

Cowlitz River Habitat Programs

Melora Shelton

Cowlitz River Annual Project Review and
Fisheries Science Conference

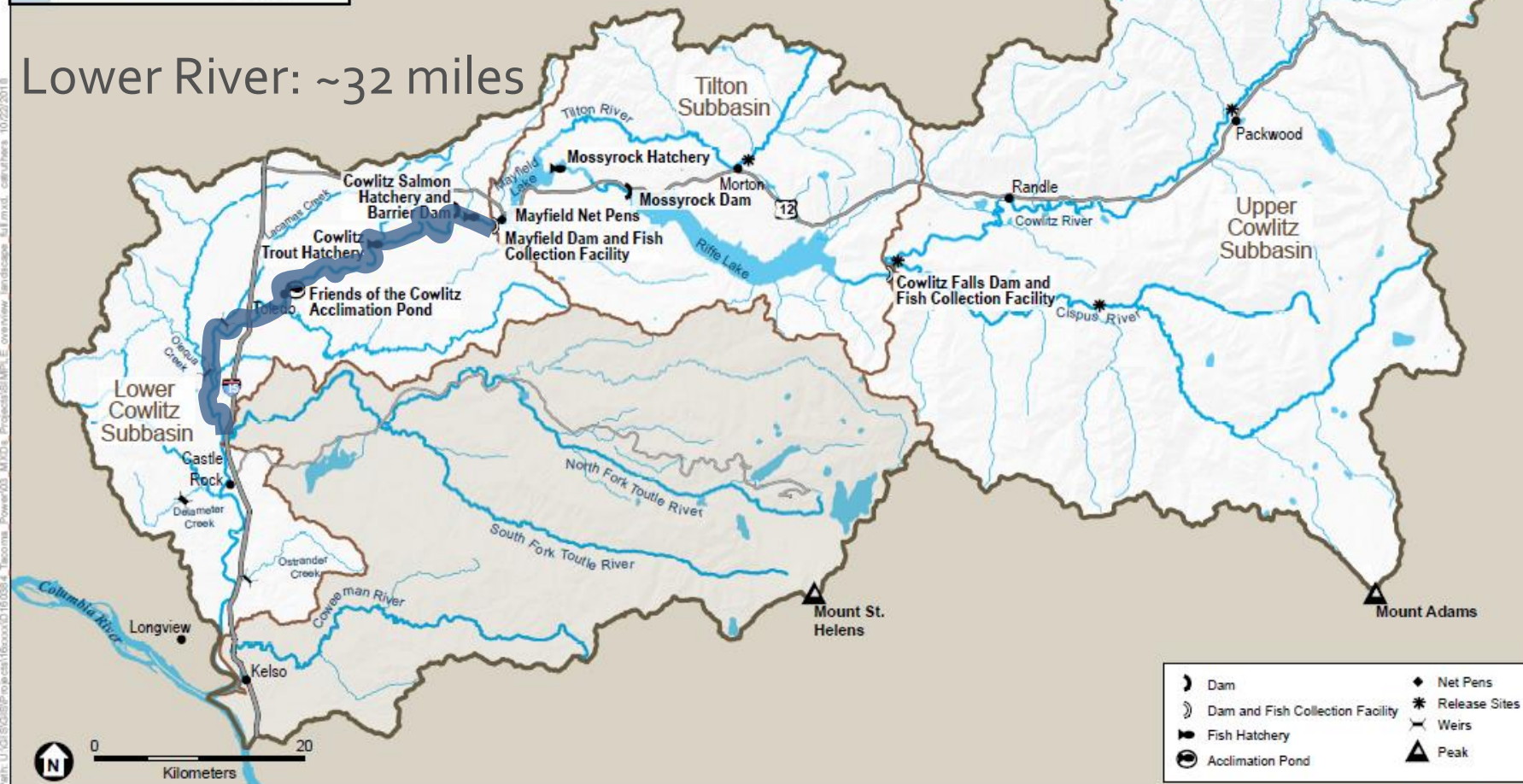
July 10, 2019

Today's Agenda

- Geography: Lower River, Upper Basin
- Upper Basin: Focus on Cowlitz Restoration and Recovery Program
- Lower River: Ongoing Habitat Work
- Looking Forward



