WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

PROPOSED
Salmon Recovery Funding Board Meeting Agenda

April 18-19, 2012
Natural Resources Building, Room 172, Olympia, WA 98504

Time: Opening sessions will begin as shown; all other times are approximate.

Order of Presentation:
In general, each agenda item will include a presentation, followed by board discussion and then public comment. The board makes decisions following the public comment portion of the agenda item.

Public Comment:
If you wish to comment at a meeting, please fill out a comment card and provide it to staff. Please be sure to note on the card if you are speaking about a particular agenda topic. Comments about agenda topics are taken when the topic is presented and discussed. The chair will call you to the front at the appropriate time.

You also may submit written comments to the Board by mailing them to the RCO, attn: Rebecca Connolly, Board Liaison at the address above or at rebecca.connolly@rco.wa.gov.

Special Accommodations:
If you need special accommodations to participate in this meeting, please notify us by April 11, 2012 at 360/902-3086 or TDD 360/902-1996.

Wednesday, April 18

OPENING AND WELCOME

9:00 a.m. **Call to Order** *Chair*

- Determination of Quorum
- Review and Approval of Agenda ***(Decision)***
- Adopt revised motion regarding 2011 Puget Sound Region SRFB project allocation to correct total funding amount – see footnote on page 8 of draft minutes.

  Revised motion: Move to approve $6,795,036 in SRFB funds for projects and project alternates in the Puget Sound Region, as listed on Funding Table 2011-07, dated December 8, 2011 ***(Decision)***
- Approve December Meeting Minutes ***(Decision)***

MANAGEMENT AND PARTNER REPORTS (Briefings)

9:05 a.m. **1. Management Status Report**

A. Director's Report *Kaleen Cottingham*
- Letter of Recognition for Congressman Norm Dicks

B. Financial Report *Steve McLellan*

C. Policy and Legislative Report

D. Work Plan and Performance Update (Written report only)

9:20 a.m. **2. Salmon Recovery Management Reports**

A. Governor's Salmon Recovery Office and Monitoring *Megan Duffy*
- Manual 19 Update

B. Grant Management *Brian Abbott*
- Manual 18 Update
- Projects of Note
- Lessons Learned from a Recent Project Lawsuit

10:15 a.m. **BREAK**

10:30 a.m.	**3. Reports from Partners**	
	A. Council of Regions Report	*Jeff Breckel*
	B. Lead Entity Advisory Group Report	*Cheryl Baumann*
	C. Regional Fisheries Enhancement Groups	*Lance Winecka*
	D. Board Roundtable: Agency Updates	*SRFB Agency Representatives*
	General Public Comment: *For items not on the agenda. Please limit comments to 3 minutes*	

BOARD BRIEFINGS

11:15 a.m.	**4. Implications of State and Federal Budgets on Funding Allocation**	
	• Federal Funding for Salmon –	*Megan Duffy*
	o NOAA's New Funding Priorities for 2012 PCSRF	
	o Washington State's 2012 Grant Application	
	o President's 2013 Budget	
	• State Budget Effects for Salmon Recovery	*Steve McLellan*
	• State Budget Effects for Other State Agencies	*SRFB Agency Representatives*
12:15	**LUNCH**	
1:00 p.m.	**5. Options for Addressing Budget Shortfalls**	*Megan Duffy*
	• Staff Briefing and Recommendations for Board Consideration Related to the Budget Reductions	
	Board Discussion: Options for Further Analysis and Consideration, Including Timeframe for Implementation	
3:00 p.m.	**BREAK**	

BOARD DECISIONS

3:15 p.m.	**6. PSAR Grant Awards – Allocate Funds from the 2011 Grant Round**	*Brian Abbott*
3:30 p.m.	**7. Monitoring Recommendations for Allocating Remaining 2011 PCSRF Monitoring Funds**	*Megan Duffy*
4:30 p.m.	**RECESS UNTIL APRIL 19**	

Thursday, April 19

OPENING AND WELCOME

9:00 a.m.	**Call to Order**	*Chair*
	• Determination of Quorum	
	General Public Comment: *For items not on the agenda. Please limit comments to 3 minutes*	

BOARD BRIEFINGS

9:05 a.m.	**8. Puget Sound Partnership Update** • Update on the Action Agenda regarding Salmon Recovery • Update on Partnership Budget • EPA Review Findings	*Marc Daily*
9:45 a.m.	**9. Request for Board Feedback on Update to Communication Plan**	*Susan Zemek*
10:15 a.m.	**BREAK**	
10:30 a.m.	**10. Areas of Policy Focus for 2012**	*Brian Abbott* *Megan Duffy*
11:30 a.m.	**11. Update on Large Woody Debris and Landowner/Sponsor Liability** • Previous Board Discussions • Issues Raised to the Legislature in 2012 • Stream Habitat Restoration Guidelines • Manual 18 Guidance	*Megan Duffy*
12:15 p.m.	**ADJOURN**	

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December 10, 2011

Board and Agency Members
Salmon Recovery Funding Board
Washington State Recreation and Conservation Office
123 Fifth Avenue N, Room 150
Okanogan, Washington 98840

Dear Board and Agency Members,

It is with great pleasure that I extend my congratulations to you and the Salmon Recovery Funding Board for being selected for the Coastal America Partnership award. This award not only demonstrates the Board's strong commitment to restoring the Nisqually Delta, but also its contribution to the highly collaborative and successful effort of the Nisqually Estuary Restoration Team.

I would like to thank the Salmon Recovery Funding Board for its tireless dedication to improving our environment and our community. Through your contribution of time, effort, and expertise, more than 900 acres of the Nisqually Delta have been recovered and important ecosystems have been preserved for Chinook salmon and other wildlife.

The Seattle Times has recognized Nisqually Estuary Restoration project's model of successful partnership and recommends that others "should look to the Nisqually River estuary for inspiration and guidance." I have no doubt that the Coastal America Partnership award is both an indication of a job well done and also the promise of more to come in the ongoing effort to cleanup the Puget Sound.

Again, congratulations on the Salmon Recovery Funding Board's outstanding achievements. If I can ever be of assistance to you or your organization, please do not hesitate to contact my office at (253) 593-6600.

Sincerely,

Adam Smith
Member of Congress
AS:do2

PRINTED ON RECYCLED PAPER

THE SECRETARY OF THE INTERIOR
WASHINGTON

DEC 10 2011

Mr. Donald "Bud" Hover
Chair, Salmon Recovery Funding Board
c/o Okanogan County Board of Commissioners
123 Fifth Avenue North, Room 150
Okanogan, Washington 98840

Dear Mr. Hover:

Congratulations on receiving the Coastal America Partnership Award for the Nisqually Estuary Restoration Team. The award recognizes outstanding partnerships that make a significant contribution towards the restoration and protection of our Nation's coastal environment. It is the only environmental award of its kind presented by the Administration.

Through your collaborative team of tribes, wildlife refuges, Federal and state agencies, local governments, and nonprofit partners, an outstanding environmental victory was achieved for the Pacific Northwest. Your project team is to be commended for working collaboratively for over 15 years to plan, fund, and implement the restoration of over 900 acres of tidal habitat in the Nisqually Delta. Your effectiveness in working together has set an example for others to follow.

Your efforts have resulted in the restoration of natural processes, a rebound in the population of fish and wildlife, and the beginning of the recovery of the entire estuary system. Your team has restored floodplain connectivity to 190 acres of the Nisqually tribal land over the last 14 years and restoration work culminated in the restoration of tides to over 760 acres of Nisqually National Wildlife Refuge land. The restoration projects in the estuary have included 75 acres of riparian surge-plain habitat along the Nisqually River. This is the largest estuary restoration project in the Pacific Northwest, contributing substantially to the recovery of Puget Sound.

The Federal partners of Coastal America applaud and support you in your efforts to improve our coastal environment. Please accept our sincere congratulations and best wishes for your continued success.

Sincerely,

Ken Salazar

Ken Salazar

From:	Ken and Peggy
To:	Connolly, Rebecca (RCO)
Cc:	Peterson, David; Laborde, Sara G (DFW); sara.crumb@mail.house.gov; Barbara Adkins; agouley@skokomish.org; Allan Borden; Small, Doris J (DFW); cdunagan@kitsapsun.com; Arla Shephard; Scott Brewer; Zeigler, Robert C (DFW); Tim Sheldon; Richard Brocksmith; Ramsey, Michael (RCO); Senator Tim Sheldon; Commissioner Bloomfield; Commissioner Ring-Erickson; Josh W. Brown
Subject:	Union River project
Date:	Tuesday, December 20, 2011 7:49:54 AM

Rebecca, I would like the following comments and this email string below shared with the entire SFRB and entered into the official record regarding the Union River project.

December, 20, 2011

Salmon Funding Recovery Board,

I had planned to attend your most recent funding meeting but was unable. As you are aware I have testified before you for the last several years regarding various Union River projects and this particular project since it first surfaced as an acquisition in 2005. I understand that the MDNS, (mitigated determination of non-significance), comments document compiled by WDFW were not entered into your official record until a couple days before your meeting. If I had been notified and been able to attend your meeting I would have asked you to review those comments and postpone your funding decision on this project. I asked WDFW to extend the original comment period as I felt Mason County had not been given proper notification and the original deadline was not adequate. Mr. Zeigler of the WDFW extended that comment period and I appreciate that. I think the SFBD should thoroughly review those MDNS comments as State, Tribal, Mason County representatives and citizens took the time to comment. In my opinion some of those comments would seem to indicate that a full EIS be undertaken on this project or the project abandoned.

I have additional concerns with an December 16 article published in our local North Mason life newspaper. **It was written shortly after your funding decision and before the MDNS comments have been responded to by WDFW.** It is an edition of the Kitsap Sun with a circulation of over 10,000. The article was written about the Theler community center and the author is a founding member of the Pacific NW Salmon Center who is a direct beneficiary of the Union River project. It is a very nice article about the community center however at the end of the article she says, “Starting next spring, the WDFW will begin breaching the Theler trails to allow the inflow of saltwater to increase and enhance precious salmon habitat in the estuary. The project is planned from April through July and careful consideration has been given to the preservation and integrity of the trails during construction. Plans call for a “detour" to be built first to ensure that the trails can remain open during construction. Two elevated bridges will connect with trails in the breached areas. Project partners are already planning an official ribbon cutting for the bridges on October 15, 2012."

