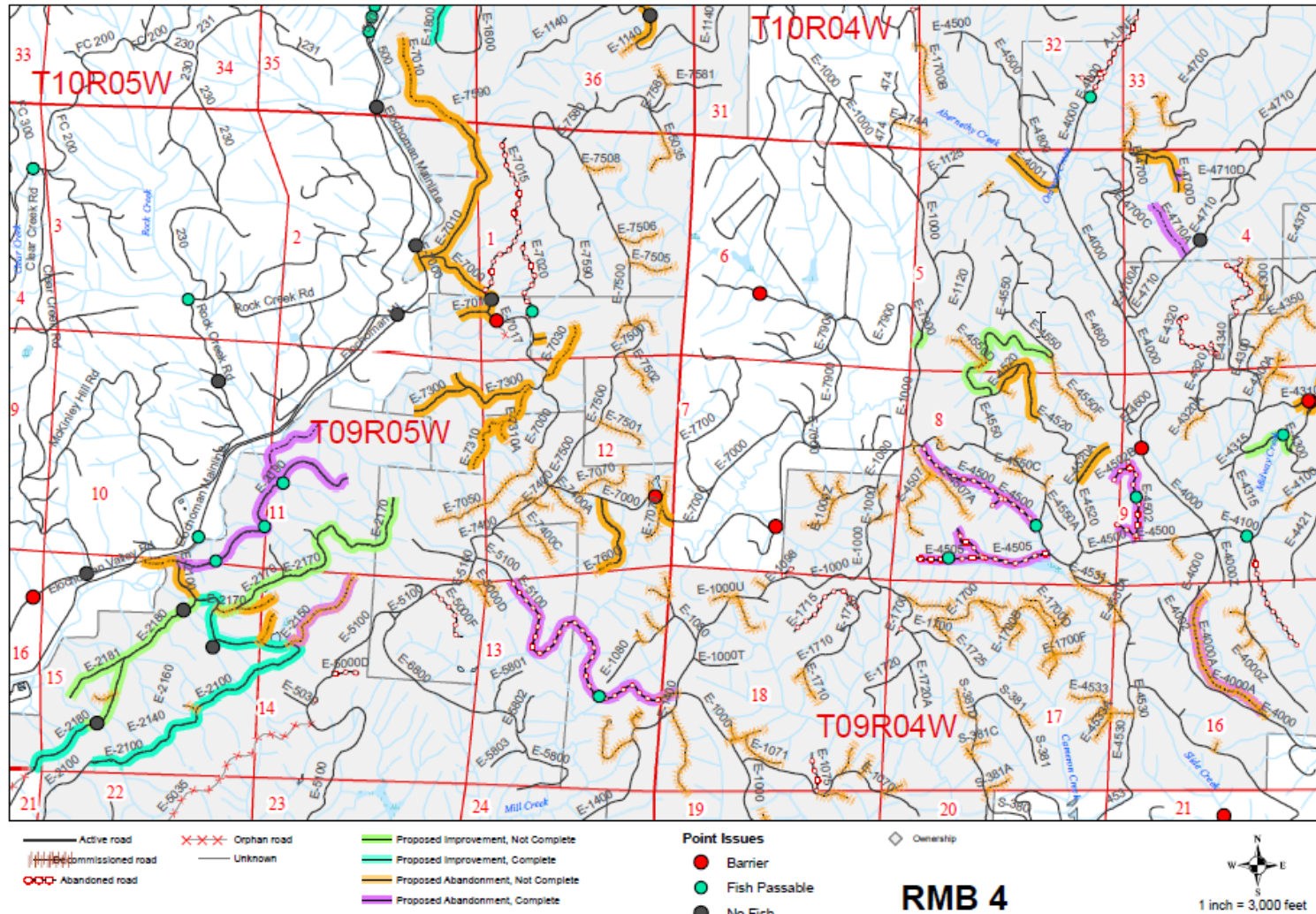


Elements of RMAP

1. *Ownership Maps Showing:* WAC 222-24-051(6)(a)

- All forest roads,
- Orphan roads and planned abandonment,
- All typed water,
- Type A and B Wetlands adjacent to or crossed by roads,
- Stream adjacent parallel roads,
- An inventory of the existing conditions, and
- Areas where there are proposed improvements.

Map Example



2. *Detailed Scheduling Information*

Includes a detailed description of the first years work with a tentative schedule to complete the entire plan within rule timeframe. WAC 222-24-051(6)(b)

- Scheduling sheets show and track road segments that will be upgraded.
- Schedules can be changed and the changes must be approved by DNR.

3. Standard Maintenance Practices

- Needs to show the general maintenance practices.
 - Surface maintenance and resurfacing.
 - Fill/cut slope and ditch maintenance.
 - Culvert and other drainage structure maintenance.
 - Roadside vegetation management.
- Most landowners use the checklist provided by DNR.

4. *STORM MAINTENANCE STRATEGY*

Storm Maintenance Strategies need to show how the landowner will accomplish the following:

- Pre-storm planning.
- Emergency maintenance.
- Post storm recovery.