Lower River: ~32 miles



SOURCE: SWIFD, 2014; WDNR, 2017

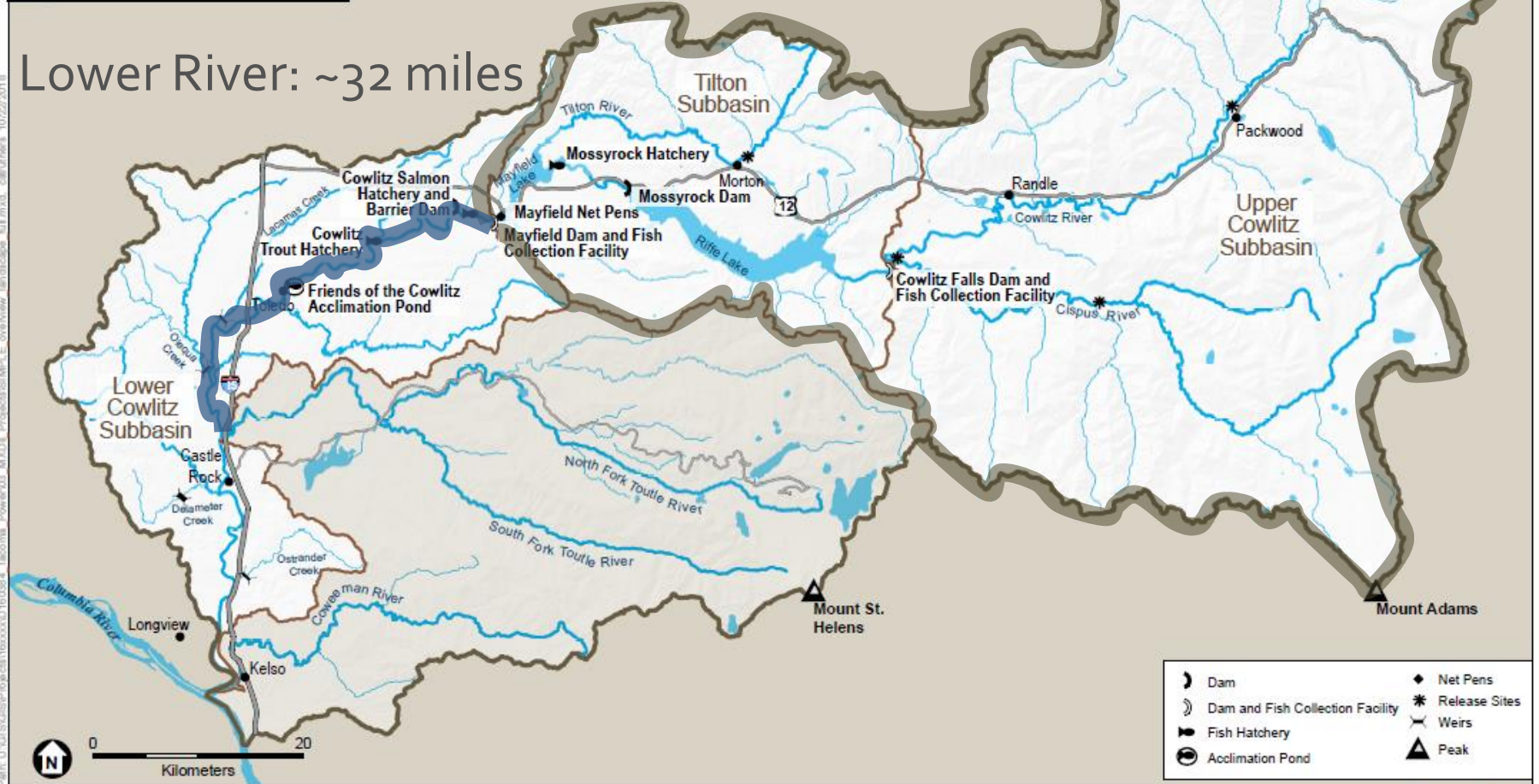
Tacoma Power

Figure 1
Cowlitz River Subbasins



Upper Basin: watershed

Lower River: ~32 miles



SOURCE: SWIFD, 2014; WDNR, 2017

Tacoma Power

Figure 1

Cowlitz River Subbasins

Upper Basin Recovery Plan

Table F-1. Status and goals of focal salmonid and steelhead populations in the Upper Cowlitz subbasin.

Species	Population	Recovery Priority ¹	Viability		Improve-Ment ⁴	Abundance		
			Status ²	Obj. ³		Historic ⁵	Current ⁶	Target ⁷
Fall Chinook ^(Tule)	U. Cowlitz	Stabilizing	VL	VL	--	28,000	0	--
Spring Chinook	U. Cowlitz	Primary	VL	H+	>500%	22,000	300	1,800
Winter Steelhead	U. Cowlitz	Primary	VL	H	>500%	1,400	<50	500
Coho	U. Cowlitz	Primary	VL	H	>500%	18,000	<50	2,000
Spring Chinook	Cispus	Primary	VL	H+	>500%	7,800	150	1,800
Winter Steelhead	Cispus	Primary	VL	H	>500%	1,500	<50	500
Coho	Cispus	Primary	VL	H	>500%	8,000	<50	2,000
Spring Chinook	Tilton	Stabilizing	VL	VL	0% ⁸	5,400	100	--
Winter Steelhead	Tilton	Contributing	VL	L	>500%	1,700	<50	200
Coho	Tilton	Stabilizing	VL	VL	0% ⁸	5,600	<50	--

¹ Primary, Contributing, and Stabilizing designations reflect the relative contribution of a population to major population group recovery goals.

Upper Basin Recovery Plan

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Upper Basin Recovery Plan

"Most historical spring Chinook habitat in the Washington lower Columbia is found in the Upper Cowlitz, Cispus, and NF Lewis Rivers. Recovery criteria cannot be met for spring Chinook without restoration of viable populations in at least two of these three major historical production areas, which are currently blocked by hydroelectric dams."

2010 Recovery Plan, Chapter 6

Upper Basin Recovery Plan

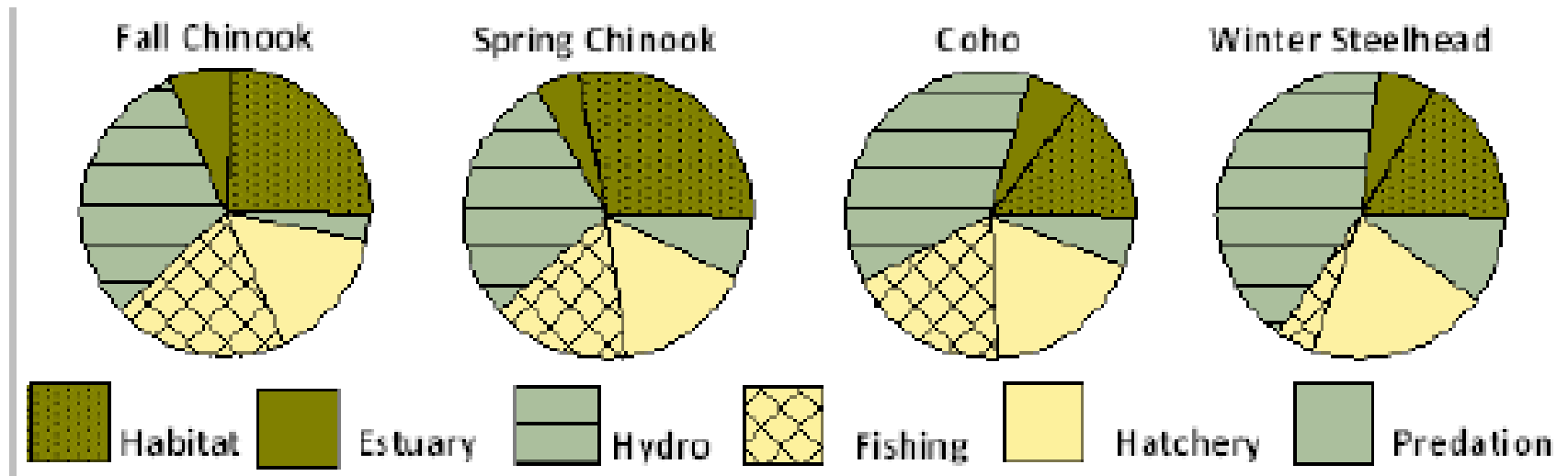


Figure F-36. Relative contribution of potentially manageable impacts on upper Cowlitz River salmonid populations.

Cowlitz Restoration and Recovery Program

166 FERC ¶ 62,104

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington

Project No. 2016-228

ORDER MODIFYING AND APPROVING PLAN TO ABANDON VOLITIONAL
UPSTREAM PASSAGE AND IMPLEMENT COWLITZ
RESTORATION AND RECOVERY FUND PLAN
RECOVERY FUND PLAN

(Issued March 7, 2019)

Cowlitz Restoration and Recovery Program



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Website: [MyTPU.org/CRR](https://www.mytpu.org/CRR)

[◀ Back](#)

Cowlitz Restoration & Recovery Project

[CRR Grants for Habitat Projects](#)[CRR Grants for Hatchery-Associated Projects](#)[Habitat Assessments](#)

Cowlitz Restoration & Recovery Project

Up to \$3 million in grant funding available for habitat and hatchery-associated production projects in 2019!