The author fails to discuss the lack of peer reviewed science for this project, the removal of 10's of thousands of yards of topsoil and placement of those soils in critical areas to the east of the project. She also fails to mention that the property is

currently zoned as Agricultural Resource land in the Mason County Comprehensive plan.

I find it highly irregular that the project partners are planning an April start date with an October "ribbon cutting" ceremony, all before **the MDNS comments are responded to by WDFW and the zoning issues have been addressed.**

Please reconsider your decision on this project.

Sincerely,

Ken VanBuskirk

61 NE Davis Farm Road

Belfair, Wa 98528

> ----- Original Message ----- From: "Ramsey, Michael (RCO)" <Mike.Ramsey@rco.wa.gov>
> To: "Ken and Peggy" <dukeof@hctc.com>
> Cc: "Connolly, Rebecca (RCO)" <Rebecca.Connolly@rco.wa.gov>; "Small, Doris J (DFW)" <Doris.Small@dfw.wa.gov>; <cdunagan@kitsapsun.com>; "Arla Shephard" <arla@masoncounty.com>; "'Scott Brewer'" <sbrewer@hccc.wa.gov>; "Zeigler, Robert C (DFW)" <Robert.Zeigler@dfw.wa.gov>
> Sent: Wednesday, December 14, 2011 9:09 AM
>
> Subject: RE: public records request
>
> Hi Ken:
> I had anticipated you'd be there, so it was quite a surprise you weren't. I just checked and a courtesy notification didn't go out this year. This was due to an oversight, and not intended. All legally required notifications and procedures for the meeting announcement, however, were met. Unfortunately, the budget cuts have been hard on us too. As a result we're doing what is required and less of the optional elements of our jobs.
>
> Correct. I received the MDNS comments document late in the day (5:03 PM) on Friday, Dec.2, and attached it to the project record in the morning on the next work day, Monday, Dec. 5.
>
> There isn't a formal appeal process, but you're welcome to write the SRFB or come to any of our regularly scheduled meetings and provide comments during the public comment period. It will be a while before implementation begins on this project.
>
> Take care,
>
> Mike Ramsey, SRFB/ESRP Grants Manager
> Washington State Recreation and Conservation Office rco.wa.gov Wrk 360,902.2969 FAX 360.902.3026

-----Original Message-----
From: Ken and Peggy [mailto:dukeof@hctc.com]
Sent: Sunday, December 11, 2011 8:41 AM
To: Ramsey, Michael (RCO)
Cc: Connolly, Rebecca (RCO); Small, Doris J (DFW); cdunagan@kitsapsun.com; Arla Shephard; 'Scott Brewer'; Zeigler, Robert C (DFW)
Subject: Re: public records request

Thank you Michael. I have come before the SFBD the last several years and normally receive an email from the SFBD reminding me of your meetings I just don't recall seeing it. Ms Small did tell me by email about the meeting but it was a while ago. If I had attended I would have asked the SFBD to review the MDNS document before awarding the grant.
I notice the MDNS document was only entered into the record days before the SFBD met.
Please advise me if their is an appeal process?

Ken VanBuskirk

From:	Ken and Peggy
To:	Connolly, Rebecca (RCO)
Cc:	Ramsey, Michael (RCO); "Scott Brewer"; Senator Tim Sheldon
Subject:	question to SFRB board regarding Union River Estuary project
Date:	Thursday, February 09, 2012 1:37:13 PM

Please forward to the SFRB for their consideration.

Click here: Two Belfair salmon groups merge » Kitsap Sun

Does this change in organizational structure affect the status of current grant?

Kitsap Sun

Printer-friendly story
Read more at kitsapsun.com

Two Belfair salmon groups merge

By Christopher Dunagan

Wednesday, February 8, 2012

BELFAIR — Hood Canal Salmon Enhancement Group and Pacific Northwest Salmon Center, both based in Belfair, have merged under a single board of directors with a new mission statement.

The name "salmon enhancement group" will be retained as part of the overall organization. The group will continue to work on salmon enhancement, which includes science projects, habitat restoration and related work.

The umbrella organization will be called the Pacific Northwest Salmon Center, with a continuing goal of building a world-class science and educational center on Lynch Cove in Belfair. The site is the former Jack Johnson farm, where some farming activities remain.

The mission of the overall group: "Protect and enhance the genetic diversity and population of salmon in Hood Canal, establish and conduct a Pacific Northwest science and education center to enhance public knowledge and appreciation of the importance of salmon in the ecosystems, and demonstrate sustainable farming practices that protect water quality and salmon habitat."

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From:	Ken and Peggy
To:	Connolly, Rebecca (RCO)
Subject:	SRFB comments regarding Union River Estuary project
Date:	Saturday, February 11, 2012 6:28:20 AM
Attachments:	Two Belfair salmon groups merge.docx

Rebecca, could you forward the attached document to SRFB? It is in regards to a recent merger of one of the project sponsors of the

Union River Estuary project and I felt the SRFB should be aware.

Thanks

Ken VanBuskirk

Two Belfair salmon groups merge
By Christopher Dunagan, Kitsap Sun
Posted February 8, 2012 at 5:28 p.m.

BELFAIR — Hood Canal Salmon Enhancement Group and Pacific Northwest Salmon Center, both based in Belfair, have merged under a single board of directors with a new mission statement.

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COMMENTS:

February 9, 2012 10:14 a.m.
kvanb writes:

Chris this isnt news! These organizations have been co-mingled since the PNWSC was contrived. Some of these same board directors were fired from the Theler board during that upheaval. They were also instrumental in slowing the progress of the Belfair bypass and trying to site stormwater ponds from the SR-3 widening project on to PNWSC property.

In my opinion
Ken VanBuskirk
http://www.kitsapsun.com/news/2012/feb/08/two-belfair-salmon-groups-merge/

Does this "co-mingling" create a problem for the Salmon Enhancement Group's ability to continue collecting grant funding for enhancement projects? Perhaps that's why they are retaining "salmon enhancement group" as part of the overall mission, so they don't lose that funding? Found an old 2004 article about the state's salmon enhancement groups:

Report details hard work of state's salmon enhancement groups
Belfair Herald, May 6, 2004

In the past decade hundreds of miles of habitat have been restored, several hundred fish passage improvements have been completed and millions of salmon and steelhead have been reared and released into state waters, thanks to the efforts of citizen Regional Fisheries Enhancement Groups (RFEGs).

Those and other accomplishments are detailed in a recently released annual report which can be viewed online at wdfw.wa.gov on the Washington Department of Fish and Wildlife's (WDFW) Web site.

[2011 annual report - http://wdfw.wa.gov/publications/01351/rfeg_annual_fy11_summary.pdf - Hood Canal Salmon Enhancement Group, page 12. Annual reports from 1997 to 2011 - http://wdfw.wa.gov/about/volunteer/rfeg/rfeg_reports.html]

The report gives insight into what other groups across the state that are similar to the Hood Canal Salmon Enhancement Group in Belfair are up to.

"Besides completing hundreds of projects that benefit fish, RFEGs have amplified salmon recovery efforts by raising awareness of recovery goals within local communities across Washington," said Jeff Koenings, who serves as the director of WDFW.

Created by the legislature in 1990, the regional enhancement groups are local, citizen-led organizations dedicated to restoring and protecting state salmon and steelhead. The groups, which have increased in number from 12 to 14, involve local communities, businesses, governments, citizen volunteers and landowners in salmon recovery efforts.

Working within specific watersheds, each enhancement group's members develop and propose projects aimed at fish enhancement and recovery. Traditionally RFEGs have worked with tribal and state fish managers to ensure proposed projects are compatible with laws and fish recovery goals for particular watersheds.

In recent years, RFEGs are increasingly melding their efforts with the priorities of local salmon-recovery lead entities – the local governments, conservation districts, tribes and nonprofit groups that prioritize projects for funding by Washington's Salmon Recovery Funding Board.

"Whatcom County has developed a strong partnership with the Nooksack Salmon Enhancement Association," said John Thompson, the lead entity coordinator with Whatcom County Water Resources.

"The NSEA has proven to be a strong partner for salmon recovery through its participation in lead entity-sponsored processes and projects as well as through its own initiatives," he added. "The ability to find creative solutions that engage the community benefits both the lead entity and the NSEA tremendously."

Among the Nooksack Salmon Enhancement Association's work is the acclimation and release of spring Chinook salmon on the North Fork Nooksack River, which has helped boost the population from a low of 10 natural spawners in 1990 to an estimated 3,687 in 2002.

Other RFEG efforts state-wide include these projects:

* The North Olympic Salmon Coalition annually rears and releases summer chum into Salmon, Chimacum and Jimmy-comelately creeks in the Hood Canal/Strait of Juan De Fuca watersheds,

as part of a federal summer chum recovery initiative. The coalition's efforts have boosted the number of returning summer chum salmon by more than 5,000.

* Skagit and Walla Walla-area RFEGs worked with property owners to place 312 acres of streamside property into conservation easements, and then replanted the stream banks and placed woody debris into streams.

* Through a 20-year land lease, the South Puget Sound Salmon Enhancement Group has created an interpretive trail providing public access to one of the South Sound's healthiest native chum runs. Volunteers act as trail guides to some 5,000 visitors per year, including school groups.

In the past eight years alone, RFEGs have collectively spent 557,000 volunteer hours – the equivalent of 276 full-time employees – completing more than 1,500 salmon projects, including estuary restorations, re-vegetation, surveys, research and stewardship and education programs. The projects include nearly 400 improvements for fish passage, restoration of 300 miles of rivers and streams, release of more than 50 million fish and distribution of 340,000 salmon carcasses to provide nutrient enhancement to watersheds.

Besides tackling on-the-ground salmon recovery projects, RFEGs have obtained donations from businesses and individuals, and grants from government agencies and private entities. Since 1995, the state's RFEGs have leveraged $10.3 million of state and federal funding into an additional $49.6 million through partnerships and collaborations with individuals, groups, corporations, tribes, foundations and agencies.