5. *Inventory and Assessment of the risk to public resources or public safety of orphaned roads.*

6. *Landowner or representative's signature.*



RMAP Scheduling & Review Process

- L/O schedules ownership for plan submittal.
- First RMAP is submitted as scheduled.
- DNR distributes plan to stakeholder reviewers (tribes, WDFW, ECY, and other interested parties).
- DNR and stakeholders field review plan and comment.
- DNR approves or disapproves plans w/i 45-days.
- Landowners submit Annual Reports & additional Plans until all work is complete.
- Landowners continue routine maintenance.



RMAP Accomplishments

Large Landowner RMAPs report the following annually:

- Work accomplished.
- Work for next year.
- Ownership changes.
- Work schedule changes.

Standardized form used by all.

SAMPLE

WASHINGTON STATE DEPARTMENT OF
Natural Resources

FORM 4-RMAP ANNUAL ACCOMPLISHMENT AND PLANNING REPORT
PLEASE USE THE INSTRUCTIONS TO COMPLETE THIS FORM.
TYPE OR PRINT IN INK.

Landowner Name: Large Forest Land Company RMAP # 1234567
Landowner Representative Signature: _____ Date: _____
RMAP Anniversary Date: 12/1/2011 WRIA Number(s): _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____ Phone Number: _____
Contact Person (if Different from above): _____
Name: Forest Engineer
Mailing Address: _____
City: _____ State: _____ Zip Code: _____ Phone Number: _____

RMAP Completion Year: _____

Please check if there have been any changes due to lands being purchased, sold, exchanged, etc. since your last annual report and describe the changes or attach the additional information.

Current RMAP Summary:
How many acres within this plan: 60,202
Total length of your forest roads(s) in this plan: 320 miles
Total length of orphan roads in this plan (roads and railroad grades not used since 1974): 41.52 miles
Length of orphan road segments posing a risk to public safety or public resources: 19 miles
Total number of road related fish passage barriers: 20
Total length of forest road needing improvement or abandonment: 14.21 miles or feet
Percentage of road improvement completed by road management block (RMB):

RMB	% road improvement complete
RMB 1	85%
RMB 2	95%
RMB 3	90%
RMB 4	90%

Washington State Department of Natural Resources RMAP Annual Accomplishment & Planning Report

SAMPLE

Work Completed Since Last Annual Plan:
Total length of road improvement completed: 3 miles or feet
Total length of road abandonment completed: 3 miles or feet
Total length of orphan road abandonment and/or improvement completed: 0 miles
Total length of orphan road abandonment threat that has been mitigated: 0 miles
Total number of fish passage barriers removed fixed: 3
Approximate stream miles opened for fish passage: 2.2

Work Prepared for Upcoming Year's Work:
Total length of road to be improved: 0 miles
Total length of road to be abandoned: 2.44 miles
Total length of orphan road to be abandoned and/or improved: 1.12 miles
Total number of fish passage barriers to be removed / fixed: 3

*Maps are required that show location(s) of work accomplished and planned are required.

Additional Information (attach additional page(s) if necessary):
Although no miles of road are proposed to be improved next year, 2.44 miles of road will be abandoned along with 2 fish blockages. Regular road maintenance will be done on several miles of road that are already up to forest practice standards. About 2.44 miles of orphan road are scheduled for improvement or abandonment.
A total of 11 miles of new road has been added to the RMAP.

Percentage of road improvement completed by road management block (RMB):

Road Management Block	% of Remaining Fish Barriers to be fixed with
RMB 1	0%
RMB 2	0%
RMB 3	0%
RMB 4	30%

Copies to: Landowner RCY Rep. DFW Rep. Tribal Rep(s) Other _____

For DNR Region Office Use Only

Decision: Accepted Not Acceptable - reason(s) for non-acceptance: _____

Changes Made since Last Report: _____

Initiated By: _____ Date: _____

Washington State Department of Natural Resources RMAP Annual Accomplishment & Planning Report 6/3/2011

DNR Accomplishment Report

Statewide annual report



WASHINGTON STATE DEPARTMENT OF
Natural Resources

Statewide Road Maintenance and Abandonment Plan Accomplishment Report 2001-2013

DNR Region	* Number of approved RMAPs	Miles of forest road assessed	2013 Miles of forest road identified needing improvement	Miles of road improved	Miles of road abandonment	Miles of orphaned roads	Number of fish passage barriers identified	Number of fish passage barriers corrected	Miles of fish habitat opened	Total # of RMAP checklist from small forest landowners
Northeast	89	7,625	631	5,632	303	96	834	737	369	3,228
Northwest	27	5,614	1,155	3,040	1,158	817	538	405	136	1,700
Olympic †	32	8,046	2,046	1,065	137	279	1,323	841	395	944
Pacific Cascade †	75	22,452	4,266	10,753	701	502	3,445	2,392	1,737	3,536
South Puget Sound †	25	5,345	558	1,258	506	165	847	494	233	837
Southeast	15	6,500	230	1,045	612	497	689	429	260	726
Statewide Totals	263	55,582	8,886	22,793	3,416	2,356	7,676	5,298	3,129	10,971

* Large landowners may have more than one RMAP; this number also includes some small forest landowners who submitted RMAPs.



DNR's RMAP Challenges

- Standardization & consistency across the state.
- Additional workload for extension requests.
- Land ownership changes (sold/purchased land).



Mitigation for Challenges

- Standardized definition of terms.
- Standardized forms.
- Standardized accomplishment reporting.
- Statewide “corporate” GIS map layer.