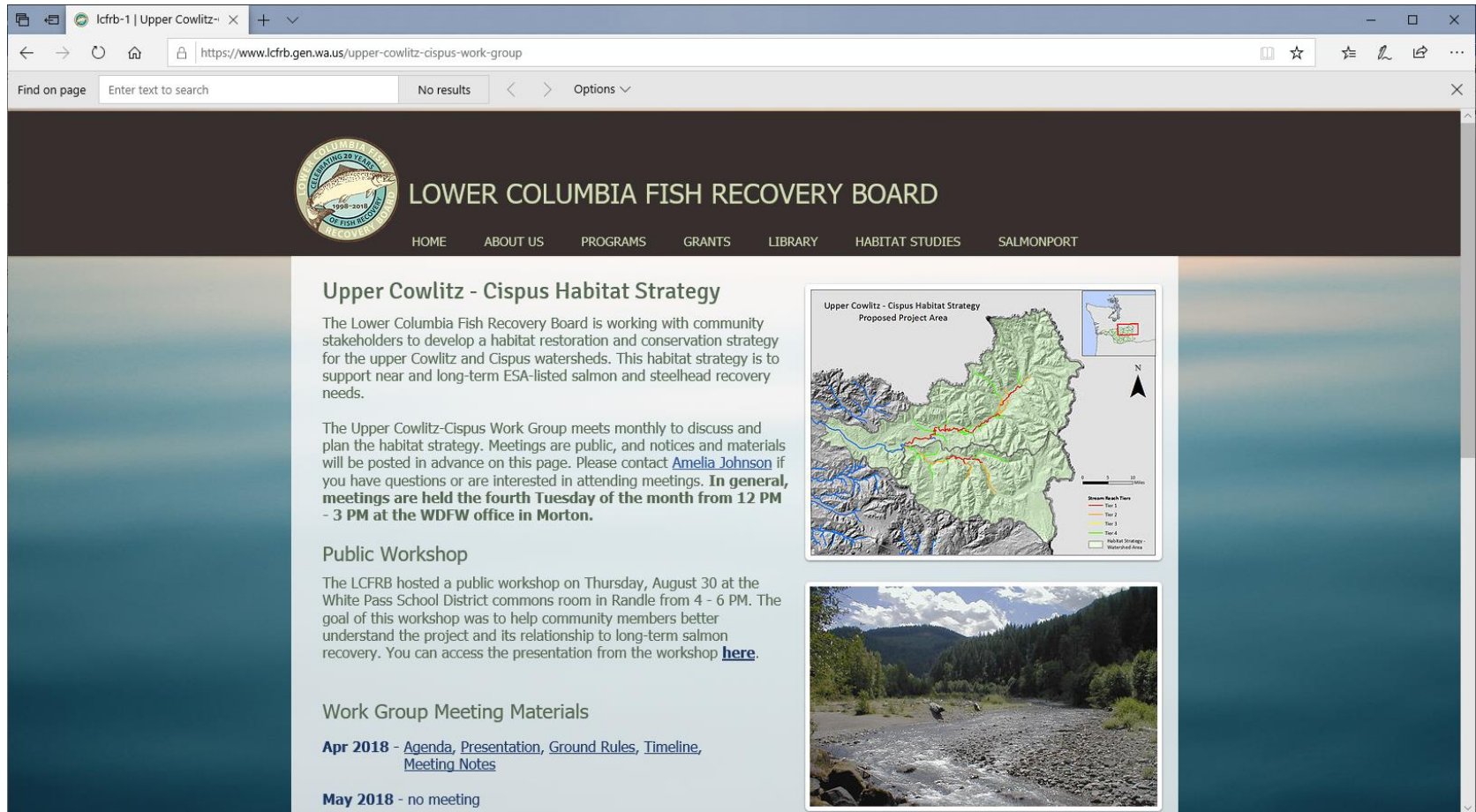
Do you have an innovative idea for a habitat or hatchery-associated project that would help endangered salmon and steelhead in the upper Cowlitz River basin? We want to hear it!

Tacoma Power established the \$17 million Cowlitz Restoration and Recovery (CRR) Fund as part of its federal license to operate the Mayfield and Mossyrock dams. The goal of the fund is to support activities that protect and promote recovery of endangered salmon species in the upper Cowlitz River basin, such as

- [Habitat projects, or activities that lead them, aimed at protection or restoration](#)
- [Hatchery-associated production projects aimed at reintroduction and recovery of spring Chinook in the upper Cowlitz basin](#)
- [Habitat assessments to guide protection and restoration activities](#)

Upper Cowlitz - Cispus Habitat Strategy

Website: www.lcfrb.gen.wa.us/upper-cowlitz-cispus-work-group



The screenshot shows a web browser window with the address bar displaying <https://www.lcfrb.gen.wa.us/upper-cowlitz-cispus-work-group>. The website header features the Lower Columbia Fish Recovery Board logo, which includes a fish and the text "CELEBRATING 20 YEARS OF RESTORATION RECOVERY 1998-2018". The navigation menu includes links for HOME, ABOUT US, PROGRAMS, GRANTS, LIBRARY, HABITAT STUDIES, and SALMONPORT.

Upper Cowlitz - Cispus Habitat Strategy

The Lower Columbia Fish Recovery Board is working with community stakeholders to develop a habitat restoration and conservation strategy for the upper Cowlitz and Cispus watersheds. This habitat strategy is to support near and long-term ESA-listed salmon and steelhead recovery needs.

The Upper Cowlitz-Cispus Work Group meets monthly to discuss and plan the habitat strategy. Meetings are public, and notices and materials will be posted in advance on this page. Please contact [Amelia Johnson](#) if you have questions or are interested in attending meetings. **In general, meetings are held the fourth Tuesday of the month from 12 PM - 3 PM at the WDFW office in Morton.**

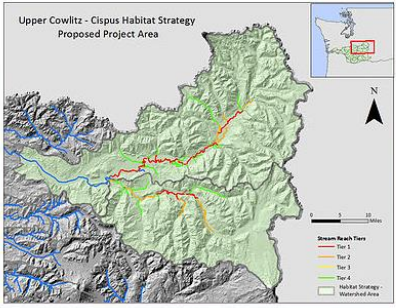
Public Workshop

The LCFRB hosted a public workshop on Thursday, August 30 at the White Pass School District commons room in Randle from 4 - 6 PM. The goal of this workshop was to help community members better understand the project and its relationship to long-term salmon recovery. You can access the presentation from the workshop [here](#).