© Belfair Herald

From:	Ken and Peggy
To:	Connolly, Rebecca (RCO)
Cc:	Senator Tim Sheldon; Ramsey, Michael (RCO)
Subject:	Union River Estuary Project, Mason County
Date:	Thursday, April 05, 2012 8:12:55 PM

Please forward to the Salmon Recovery Funding Board. thank you.
Ken VanBuskirk

----- Original Message -----
From: Ken and Peggy
To: BelfairAreaRoundTable@yahoogroups.com
Cc: Tom Moore ; John Cunningham ; Barbara Adkins ; rbrocksmith@hccc.wa.gov
Sent: Thursday, April 05, 2012 7:38 AM
Subject: Belfair Citizen advisory group, Union River, adjusting UGA boundaries

Given all the recent news here in Belfair about the sewer phasing, grant writing for the Old Belfair highway phase of the sewer, UGA boundaries,and the formation of a citizen advisory group I find it interesting that the Hood Canal Salmon Enhancement Group has recently submitted a letter of interest to pursue a $125,000 grant to do an assessment of the Union River to help them determine where habitat improvements can be made and help guide them in salmon habitat priorities in the Union River, upriver of the estuary.

"HCSEG and other organizations involved in the Summer Chum Conservation Initiative believe that the Union River has reached its carrying capacity due to degraded habitat." This shouldn't be a surprise to anyone, just look at aerial photos of the Union River Valley from 10 years ago.

Prior to "supplementation" the chum population was considered stable with 500 fish returning each year to spawn. From 2000 to 2003 "supplementation" began and from 2003 to 2007, 5000 fish returned annually.
The count has now declined to a low of **276 fish this last year**.
https://hcccwagov.box.com/s/fbcce9a30b81a3ce6122
At one time I remember that king salmon were also supplemented by the HCSEG. What happened to that population?

Looks to me like the cart was put in front of the horse regarding the Union River Estuary Restoration effort which proposes to breech the Theler dikes and flood productive farm land, Shouldn't the carrying capacity of the river been ascertained first?

Definitely food for thought. Something I will ask our new advisory group and funding agencies to consider when looking at the UGA boundaries and the potential impact of future development in the Union River Valley.

Best Ken.

Salmon Recovery Funding Board Summarized Meeting Agenda and Actions, December 8, 2011

Agenda Items without Formal Action

Item	Follow-up Actions
Management Report	None
Salmon Recovery Management Reports – Grants	None
Reports from Partners/State Agency Partner Reports	None
Manual 19	Staff will update the board in April 2012.
Data Results of Forest and Fish Agreement	None

Agenda Items with Formal Action

Item	Formal Action	Follow-up Actions
Minutes	APPROVED as presented	No follow-up activities
Salmon Recovery Management Reports – GSRO	APPROVED $287,000 for Effectiveness Monitoring	Tetra Tech to provide a briefing to the board (April) Staff to present the proposals to implement the recommended monitoring efforts (April)
Schedule for 2012	APPROVED the 2012 meeting schedule	Staff to determine location for September meeting
Addressing General Fund Budget Reductions	APPROVED that any cuts up to 5 percent in lead entity state general fund dollars in the current biennium would be backfilled with returned federal PCSRF funds	Staff to provide a variety of options for dealing with budget reductions (April)
2011 Grant Round	APPROVED project lists as presented for the 2011 grant round.	None
Manual 18 Administrative Changes	APPROVED 2012 grant cycle schedule	Staff to present policy ideas and recommendations to the board for direction on further work (April)
Manual 18 Appendix B	APPROVED Option 2, which changes Appendix B to eliminate the subcommittee, grant greater authority to the director, and add appeal process.	None

SALMON RECOVERY FUNDING BOARD SUMMARY MINUTES

Date: December 8, 2011
Place: Room 172, Natural Resources Building, Olympia, WA

Salmon Recovery Funding Board Members Present:

Bud Hover, Chair	Okanogan County	**Melissa Gildersleeve**	Department of Ecology
David Troutt	DuPont	**Sara LaBorde**	Department of Fish and Wildlife
Harry Barber	Washougal	**Craig Partridge**	Department of Natural Resources
Josh Brown	Kitsap County	**Carol Smith**	Conservation Commission
Phil Rockefeller	NWPCC		

It is intended that this summary be used with the notebook provided in advance of the meeting. A recording is retained by RCO as the formal record of meeting.

Opening and Welcome

Chair Bud Hover called the meeting to order at 9:00 a.m. and a quorum was determined.

Josh Brown moved to adopt the agenda.
Seconded by: Harry Barber
Motion: APPROVED

Josh Brown moved to adopt the August/September minutes.
Seconded by: Harry Barber
Motion: APPROVED

Management and Partner Reports

Management Status Report

Director's Report: Director Cottingham discussed the trip that she and Sara LaBorde made to Washington DC. She also noted that the National Oceanic and Atmospheric Administration (NOAA) is doing a programmatic review of spending under Pacific Coastal Salmon Recovery Fund (PCSRF). The review will begin on December 22.

Legislative Update: Steve McLellan noted the work to date in the special legislative session. He also noted that the major recommendation of the debt limit commission is to change the averaging period for calculating the debt limit. This approach would lower overall debt capacity over time, but also would smooth it out. Director Cottingham noted that we have been asked to provide lists of Family Forest Fish Passage Program (FFFPP) projects that could be funded with additional capital funding.

The board had no questions on the policy report or performance management reports.

Salmon Recovery Management Reports

Governor's Salmon Recovery Office: Megan Duffy, Executive Coordinator for the Governor's Salmon Recovery Office (GSRO), reminded the board that they had awarded $250,000 for Puget Sound Steelhead planning in May. She noted that they are waiting for two documents from the Puget Sound Partnership to help them strategically direct the funding. They are working with others in Puget Sound to decide how to direct the funds.

She also noted the Monitoring funding for Tetra Tech, and that the board would need to authorize continuation due to a lag between the end of the contract and the board's next meeting. She noted that Tetra Tech would provide a briefing to the board in April on the current status and findings of the program. Also in April, staff will present the final recommended proposals and request approval to create and enter contracts to implement the recommended monitoring efforts. Director Cottingham provided some context for the monitoring funding

Josh Brown moved to approve $287,000 for continuation of the board's Effectiveness Monitoring Program.
Seconded by: Harry Barber
Motion: APPROVED

Grant Management: Brian Abbott, Salmon Section Manager, reviewed sections of the grant management report (Item #2B), and highlighted the issue of projects on state owned aquatic lands. Staff has been exploring the issue with the Department of Natural Resources (DNR) because there needs to be a process to involve them early in the grant cycle when DNR is the landowner for a project. Member Partridge noted that DNR appreciates RCO staff involvement. He stated that as a landowner, DNR is concerned about engineered logjams (ELJs) in the rivers because they need to be concerned about health and safety issues, as well as salmon recovery. They want to be sure that licensed engineers have approved the designs.

Chair Hover asked how DNR determined that they have authority over the aquatic lands. Member Partridge responded that it is case-by-case adjudication, and they are trying to do this based on the guidelines from each case. Member Troutt asked if the issue was changes to the landscape. Member Partridge responded that it's strictly health and safety since the land is open to public recreation. Member Brown asked if DNR is worried only about projects on state lands, or also those above state lands where something could break off and cause a problem down river. The board discussed the broader issue of liability concerns.

Megan Duffy reminded the board that they addressed ELJs in 2009, and directed staff to work with other state agencies, particularly the Washington State Department of Fish and Wildlife (WDFW) as it updated the Aquatic Habitat Guidelines. These updated guidelines will be completed this year and contain a specific appendix related to safety of in-stream structures.

General Public Comment

There was no general public comment.

Partner Reports

Council of Regions Report: Jeff Breckel noted that they are working on the State of the Salmon report and trying to find ways that state agencies can help them achieve recovery goals. They sent a letter to Will Stelle, USFWS, to improve their partnership. They also have been working with Phil and others to talk about how programs in the Columbia basin can be better coordinated.

Lead Entity Advisory Group (LEAG) Report: Cheryl Baumann presented the LEAG report as described in the board materials. Carol Smith asked about the potential conflicts of interest; Cheryl responded that it is a matter of deciding who is voting on projects, looking at the technical committees, and considering who the fiscal agents are.

Regional Fisheries Enhancement Groups (RFEGs): Lance Winecka presented the RFEG report as provided in the board meeting materials. He and the board discussed the different partners and funders that the RFEGs work with.

State Agency Partners

Carol Smith, Conservation Commission, noted that they work with 47 conservation districts and the budget is going from tough to tougher. The federal Conservation Reserve Enhancement Program (CREP) program provides 80% of their funding; but to get it, they need the 20% from the state. They got about half of the amount needed in the current budget. Many of the salmon recovery plans rely on CREP, but it won't be there. Districts are trying to get grants, but it is tough in this economy.

Sara Laborde, Department of Fish and Wildlife, said they have lost 40% of the general fund dollars in last four years. This is going to be a tough six months, but some things are moving forward. The alternative fishing gear project has just completed the first year of testing and tracking. They will have good information in February. The Hatchery Scientific Review Group (HSRG) will be sending WDFW their review of hatchery reform projects. WDFW just sent out a beta site link for their salmon reporting engine. It went to recovery boards, but it is getting more widespread review.

Craig Partridge, Department of Natural Resources, noted that the presentation on the Forest and Fish presentation would be later in the day. As PCSRF funding has declined, funding for the program also has declined. They have put together a multi-stakeholder process to turn the program into the leanest program possible, seeking efficiencies. They have stopgap funding to keep others participating.

Melissa Gildersleeve, Ecology, they also are dealing with the federal match issue because of the state general fund cuts. The new federal money is centered on Puget Sound, and some will offer administrative cost reimbursement. She noted in particular funds for "hobby farms." They had $30 million in grants to local governments for stormwater; all but $8 million was cut.

Board Decisions

The board took action on several topics, as follows.

Schedule for 2012

Rebecca Connolly presented the proposed schedule for 2012 as described in the board materials. There were no board questions.

Phil Rockefeller moved to adopt the schedule
Seconded by: Josh Brown
Motion: APPROVED

Addressing General Fund Budget Reductions

Megan Duffy presented the information as described in the staff memo to the board. She also provided updates on the amount of federal PCSRF funds that the Recreation and Conservation Office (RCO) is now anticipating. She noted that the lead entities are not funded equally, and that the amount of other sources varies, so the cuts are not felt equally by all lead entities.

Chair Hover asked if there would be further adjustments. Director Cottingham noted that the legislature could make additional cuts to the lead entity program, and that this proposal would cover only up to 5 percent. Member Rockefeller asked if this would exhaust the returned funds. Megan responded that it would not.

Member Troutt asked for specific implications of the cuts, if they were put in place. Megan noted that one region had reported that it would cut a staff person, and that some lead entities suggested they may no longer be able to operate.