Work Group Meeting Materials

Apr 2018 - [Agenda](#), [Presentation](#), [Ground Rules](#), [Timeline](#), [Meeting Notes](#)

May 2018 - no meeting



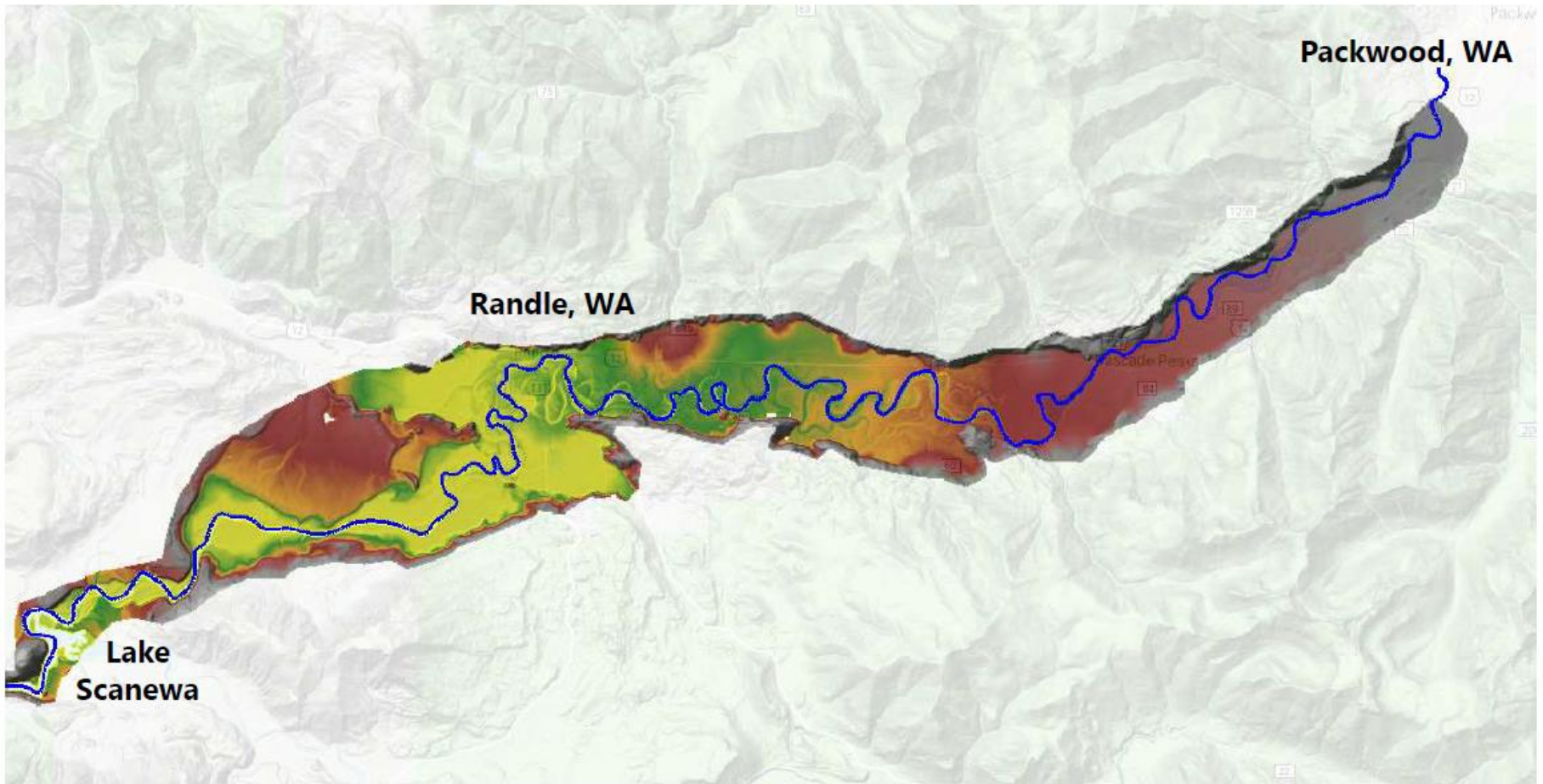
The map shows the proposed project area for the Upper Cowlitz - Cispus Habitat Strategy. It includes a legend for Stream Reach Type (Type 1, Type 2, Type 3, Type 4) and Habitat Strategy Watershed Area. A scale bar indicates 0 to 12 miles, and a north arrow is present.



A photograph showing a river flowing through a forested landscape, likely representing the habitat area discussed in the strategy.

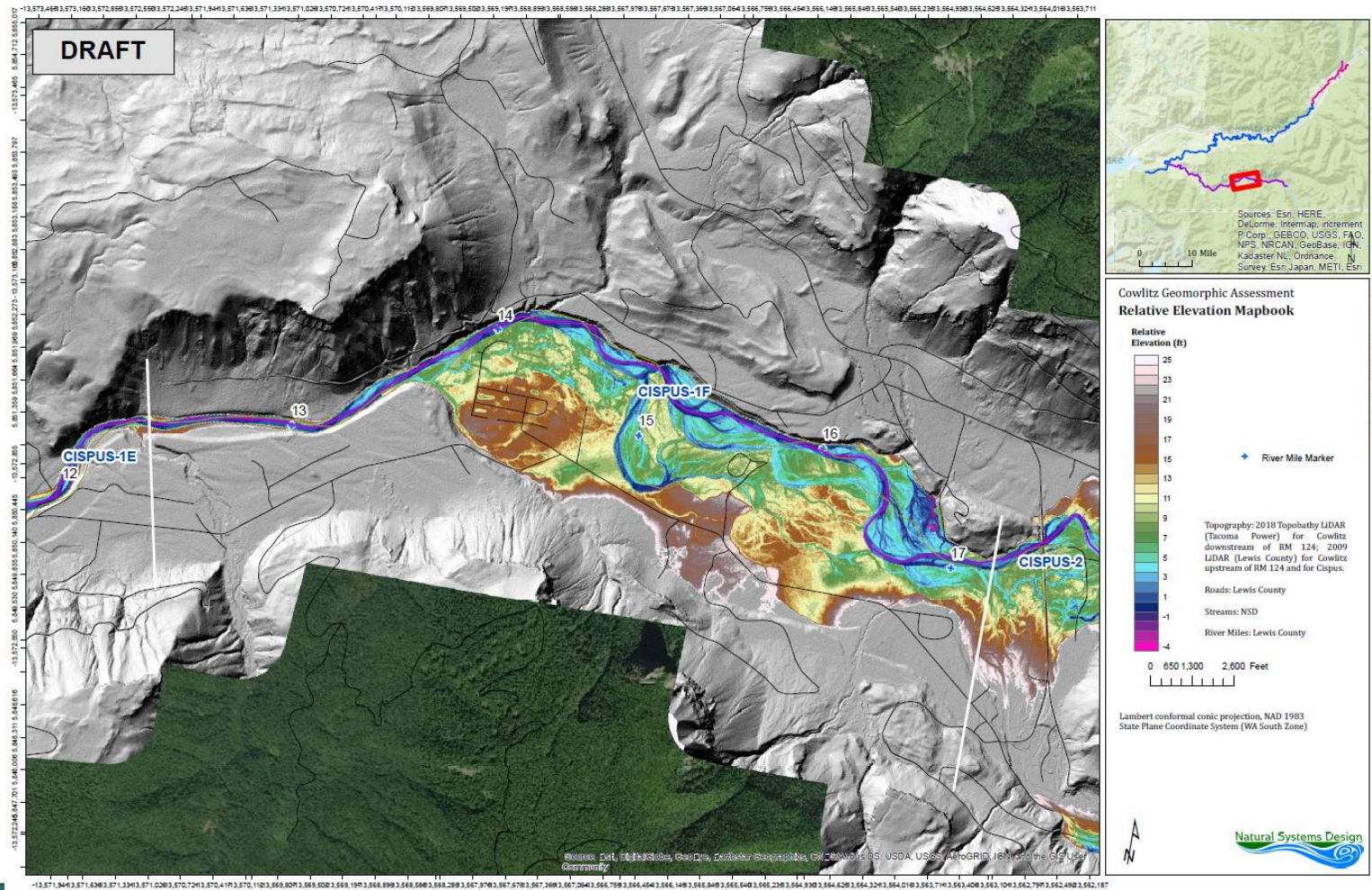
Tacoma Power Habitat Assessments

Blue/green LiDAR: Packwood to Scanewa (completed 2018)



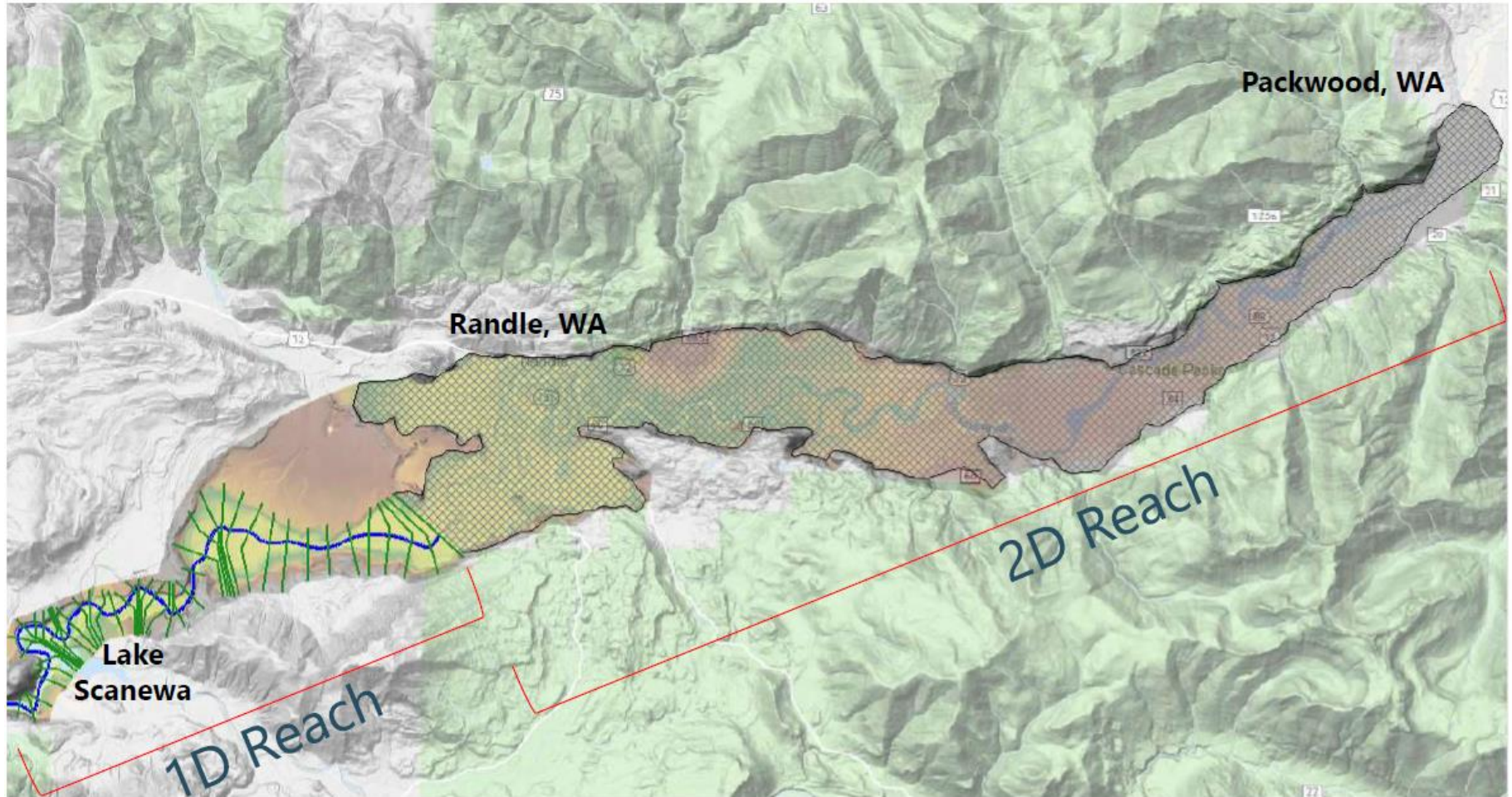
Tacoma Power Habitat Assessments

Geomorphic Assessment: Upper Cowlitz - Cispus (completed)



Tacoma Power Habitat Assessments

Hydraulic Model: Packwood to Randle (complete late 2019)



Hatchery-Associated Production Projects

Per SA5: "...hatchery production may be considered as part of the plans to expend the [CRR Fund] for the purposes of protection and promoting recovery of listed stocks."

Initial guidance established by the Fisheries Technical Committee in CRR Implementation Strategy and HAP Guiding Principles:

- Remote site incubators
- Distribution of fry or fingerlings
- Smolt acclimation where quality habitat exists but is underutilized
- Introducing fish into areas where restoration has occurred or fish passage barriers have been addressed

CRR Grant Rounds 2019 and 2020

- 2019 Grant Round in process, funding decisions due November
- 2020 Grant Round announcement anticipated December 2020
- Early coordination encouraged
- See website (MyTPU.org/CRR) and/or contact Tacoma Power