Member Barber noted that they need to be cognizant of the ratio of staff costs to project costs. Megan responded that it would be part of the analysis in April. He noted that the amount of cut is relatively small, and referenced the cuts being taken by other state agencies.

Member Partridge noted that he was interested in the Review Panel's comments about the administrative complexity for larger projects, and that it should be a consideration for the board.

Lloyd Moody noted that the many of the lead entities are receiving less in-kind support from the counties, and that the Puget Sound lead entities have lost funding from PSAR capacity.

Member LaBorde noted that it is a systemic problem, and that cuts are felt at all levels. She advised that the structure needs an overall review, and that they need to really dig in and find cuts.

Member Troutt noted that the discussion would take place in April, and that he will always prefer to fund lead entities over projects. The human infrastructure is key, and they are coming together well on projects.

Bud noted a need to look at whether they can restructure lead entities and still do the job. He asked staff to provide a variety of options for dealing with cuts in April 2012.

David Troutt moved to adopt that any cuts up to 5 percent in lead entity state general fund dollars in the current biennium be backfilled with returned federal PCSRF funds.
Seconded by: Josh Brown
Motion: APPROVED 4-1, with Harry Barber opposing.

2011 Grant Round

Salmon Section Manager Brian Abbott reviewed the funding report, grant round process, regional allocations, and the projects within each region. He noted that the spreadsheets provided to the board for voting include project alternates, and explained some changes that took place after the funding report was mailed in mid-November. There are no remaining projects of concern because the sponsors either addressed the concerns or withdrew the project. He explained that there are eight noteworthy projects this year, which are spread across the state. The regional directors and grant managers provided additional detail about projects in the Puget Sound, Upper Columbia, and Lower Columbia regions.

Review Panel members Kelley Jorgenson and Steve Toth spoke about the Review Panel's observations, which are described in detail in the funding report. They highlighted three areas:

- *Process-based restoration:* Toth suggested that there be incentives for lead entities to focus on process-based restoration. He noted that more planning is needed by the regions and lead entities to work on this larger approach.
- *Effectiveness Monitoring:* Jorgenson noted that process-based restoration gives more credence to effectiveness monitoring. She noted that they think the board should broaden the effectiveness monitoring and close the loop with analysis and interpretation. They think monitoring should be allowed as a match to project funds.
- *Prioritizing:* Jorgenson noted that the Review Panel thinks that the board should consider prioritization of watersheds for funding.

The regional directors then presented information about their project selection processes and activities in the region. All thanked the board, review panel, and RCO staff for their work.

Steve Martin, Snake Region, praised the review panel and stated that they supported the conditioned project. He echoed David's comment that there needs to be greater regulation to protect the critical areas.

Alex Conley, Middle Columbia, described the structure and coordination of the organizations in his area and noted how they have divided the allocation with the Klickitat Lead Entity. He highlighted the habitat types in the region, and the projects on their list. He noted that they updated their lead entity process so it would be more transparent. In response to a question from Member LaBorde, he provided an update on the project approved with a condition in the 2010 cycle. The project is now being reviewed by the Review Panel. Member Troutt referenced the NOAA audit, and asked if they are funding the most important projects. Alex responded that it is harder to fund those with board grants because they are bigger and more complex. All projects are consistent with the recovery plan.

Jon Foltz, Klickitat Lead Entity Coordinator, presented information about the lead entity's projects on the 2011 list.

Derek Van Marter and Julie Morgan, Upper Columbia Region, discussed implementation of the recovery plan during 2010 and the complexities of that implementation. Complexities include the judge's opinion on the BiOp and the Governor's response. He also discussed the 2011 project list, noting that it represents years of collaborative work to match projects with funding. He noted the barriers they are facing to placing wood in the rivers. Julie noted that they are addressing the highest priorities and are focused on abundance. They have resources for project implementation; SRFB dollars are pivotal because the funds can be used for protection/acquisition, while other funds can be used only for restoration.

Jeff Breckel, Lower Columbia Region, noted that the lists are the result of many years of work with nonprofits, land trusts, RFEGs, and other sponsors as well as landowners. He noted that they were able to fund projects in only eight of seventeen subbasins. All of this year's projects address a primary species and either a Tier 1 or Tier 2 reach, so they are targeting the areas, but many are missed due to resources. He credited sponsors for their work putting solid projects on the ground.

Miles Batchelder, Coastal Region, noted that they are new and have an absence of listed species, and thanked the board for their support. The board has provided financial support for the development of the lake Ozette Sockeye Plan. They lack sponsors in the Lake Ozette basin, but they are hoping that the Makah Tribe will be able to help in the future. He thanked the board for freeing up the funds from the Bear River project. Some local communities are hesitant to use public funds for salmon recovery acquisitions; this is something that they are working through with community outreach. He also updated the board on their planning process and reviewed the project list for 2011, noting the costs, benefits, and challenges of the projects.

Richard Brocksmith, Hood Canal described their organizational structure and their partnerships in the area. He reviewed the project list and how they prioritize the projects and species. The list focuses on priority systems and limiting factors within them. They have very large-scale projects that they can't fully address with the funding available. As they get more strategic and work through Low-hanging fruit, they are asking more of sponsors in terms of unfunded design to go from the concept to a full application. He acknowledged that the applications were not the best quality this year, but they are putting improvements in place. They agree with the conditions placed on projects by the Review Panel. Josh Brown noted that lead entity also is trying to use the mitigation dollars from the military projects in the area to advance salmon recovery projects.

Jeannette Dorner, Puget Sound Region noted that this process is very efficient and respectful of the bottom-up process. The process has evolved and is effective at putting good projects on the ground. She noted all of the various partners. She reminded the board that the decision today is the result of a year's worth of work to build the lists, update strategies, and review projects at multiple levels. She noted that some of the lead entities have not used their full PSAR allocation, and that they intend to bring projects forward in early 2012.

Nick Bean, Lead Entity Coordinator WRIA 62, noted that this was the smoothest process for them to date. Their list has no conditions or projects of concern; he reviewed the three projects that are proposed for funding. He noted the major efforts in the northeast. Two of the three hydroelectric dams were relicensed; they now have plans to restore many miles of the river and its tributaries. The SRFB plays a critical role as they try to coordinate efforts.

DAVID TROUTT moved to approve $1,598,400 for projects and project alternates in the Snake River Region, as listed on Funding Table 2011-01, dated December 8, 2011.
Seconded by: **Josh Brown**
Motion: **APPROVED**

DAVID TROUTT moved to approve $1,776,600 for projects and project alternates in the Mid-Columbia Region, as listed on Funding Table 2011-02, dated December 8, 2011.
Seconded by: **Josh Brown**
Motion: **APPROVED**

Director Cottingham noted that the motion for the Mid-Columbia includes the funding for the Klickitat lead entity. The board affirmed that it was their intent.

DAVID TROUTT moved to approve $1,953,000 for projects and project alternates in the Upper Columbia Region, as listed on Funding Table 2011-03, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

DAVID TROUTT moved to approve $2,700,000 for projects and project alternates in the Lower Columbia Region, as listed on Funding Table 2011-04, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

Chair Hover noted that this motion for the Lower Columbia also includes the Klickitat lead entity.

DAVID TROUTT moved to approve $1,815,989 for projects and project alternates in the Coastal Region, as listed on Funding Table 2011-05, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

DAVID TROUTT moved to approve $1,195,165 in SRFB funds for projects and project alternates in the Hood Canal Region, as listed on Funding Table 2011-06, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

DAVID TROUTT moved to approve $1,988,415 in PSAR funds for projects and project alternates in the Hood Canal Region, as listed on Funding Table 2011-06, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

DAVID TROUTT moved to approve $7,567,200 in SRFB funds for projects and project alternates in the Puget Sound Region, as listed on Funding Table 2011-07, dated December 8, 2011.[1]
Seconded by: Josh Brown
Motion: APPROVED

DAVID TROUTT moved to approve $9,601,127 in PSAR funds for projects and project alternates in the Puget Sound Region, as listed on Funding Table 2011-07, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

[1] This motion stated the wrong total funding amount; it incorrectly included the portion of Puget Sound funds that are reallocated to the Hood Canal Region. The correct amount is $6,795,036. This is the total of the lead entity allocations shown on Funding Table 2011-07. The amounts approved for each Puget Sound Lead entity and for Hood Canal Region are correct. The board will be asked to approve a revised motion in April to correct the error.

David Troutt noted that the remaining PSAR balance would be awarded at a future funding meeting in 2012 following the process outlined in Manual 18 Appendix P.

DAVID TROUTT moved to approve $360,000 for projects and project alternates in the Northeast Region, as listed on Funding Table 2011-08, dated December 8, 2011.
Seconded by: Josh Brown
Motion: APPROVED

Chair Hover noted that there are thousands of hours of work preceding these decisions.

Manual Changes for 2012 Grant Cycle: Manual 18 Administrative Changes

Brian Abbott presented the policy and administrative changes as described in the staff memo. He explained that at this meeting, the board would be voting only on the administrative changes. Staff will bring the policy issues to the board in April 2012 for further discussion and direction. He also described the stakeholder input process for the administrative changes.

Director Cottingham noted that although the memo called for approval of the administrative changes, the board needed to approve only the grant round schedule because administrative changes can be done with director approval.

David Troutt moved to approve to approve the 2012 grant round schedule.
Seconded by: Josh Brown
Motion: APPROVED

Manual Changes for 2012 Grant Cycle: Manual 18 Appendix B

Brian Abbott presented the three options for updating Appendix B, which covers the role of the subcommittee and/or the director in approving contract amendments, along with details, advantages, and disadvantages, as described in the staff memo. The three options are:

- Option 1 – Use existing Appendix B matrix and process.
- Option 2 – Update Appendix B. Add appeals process.
- Option 3 – Use existing Appendix B, but move to consent agenda format for decision making. Add appeals process.

Member Smith asked how many amendments are processed each year. Brian responded that they have processed 39 that are "subcommittee eligible"; that is, the director may approve it or forward to the subcommittee. Nine have gone to the subcommittee.

Member Barber noted that the process is cumbersome, but not time consuming. Chair Hover noted that his concern is to balance administrative decisions and the board's decision making role.

Board members preferred Option 2, but asked that decisions be included in the grant management report.