Lower River Recovery Plan

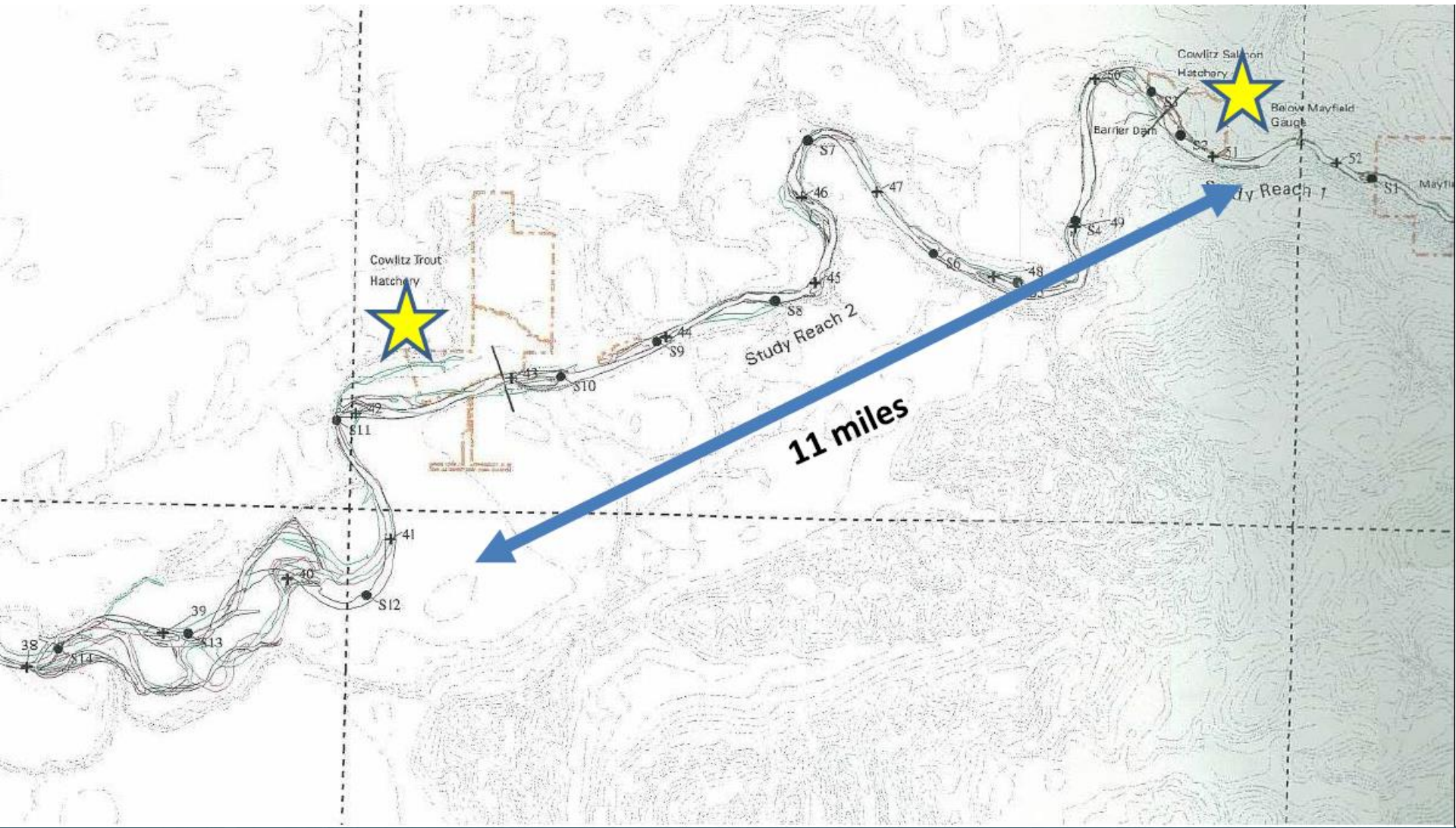
Table G-1. Status and goals of focal salmonid and steelhead populations in the lower Cowlitz basin

Species	Population	Recovery Priority ¹	Viability		Improve-ment ⁴	Abundance		
			Status ²	Obj. ³		Historic ⁵	Current ⁶	Target ⁷
Fall Chinook ^(Tule)	L. Cowlitz	Contributing	VL	M+	50%	24,000	500	3,000
Chum (Fall)	L. Cowlitz	Contributing	VL	M	>500%	195,000	<300	900
Chum (Summer)	L. Cowlitz	Contributing	VL	M	>500%	n/a	n/a	900
Winter Steelhead	L. Cowlitz	Contributing	L	M	5%	1,400	350	400
Coho	L. Cowlitz	Primary	VL	H	100%	18,000	500	3,700