Harry Barber moved to adopt Option 2 as presented.
Seconded by: Phil Rockefeller

Motion: **APPROVED**

Board Briefings

Manual Changes for 2012 Grant Cycle: Manual 19

Megan Duffy, GSRO Executive Coordinator, briefed the board on the revisions to the lead entity manual. Some key issues needing guidance include:

- Avoiding any conflicts of interest, particularly when a lead entity is acting as project sponsor.
- When public outreach is required on specific projects and what responsibility does a lead entity have versus a project sponsor or others?
- The role of a lead entity in submitting the project list to the board.
- Defining appropriate representation on a lead entity citizens' committee.
- Thresholds for defining a quorum.

Staff will continue to work with the lead entities to develop Manual 19 revisions and provide a briefing to the board at its April 2012 meeting.

Data Results Associated with Forest and Fish Agreement Funded with PCSRF Funds

Brian Abbott and Jim Hotvedt, DNR Forest Practices Division, presented information about the following:

- The Forest Practices Adaptive Management Program
- Funding of the adaptive management program
- Products/outcomes of Pacific Coastal Salmon Recovery Fund funding of the adaptive management program

Hotvedt reviewed the history of the Forest and Fish adaptive management program and presented a diagram showing how the program elements and participants interact. He noted the separation of policy, operations, and science to protect the integrity of the process.

He noted that the purpose of the program is to provide science-based recommendations and technical information to assist the board in determining if and when it is necessary or advisable to adjust the rules and guidance for aquatic resources to achieve resource goals and objectives. He then described the types of monitoring used and the responsibility for its management.

Hotvedt noted that they had received about $25.6 million in grants for the adaptive management program, and described the changes in expenditures over time. Initially, funds were used for information systems, but over time, most has been spent on actual monitoring. He noted that there were 97 research and monitoring projects associated with the funding, and highlighted examples of the work completed. The examples are included in the full report provided with the board materials. Hotvedt also noted the outcomes of the projects, including changes to forest practice rules and guidance.

Member Rockefeller asked how open the process is when deciding whether a topic will be studied; for example, he asked if the public could request an area for study, or if the commissioner can request an area be studied. Hotvedt responded that the public or others could propose studies or changes to the board; the board would then refer it to the policy group for assessment.

Member Troutt asked if there were any significant rule changes that have resulted. Hotvedt described changes that increased the target for tree density in riparian areas. Member Brown asked how many rules were changed over time, noting it would be good to understand where the investment was helpful and influential. Hotvedt responded that the measure shouldn't necessarily be how many rules have been changed.

Member Partridge noted that this is an informational presentation about a regulatory process that runs parallel to the board's funding program, and that the rules were based on the best available science at the time. They need to find appropriate funding sources to continue this program, but do need to find ways to streamline it.

Members Rockefeller and Troutt reminded the board of the history of the legislation, noting that they hope that the rules are changing in response to the information gathered with board funding.

Meeting adjourned at 4:00 p.m.

Approved by:

_____ _____

Bud Hover, Chair Date

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **1A**

Meeting Date: April 2012

Title: Director's Report

Approved by the Director: Kaleen Cottingham

Summary

This memo is the director's report on key agency activities. To minimize duplication, some items that might normally be included in the director's report have been deleted here and included in other memos throughout the notebook (such as the policy director's report, legislative update, and the grant manager's report).

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Supporting and Implementing Grant Management

Operations Manual Completed

I am happy to report that the *Operations Manual* is complete. Thanks to Marc Duboiski, Darrell Jennings, Tara Galuska, and Kammie Bunes for getting it started, and Leslie Ryan-Connelly for filling in the gaps and bringing it all together. The manual documents general operating procedures for RCO grants staff and provides basic instructions, work processes, resources, and tools for grants managers.

Salmon Board and RCO Receives Award

The Salmon Recovery Funding Board and RCO were given the Coastal America Partnership Award for our contributions to the restoration of the Nisqually Delta. In a letter of congratulations, Congressman Adam Smith wrote, "I would like to thank the Salmon Recovery Funding Board for its tireless dedication to improving our environment and our community. Through contribution of time, effort, and expertise, more than 900 acres of Nisqually Delta have

been recovered and important ecosystems have been preserved for Chinook salmon and other wildlife." This award comes from President's Council on Environmental Quality and is one of the highest recognitions given for work to protect our coastal environments.

Outreach Activities

Public Events and Speeches

- **Agriculture and Forestry:** I joined my fellow natural resource agency directors to talk about our roles and responsibilities to the Washington Ag-Forestry leadership class.
- **Two Washington D.C. Trips**: In November, I spent several days in Washington D.C. meeting with our congressional delegation and federal agency staff. My goal was primarily to thank congressional delegation members for their unfailing support for the federal Pacific Coastal Salmon Recovery Fund, which provides more than half the funding for salmon recovery grants. I met with the director of the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, as well as Congressman Norm Dicks, Congressman Jay Inslee, and staff for Congresswoman Cathy McMorris-Rodgers, Congressman Doc Hastings, and Senators Patty Murray and Maria Cantwell.

  Then in early March, I was invited to the **White House Conference on Conservation**. Presentations were made by President Obama, Secretary of Interior, Secretary of Agriculture, head of the Army Corps of Engineers, director of the Environmental Protection Agency, and the director of the President's Council on Environmental Quality. This was an opportunity for them to highlight priorities of the President's Great Outdoors Initiative.
- **Central Puget Sound Regional Open Space Strategy:** I've been asked to serve on the executive committee for a new effort aimed at creating a shared open space strategy for Central Puget Sound. The effort is aimed at improving regional planning for open space, working both from the grassroots and from governmental approaches. The first meeting will be in January. The unifying goal of the strategy is to nurture a sense of regional community based on the abundant and awe-inspiring resources of the region.

Helping Our Partners Celebrate

RCO staff attended an open house hosted by Forterra to celebrate the organization's recent accomplishments on the Olympic peninsula. RCO was acknowledged for its funding of a conservation easement on Pope Resources property in Kitsap and Mason Counties that protects land along the headwaters of Union River and Bear Creek. Pope Resources will continue to manage the land for timber harvest but with larger buffers along the water than are protected under Forest Practices regulations. The conservation easement was funded by the Salmon Recovery Funding Board and a donation by the landowner.

RCO Management Activity

State-Tribal Meetings on "Treaty Rights at Risk" Document

Megan Duffy, Steve McLellan, and I (with an assist from Mike Ramsey) have been attending a number of meetings between state agencies and tribal representatives spurred by the release of a tribal white paper on the treaty implications of declining salmon runs. The discussions have focused on how the state and tribes can better align policies and programs to protect and recover salmon more effectively. These discussions likely will continue during the next several months. While some issues, such as storm water and development regulation, are beyond RCO's purview, others likely will involve land acquisition and restoration.

New Federal Priorities for Salmon Recovery Funding

The National Oceanic and Atmospheric Administration (NOAA) has established four priorities for salmon recovery funding. We receive the majority of our funding for our salmon recovery projects from NOAA through a federal Pacific Coastal Salmon Recovery Fund grant. The new priorities will change the way we write our application for the grant, which is due April 23. More information is in memo #4.

Natural Resources Subcabinet Focuses on Salmon Recovery

The Natural Resource Subcabinet heard a presentation from Tom Karrier and Phil Rockefeller, Washington's members on the Northwest Power and Conservation Council. The two highlighted the potential efficiencies and effectiveness of working with the Columbia basin regional salmon recovery organizations to coordinate monitoring efforts conducted with funding from the Salmon Recovery Funding Board and Bonneville Power Administration. The expiration of the Monitoring Forum left a gap in coordinating efforts. There is recognition that monitoring can help leverage recovery funding and show the results of our recovery investments. This is important for both the federal court action (regarding the Biological Opinion on the Columbia River Power System) and for measuring the status of recovery efforts under the various recovery plans.

RCO Begins LEAN effort

RCO began efforts to implement the "Lean" process, as directed by a new Governor's executive order. "Lean" is a term that comes from efforts by Toyota (and to some extent earlier efforts in the U.S. auto industry) to improve their manufacturing processes. What it means to RCO is that we continually improve our processes to make them more efficient or more usable by our customers. We are using "Lean" principles as part of the development of our electronic billing system and to revise the process for answering policy questions.

Grant Management across State Agencies

In October, the State Auditor's Office released an audit report on state grants. The report recommended that the Office of Financial Management (OFM) develop a clear definition of state grants and provide guidance on grant management to help ensure consistency across state agencies. In response to these recommendations, OFM has initiated research into best practices in grant management. Additionally, they have created a work group to formulate guidance, develop tools, and identify resources for grant management. Some of the topics to be addressed include risk assessment, monitoring, documentation, and overhead allocation. Mark Jarasitis will be our designee to this group.

Employee News

Rachael Langen, RCO's deputy director, retired at the end of February. She has taken a post-retirement position as the operations manager of South Puget Sound Habitat for Humanity. **Scott Robinson** has been appointed as acting deputy until we decide whether to permanently fill the position.

Jim Anest will be retiring as the RCO compliance specialist at the end of March. **Leslie Ryan-Connelly** has been selected to replace him and will have some overlap to make sure that all the compliance efforts transition smoothly.

Tauren Ibarra has been selected to fill a vacant fiscal analyst position. Tauren transitioned from the administrative role for the salmon section to the fiscal office in mid-March.

Update on Sister Boards

Recreation and Conservation Funding Board (RCFB)

In January, Governor Chris Gregoire appointed Twisp resident Ted Willhite to serve on the RCFB. All five governor-appointed board members have now been confirmed by the Senate.

The RCFB met on March 21 in Olympia. This was the first time an RCFB meeting was Webcast via TVW. Following the standard management reports, the board reviewed its existing policy for declaring a facility obsolete, as well as a recent application of that policy. Members concurred with the staff recommendation and approach. The board also approved a staff proposal to award the remaining Youth Athletic Fund dollars to eligible WWRP local parks category projects; doing so is the most efficient way to expend the small amount in the account. Much of the meeting focused on the board subcommittee's policy proposals for programmatic allowable uses. Board members asked a number of questions, discussed the policies at length, and ultimately agreed that the policies were ready to be published for public comment.

Washington Invasive Species Council

Wendy Brown, who staffs the Invasive Species Council within RCO, worked hard to get a $225,000 Environmental Protection Agency grant for the council to conduct the second phase of a baseline assessment of invasive species around Puget Sound. The council recently completed the first phase of a baseline assessment of 15 high-threat species in Puget Sound. This new grant will extend that work to look at more species.