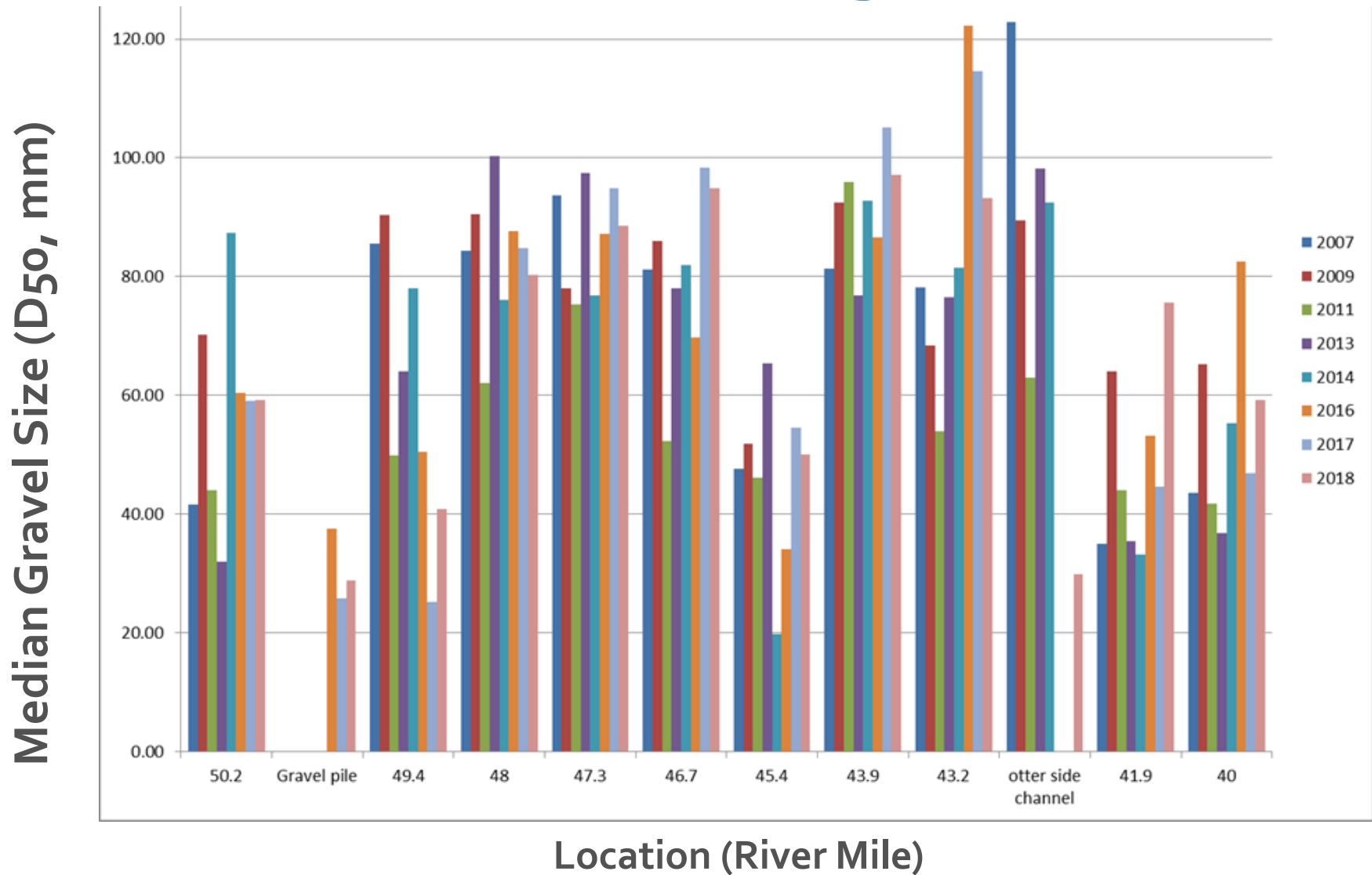
Lower River: Large Woody Debris



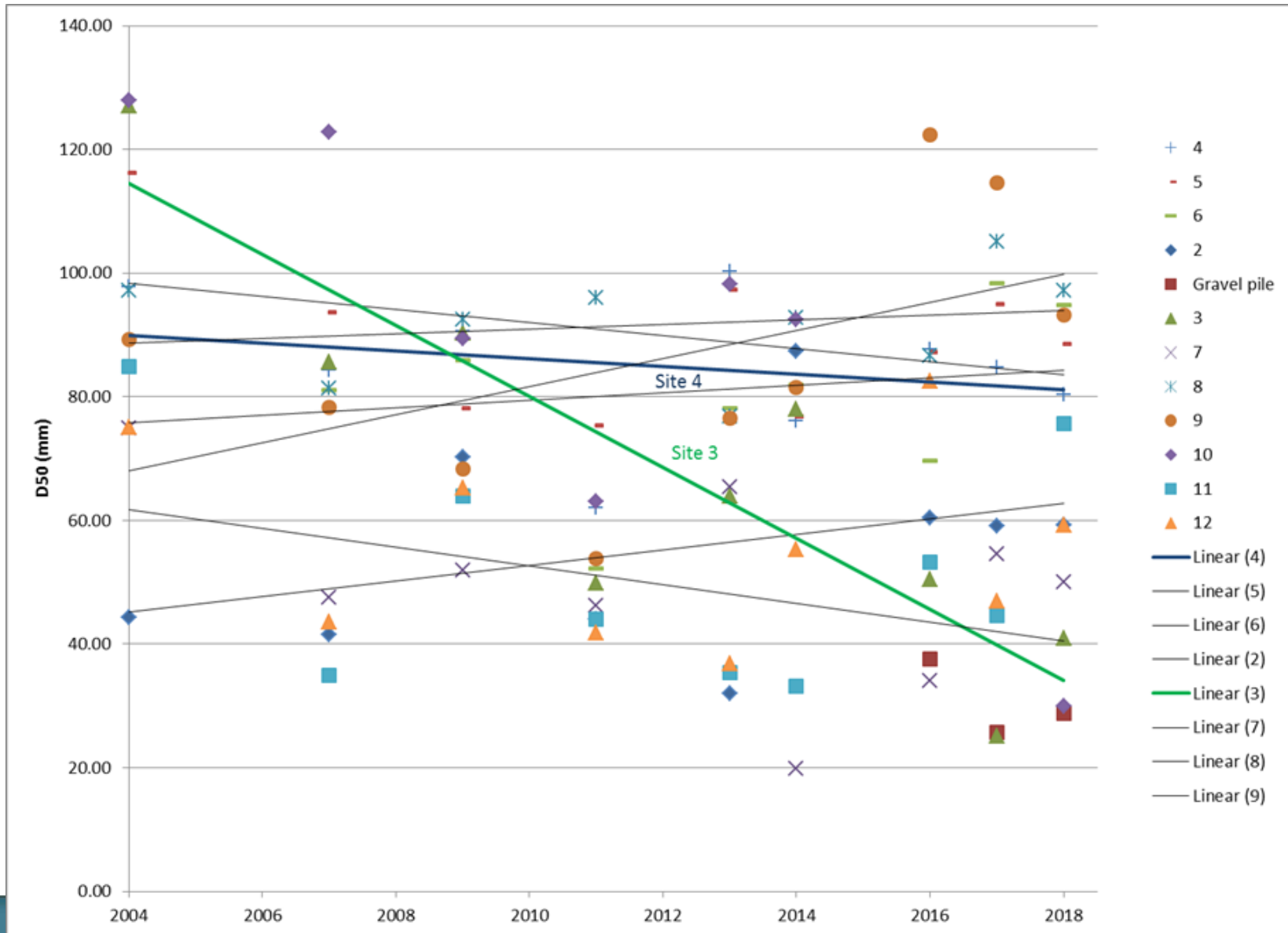
Lower River: Gravel Augmentation



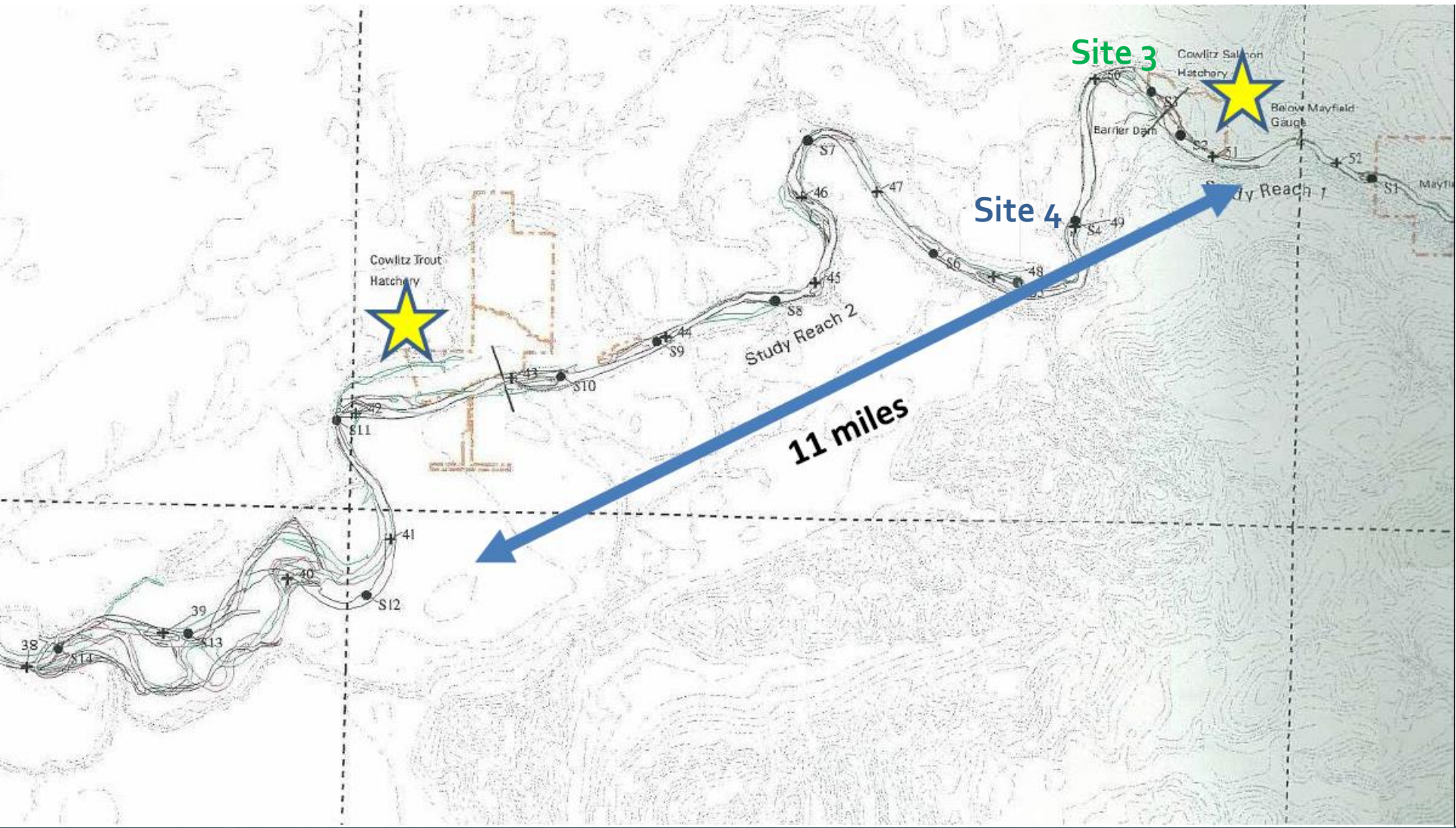
Lower River: Gravel Augmentation



Lower River: Gravel Augmentation



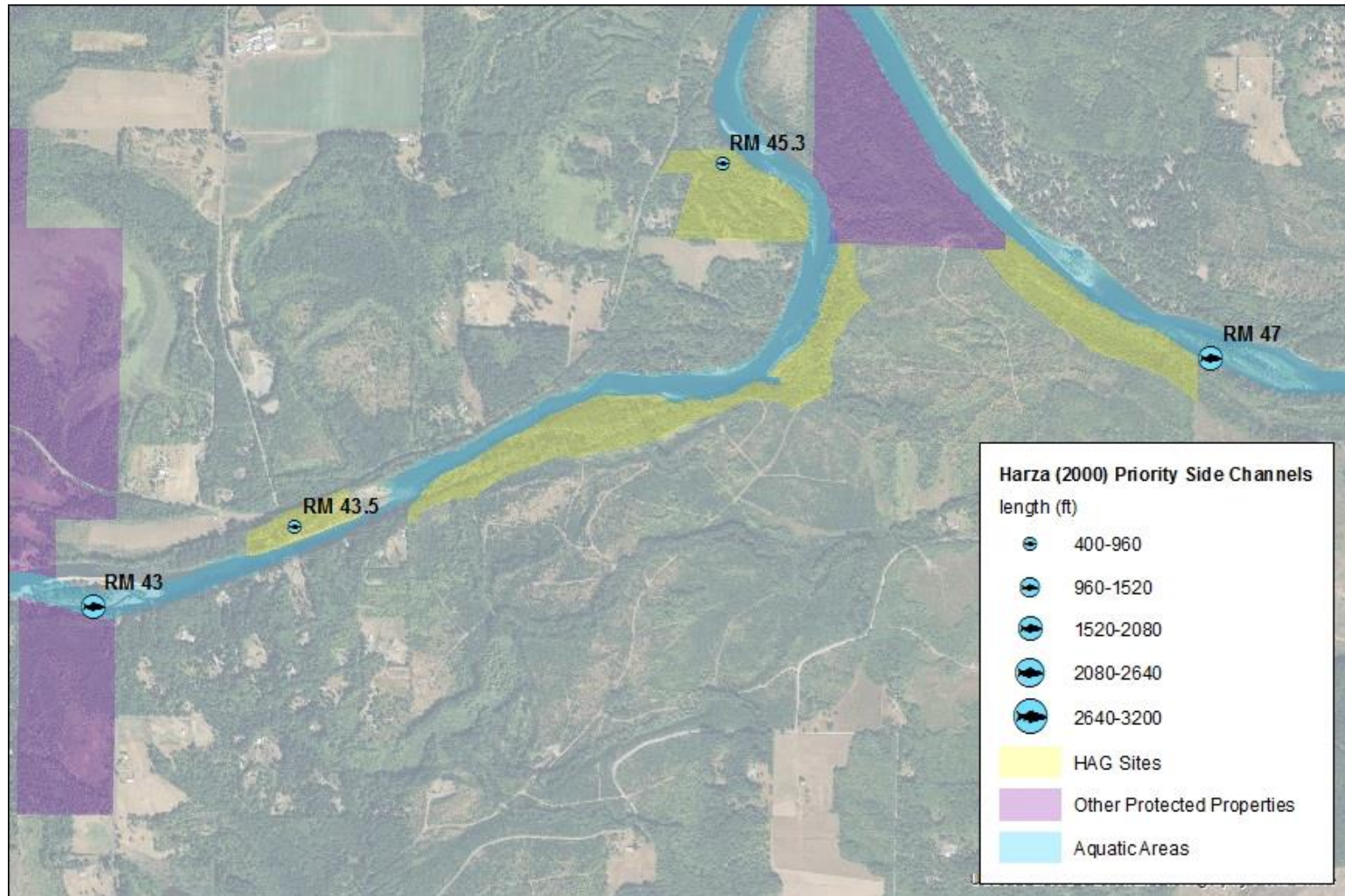
Lower River: Gravel Augmentation



Lower River: Gravel Augmentation



Lower River: Habitat Protection



Lower River: Habitat Protection

2018 Side Channel Protection

- 1999: 24 side channels identified
- 1999: 12 of 24 identified for **priority protection**

Side Channel	Recommendation	Current form of protection		
		HAG	protected, other	aquatic/shoreline
RM 49	No action			
RM 47	Protect/enhance	partial		
RM 45.3	Protect	partial		
RM 45	No action	yes		
RM 43.5	Protect/maintain	yes		
RM 43	Protect/enhance		yes	
RM 42	Pond reconnection?	partial		partial
RM 39.7	No action			
RM 38-40	Protect/enhance	partial		partial
RM 37.5	No action			yes
RM 36.7	No action			yes
RM 36	-			yes
RM 35.5	Protect	yes		yes
RM 34.7	-			partial
RM 33.3	-		yes	yes
RM 33	Protect/enhance	yes	yes	yes
RM 32	Protect/enhance	yes	yes	yes