The Invasive Species Council met December 1st and heard an update on status of the incorporation of invasive species considerations in the guidelines for the State Environmental Policy Act (SEPA). The council also identified opportunities for additional regional partnerships (similar to the 'Don't Move Firewood' outreach campaign) and began development of its 2012 work plan. On board for 2012 will be to work with our federal members to bring invasive species considerations into their internal review process for the National Environmental Policy Act (NEPA).

Staff participated in the National Invasive Species Awareness Week meeting, Feb 27–March 2, in Washington D.C.

Habitat and Recreation Lands Coordinating Group

The lands group finalized the first *Biennial State Land Acquisition Performance Monitoring* report to show whether state agencies achieved their initial acquisition project objectives. The report is online at www.rco.wa.gov/documents/hrlcg/2011StateLandAcquisitionMonitoringReport.pdf.

In March, the lands group held the Fourth Annual State Land Acquisition Coordinating Forum. The annual forum is an opportunity for people to learn what land state agencies plan to purchase in the next two years. The agencies showed maps and other information about planned projects and explained why the projects are important state investments.

A bill to extend the Habitat and Recreation Lands Coordinating Group passed the Legislature and is awaiting action by the Governor.

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STATE OF WASHINGTON

RECREATION AND CONSERVATION OFFICE

April 18, 2012

The Honorable Norm Dicks
2467 Rayburn House Office Building
Washington, DC 20515

Dear Representative Dicks:

On behalf of all Salmon Recovery Funding Board members, partners, and staff -- past and present – we wish to thank you for your unwavering dedication to salmon recovery and protection during your decades in Congress. You are well known as a champion for environmental issues in our state. Your success in bringing federal funding to projects that protect and restore salmon habitat has had an impact that will be realized for generations.

You played an integral role in creating the Pacific Coastal Salmon Recovery Fund (PCSRF) in 1999. Since then, PCSRF has awarded over $300 million to Washington State for hatchery and habitat efforts that are integral to salmon recovery. You also have brought significant funding to our state for scientific studies, Puget Sound cleanup, monitoring work, Mitchell Act hatcheries, and salmon enhancement groups. The broad reach of these efforts is testament to your understanding of the complex nature of salmon recovery.

The Salmon Recovery Funding Board works with partners throughout the state, including tribes, regional organizations, state agencies, lead entities, non-profits, local governments, and conservation districts. On behalf of ourselves and all partners, we applaud your dedication to public service and your tireless advocacy for salmon populations in Washington State. We wish you nothing but the best in your retirement.

Sincerely,

The Salmon Recovery Funding Board

Bud Hover Chair	Harry Barber Citizen Member	Josh Brown Citizen Member	Phil Rockefeller Citizen Member	David Troutt Citizen Member
Craig Partridge Department of Natural Resources	Sara LaBorde Department of Fish and Wildlife	Carol Smith Conservation Commission	Melissa Gildersleeve Department of Ecology	Mike Barber Department of Transportation

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **1B**

Meeting Date: April 2012

Title: Management Status Report: Financial Report

Prepared by: Mark Jarasitis, Chief Financial Officer

Approved by the Director: Kaleen Cottingham

Summary

This financial report reflects Salmon Recovery Funding Board (board) activities as of March 19, 2012. The available balance (funds to be committed) is $11.8 million.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Summary of Board Balances

Fund	Balance
Funds to be Awarded by the Board	
Current state balance	$4,014,394
Current federal balance – Projects	$143,953
Current federal balance – Activities	$3,903,488
Puget Sound Acquisition and Restoration (PSAR) & Puget Sound Restoration (PSR)	$1,671,239
Puget Sound Critical Stock	$68,260
Other Funds to be Awarded	
Family Forest Fish Passage Program (FFFPP) – Awarded by DNR	$894,463
Estuary and Salmon Restoration – Awarded by DFW	$1,088,000
Lead Entities	$0

Salmon Recovery Funding Board Budget Summary

For the Period of July 1, 2011 - June 30, 2013, actuals through 02/2011 (fm08); reported 03/19/2012
Percentage of biennium reported: 37.5%

	BUDGET	COMMITTED		TO BE COMMITTED		EXPENDITURES	
	new & reapp. 2011-13	Dollars	% of budget	Dollars	% of budget	Dollars	% of comm
GRANT PROGRAMS							
State Funded 03-05	$829,178	$829,178	100%	$0	0%	$439,034	53%
State Funded 05-07	$1,992,436	$1,992,436	100%	$0	0%	$504,697	25%
State Funded 07-09	$3,337,100	$3,337,100	100%	$0	0%	$288,059	9%
State Funded 09-11	$4,919,460	$4,919,460	100%	$0	0%	$3,578,332	73%
State Funded 11-13	$9,760,140	$5,745,746	59%	$4,014,394	41%	$392,933	7%
State Funded Total	$20,838,314	$16,823,920	81%	$4,014,394	19%	$5,203,054	31%
Federal Funded 2007	$6,635,952	$6,620,996	100%	$14,956	0.2%	$3,855,152	58%
Federal Funded 2008	$11,272,515	$11,032,957	98%	$239,558	2%	$3,851,438	35%
Federal Funded 2009	$11,189,547	$11,189,547	100%	$0	0%	$4,341,787	39%
Federal Funded 2010	$24,028,172	$24,028,173	100%	$0	0%	$5,507,377	23%
Federal Funded 2011	$24,728,261	$20,935,334	85%	$3,792,927	15%	$1,018,499	5%
Federal Funded Total	$77,854,447	$73,807,006	95%	$4,047,441	5%	$18,574,253	25%
Lead Entities	$6,170,832	$6,170,832	100%	$0	0%	$1,468,596	24%
Puget Sound Acquisition and Restoration	$37,892,542	$36,221,304	96%	$1,671,239	4%	$7,644,349	21%
Estuary and Salmon Restoration	$10,077,527	$8,989,527	89%	$1,088,000	11%	$1,224,077	14%
Family Forest Fish Passage Program	$5,168,397	$4,273,934	83%	$894,463	17%	$1,737,661	41%
Puget Sound Critical Stock	$3,916,491	$3,848,231	98%	$68,260	2%	$729,883	19%
Subtotal Grant Programs	**$161,918,550**	**$150,134,753**	**93%**	**$11,783,797**	**7%**	**$36,581,874**	**24%**
ADMINISTRATION							
SRFB Admin/Staff	$4,441,686	$4,441,686	100%	-	0%	$1,392,860	31%
Technical Panel	$598,777	$598,777	100%	-	0%	$140,468	23%
Subtotal Administration	**$5,040,463**	**$5,040,463**	**100%**	**-**	**0%**	**$1,533,328**	**30%**
GRANT AND ADMINISTRATION TOTAL	**$166,959,013**	**$155,175,216**	**93%**	**$11,783,797**	**7%**	**$38,115,202**	**25%**

Note: Activities such as Smolt Monitoring and Regional Funding are combined with projects in the state and federal funding lines above.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **1C**

Meeting Date: April 2012

Title: Management Status Report: Policy and Legislative Report

Prepared by: Steve McLellan, Policy Director

Approved by the Director: Kaleen Cottingham

Summary

The following are some policy and legislative highlights. Staff will provide an update at the meeting of the Salmon Recovery Funding Board (board).

Budget information is addressed in Item 5.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Salmon Recovery Funding Board Confirmations

The Senate confirmed the appointments of Salmon Recovery Funding Board (board) members Harry Barber, David Troutt, and Phil Rockefeller. As of this writing, the confirmations for Josh Brown and Bud Hover remained in the Senate Rules Committee.

Habitat and Recreation Lands Coordinating Group

The Habitat and Recreation Lands Coordinating Group (lands group) hosted the Fourth Annual State Land Acquisition Coordinating Forum on March 13. The annual forum is an opportunity for stakeholders, legislators, and the public to learn about state habitat and recreation land acquisition plans. At this year's forum, state agencies presented acquisition projects for which they hope to receive funding in 2013. The agencies also presented maps and other information about planned projects and explained why the projects would be important state investments.

In June, the lands group will publish the second Biennial State Land Acquisition Forecast report on its web site. The report gives information about acquisition projects the state agencies have

submitted grant requests to fund in 2013. In the past, the report has been useful to legislators and planners around the state because it shows about projects planned in their areas. As noted in the legislative report, legislation to extend the Lands Group to mid-2017 was approved by the legislature. As of this writing, it is awaiting action by the Governor.

Puget Sound Action Agenda

The Recreation and Conservation Office (RCO) submitted formal comments on the draft Puget Sound Action Agenda in February. The Action Agenda is intended to explain what makes a healthy Puget Sound, describe the current state of Puget Sound, prioritize cleanup and improvement efforts, and highlight opportunities for federal, state, local, tribal, and private resources to invest and coordinate. RCO provided the following general comments:

- The Action Agenda should be shorter and simpler to allow greater accessibility.
- The Action Agenda should defer to the National Oceanic and Atmospheric Administration (NOAA) plan for Puget Sound Chinook salmon recovery.
- Puget Sound Partnership staff should coordinate with RCO staff to set clear expectations about what data RCO will be providing to the Partnership.
- The Action Agenda should clarify the purposes of the RCO grant programs. The draft Action Agenda implies that the grant programs are designed to directly support Puget Sound recovery strategies, such as floodplain protection and restoration, when they actually have broader or different primary objectives.
- Invasive species and salmon recovery should remain top priorities for restoring the health of Puget Sound.

PSP also is prioritizing the strategies, and it is likely that the priorities will shape future funding requests for Puget Sound related projects. The Action Agenda will be reviewed by the Puget Sound Leadership Council and Governor's Office in early April. Final approval by the Leadership Council is expected at the end of April.

Allowable Uses Policy

The Recreation and Conservation Funding Board (RCFB) is currently taking public comment on a proposal to revise its policies regarding allowable uses on board-funded land and facilities. The issue stems from sponsor requests to use a project site in a way that was not approved in the original project agreement. The proposal includes "programmatic" policies for livestock grazing on projects funded with Washington Wildlife and Recreation Program critical habitat grants, communications facilities (such as cell towers) for projects funded with WWRP local parks grants, and limited tree removal for all RCO funded grants. It also would establish a framework for staff to evaluate use requests that are not clearly addressed by existing policies. The RCFB will review the public comments at its June meeting and plans to adopt policy changes in October.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **1D**

Meeting Date: April 2012

Title: Management Status Report: Performance Report

Prepared by: Rebecca Connolly, Board Liaison and Accountability Manager

Approved by the Director: Kaleen Cottingham

Summary

This memo provides highlights of agency performance related to the projects and activities funded by the Salmon Recovery Funding Board (board).

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

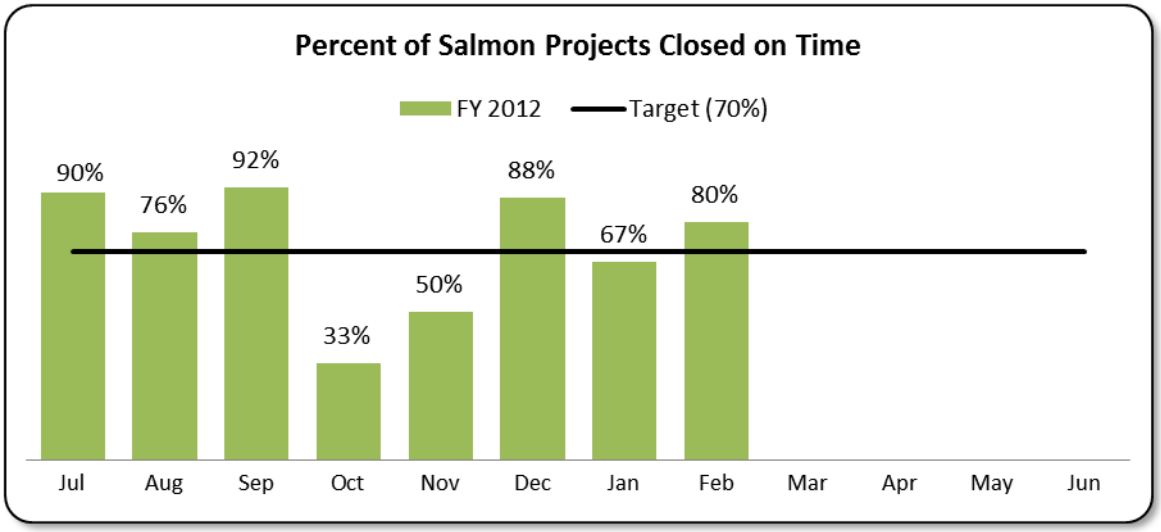
Grant Management Measures

All data are for salmon grants only, as of March 1, 2012.

Measure	FY 2012 Target	FY 2012 Performance	FY 2012 Indicator
Percent of salmon projects closed on time	70%	64%	🟡
% salmon grant projects issued a project agreement within 120 days after the board funding date	75%	71% *(in progress)*	🟢
% of salmon grant projects under agreement within 180 days after the board funding date	95%	47% *(in progress)*	🟢
Cumulative expenditures, salmon target	21.5%	12.5% *(in progress)*	🟢
Bills paid within 30 days: salmon projects and activities	100%	80%	🟡
Percent of anticipated stream miles made accessible to salmon	100%	100%	🟢

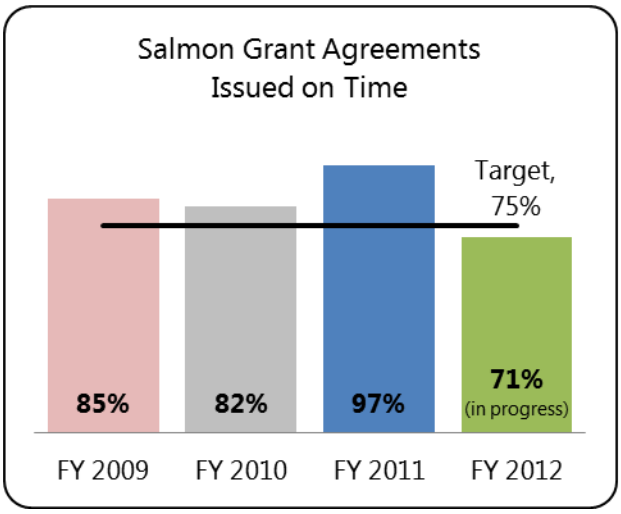
Notes and Analysis

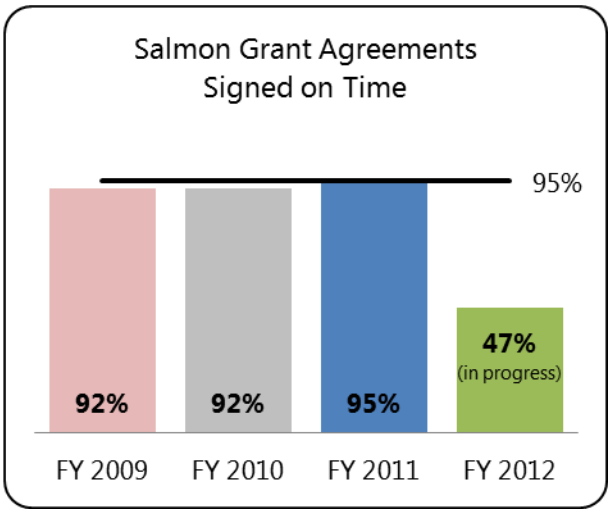
Projects Closed On Time



In this fiscal year, staff has closed 92 salmon agreements on time, while 52 have slipped into the closure backlog. Twenty of the 52 "backlog" projects had been closed as of March 1; they were in the backlog for an average of 68 days. Strong performance in most months is offset by challenges in October and November, when staff also were preparing for the December funding meeting.

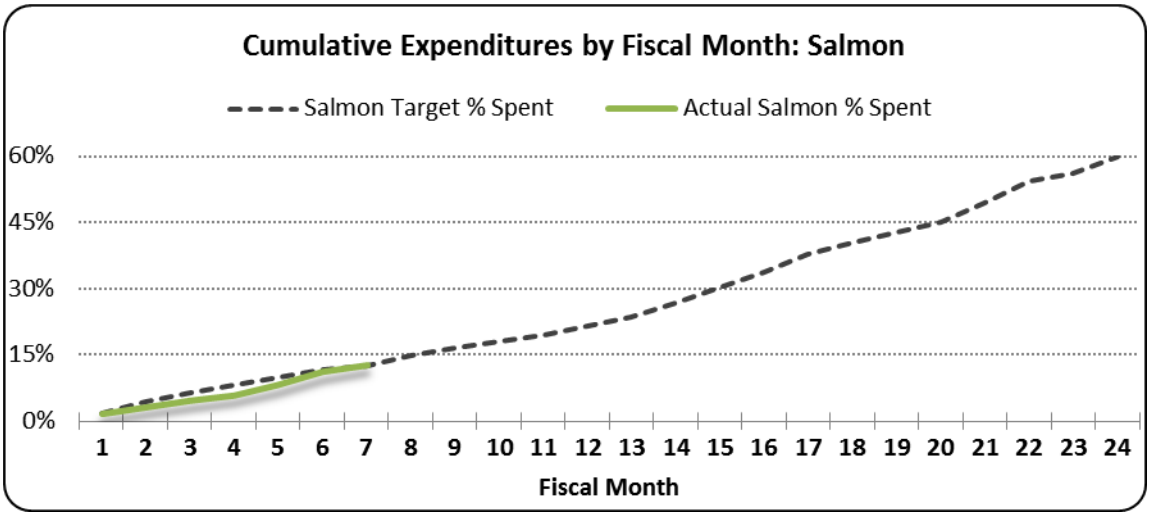
Project Agreements Issued and Signed on Time





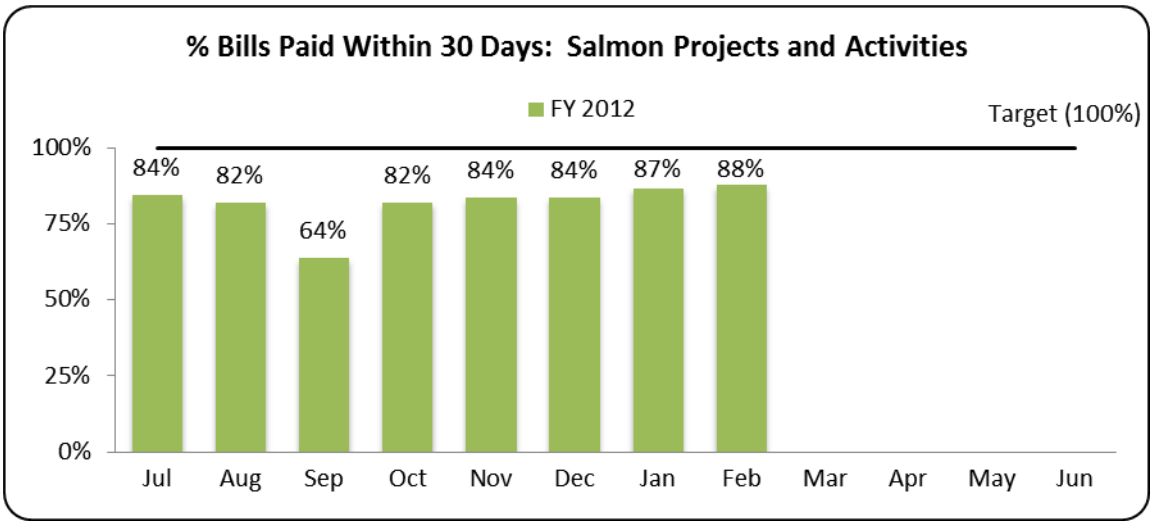
The board approved funding for about 130 projects in December 2011. Staff has made good progress in issuing the grant agreements; it is highly likely that they will achieve the 75% goal by April 6, which marks 120 days after the funding date. Likewise, sponsors are returning signed agreements in a timely manner; the 180-day mark for "on time" performance is June 5.