RM 31.5	Protect/enhance			partial
RM 30.5	No action			yes
RM 30.5	Protect/maintain		yes	yes
RM 30.3	-			partial
RM 27.7	Protect			
RM 24	Protect/enhance			partial
RM 23	No action		partial	partial

Lower River: Habitat Protection

2018 Side Channel Protection

- 1999: 24 side channels identified
- 1999: 12 of 24 identified for **priority protection**
- 2018: Nine of those 12 have some ownership-based protections

Side Channel	Recommendation	Current form of protection		
		HAG	protected, other	aquatic/shoreline
RM 49	No action			
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RM 36.7	No action			yes
RM 36	-			yes
RM 35.5	Protect	yes		yes
RM 34.7	-			partial
RM 33.3	-		yes	yes
RM 33	Protect/enhance	yes	yes	yes
RM 32	Protect/enhance	yes	yes	yes
RM 31.5	Protect/enhance			partial
RM 30.5	No action			yes
RM 30.5	Protect/maintain		yes	yes
RM 30.3	-			partial
RM 27.7	Protect			
RM 24	Protect/enhance			partial
RM 23	No action		partial	partial

Looking Forward...

- Blue/green LiDAR below Barrier Dam
- Habitat Advisory Group: strategy for final investment
- Gravel: interim and long term changes
- CRR Program: brave new world

Questions?