Fiscal Month Expenditures



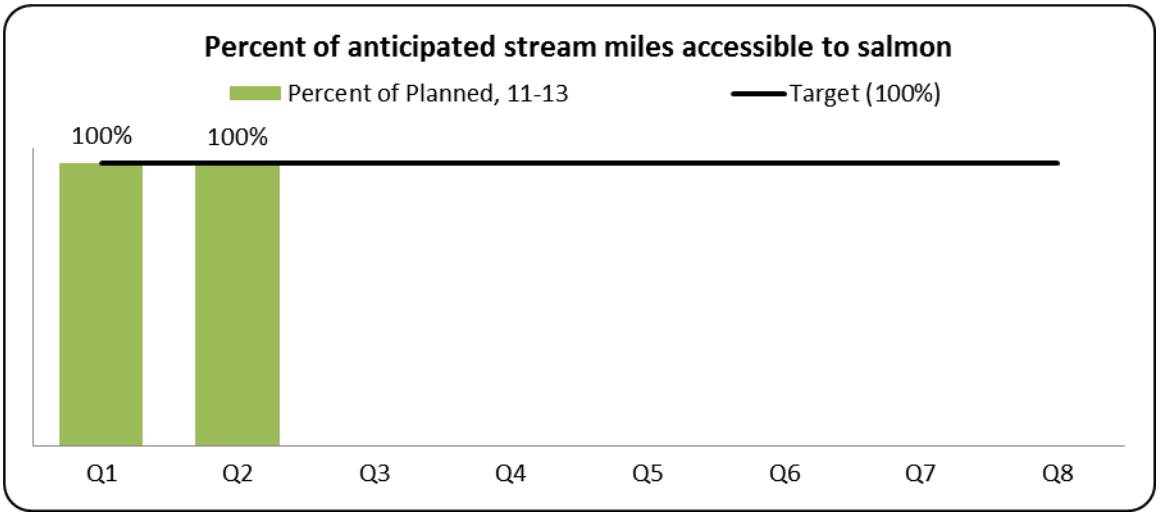
In this biennium, the RCO is aiming for a 40 percent reappropriation rate for salmon funds. To achieve this, we need to expend 60 percent, or about $120 million. As shown in the chart, expenditures are on track to meet the target.

Bills Paid within 30 days



Between July 1 and March 1, there were 1,278 invoices due for salmon recovery projects and activities (e.g., lead entities, regions, and review panel). Of those, 1,025 were paid on time and 228 were paid late. Only 25 are outstanding, generally due to problems with documentation from the sponsor. The average number of days to pay a bill is 17.

Percent of Anticipated Stream Miles made Accessible to Salmon



This is one of many measures that the RCO collects about the benefits of projects. The measure compares the number of stream miles expected to be opened (at application) to the number of miles actually made accessible at project closure. About 40 miles have been made accessible since July 1, 2012. Not all projects include this measure.

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

Salmon Recovery Funding Board Briefing Memo

Item **2A**

Meeting Date: April 2012

Title: Management Report, Governor's Salmon Recovery Office

Prepared by: Megan Duffy, Executive Coordinator

Approved by the Director: Kaleen Cottingham

Summary

This memo provides highlights of work being done by the Governor's Salmon Recovery Office.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Steelhead Recovery Plan Funding

In May 2011, the Salmon Recovery Funding Board (board) awarded $250,000 to Puget Sound lead entities to develop and review elements of a Puget Sound steelhead recovery plan. In December 2011, the Governor's Salmon Recovery Office (GSRO) reported that it was working closely with the Puget Sound Partnership (PSP) to determine how they would distribute the funds.

The Puget Sound Recovery Council created a Steelhead Steering Committee, a small group of experts who identified the most critical needs for steelhead. They considered the work of the Puget Sound Steelhead Technical Review Team, which produced a draft Population Identification document and began drafting viability criteria in 2011, as well as recent marine studies and the WDFW Steelhead Action Plan. This review informed the steering committee's proposal on the best way to invest the $250,000.

In March, the steering committee presented a proposal to the Recovery Council. This proposal differed from the board's original award to lead entities by (1) changing the scope of the work that would be done and (2) assuming that the work would not necessarily be done by lead entities. Rather, the proposal assumes that funds would be awarded to the PSP for distribution

through competitive contracting processes. The Recovery Council approved the proposal with the following three components:

1. Recommends $175,000 for developing a recovery plan or framework for up to five populations of steelhead in Puget Sound.
2. Invests $50,000 in the Marine Survival Project, which will provide information regarding why juvenile salmonids, including steelhead, are not surviving their journeys through Puget Sound.
3. Provides $25,000 for finer application of the Intrinsic Potential model, which will help identify steelhead habitat at a finer resolution than is currently possible.

The GSRO supports the Recovery Council proposal. However, because some or all of the funds may not be distributed to Puget Sound lead entities, as originally approved, GSRO is asking the board to adopt amended language for the $250,000 allocation to support the Puget Sound Recovery Council proposal.

Proposed Motion Language

Move to amend the allocation made in May 2011 so that $250,000 is awarded to the Puget Sound Partnership to implement the Puget Sound steelhead recovery planning proposal approved by the Puget Sound Recovery Council in March 2012.

COR Letter to State Agencies

Salmon recovery plans identify and prioritize actions that should be taken by state and federal agencies. In December 2008, the GSRO prepared a report on the status of the state and federal actions that are considered to be high priorities for implementation[1]. The report identified actions for seven state agencies: WDFW, DOE, RCO, DNR, DOT, Conservation Commission and Community, Trade and Economic Development (now the Department of Commerce).

The regional organizations are now implementing recovery plans, and have agreed that 2012 is an appropriate time to assess progress on priority state actions, recognize achievements, and identify key state agency priorities for the next biennium, particularly in light of state budget constraints.

To initiate this conversation with each of the seven state agencies, the Council of Regions and GSRO have prepared a letter for distribution to the state agency directors, requesting an individual discussion. These meetings will be scheduled for the late spring/early summer.

[1] (The full report can be found at http://www.rco.wa.gov/documents/gsro/2008_recov_plan_report.pdf.)

2012 State of the Salmon in Watersheds Update

The GSRO has begun a collaborative process of building a web-based 2012 State of Salmon in Watersheds (SOSiW) report. Like past reports, the 2012 report will roll-up data consistently at both regional and state scales; contain indicators of adult and juvenile fish abundance, watershed health, and implementation; and highlight key information gaps and needs. The regional chapters may supplement the common indicators with contextual narrative and additional data to address local variability.

The 2012 report will be housed on RCO's website, with links to seven salmon recovery regional organization chapters. The web version of the report will have printable summary pages, a brief, printable executive summary, and links to a broader information base that will feed, inform and be aligned with the state report. Most of this electronic report will be static data, but will include a data delivery system that allows for dynamic data when it is available in the future.

GSRO worked with various partners to refine the stream flow and fish population indicators. We will soon begin coordinating the work to refine the remaining watershed health and implementation indicators (e.g., the recovery plan progress indicator for each region). We also have begun the scoping process for the data delivery system, web design, and graphics; a web template is due to GSRO by April 15, and agency data are due May 1.

Pacific Coastal Salmon Recovery Fund (PCSRF) Application for 2012

RCO is currently preparing the federal fiscal year 2012 Pacific Coastal Salmon Recovery Fund (PCSRF) application. The 2012 PCSRF grant announcement was posted on March 9, 2012. Pre-applications are due on April 9 and the final applications are due April 23. The estimated total available will be $65 million. Washington State intends to apply for the maximum allowable award of $30 million. Additional information is in memo #4.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **2B**

Meeting Date: April 2012

Title: Management Report: Salmon Recovery Grant Management

Prepared by: Brian Abbott, Section Manager

Approved by the Director: Kaleen Cottingham

Summary

The following are some highlights of work being done by the salmon section staff in the Recreation and Conservation Office (RCO).

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Grant Management

Salmon Section staff has been working with project sponsors to enter into contracts for the grants awarded in December 2011. As of late March, 60 percent of the projects were under contract; another 17 percent were in the contract process. Staff has scheduled a Successful Applicant Workshop (Webinar) for April 20.

On March 16, staff conducted an Application Webinar. With time, travel, and funding limitations for the agency and sponsors, Recreation and Conservation Office (RCO) staff is experimenting with ways to share information. Seventy-nine people participated, and their initial feedback has been positive. Sponsors appreciate to opportunity to receive information in this format because it saves them time, travel, and money. The Webinar was recorded and is available on the RCO website at www.rco.wa.gov/doc_pages/app_materials.shtml#app_wkshp.

Manual 18

Manual 18 was finalized and made available February 13. The manual is available online at: www.rco.wa.gov/documents/manuals&forms/Manual_18.pdf. A limited number of copies were printed; printed copies will be made available to board members at the meeting.

Stream Habitat Restoration Guidelines Training

The RCO and Washington Department of Fish and Wildlife (WDFW) have partnered with the Department of Ecology's Coastal Training Program to offer a special class to RCO grant recipients and restoration technicians about "Understanding Washington State's Stream Habitat Restoration Guidelines." This class will be held in Lacey on April 12-13, and in Wenatchee on April 24-25. The update to Manual 18 Appendix D (Design and Restoration Deliverables) is based on the principles outlined in Stream Habitat Restoration Guidelines. This training will help attendees have a better understanding of the design process and restoration techniques. The classes have filled quickly; over 130 people are registered.

Pacific Coastal Salmon Recovery Fund Metrics Project

After the PCSRF metrics were updated in 2009, the National Oceanic and Atmospheric Administration (NOAA) required all PCSRF recipients to update closed projects with the new Phase Two PCSRF metrics. The update is due by October 2012. NOAA provided RCO with funds to make the changes, and we are on track to finish by June 30.

The project was delayed significantly when staff realized that many of the projects had incorrect work types. Work types are part of the application, and describe the work that will be done with the grant (e.g., "channel modification" or "plant removal"). Nearly 70 percent of the projects had extra work types that did not match the project. The problem was traced to the 2009 migration of PRISM data to the new Phase 2 metric update. It was a big surprise, and correcting it was not part of the original project scope.

Sarah Gage, who is leading the project, reviewed each closed project in PRISM to check how well the work types corresponded with work actually performed by consulting PRISM contents such as the project description, narrative, inspections, attachments (final report if available), and archives. She then confirmed the correct work types with the grant manager and amended PRISM to include the correct work types. This clean-up work is now finished.

The next step will be to engage sponsors and ask them to complete the final report in PRISM. Sarah will be drafting a tailored email to each sponsor with a list of all of their projects that need updated metrics. There are about 1,200 projects and 200 sponsors. Each email will include a worksheet for each project, with instructions telling the sponsor how to fill out the final report and ways to get help. Sarah will be responding to questions and will follow-up by phone to offer additional assistance and encouragement.

Project Conference April 2013

Staff is planning the 2013 project conference, and is in the process of putting together a planning group and will brief the RCO director in the coming weeks. In an effort to move the project conference location around the state, staff is considering a conference facility in Vancouver, Washington. Staff will discuss location preference with the board at the April meeting.

Fish Passage Workgroup

RCO and WDFW staff met with board member Mike Barber, Washington Department of Transportation, to brainstorm ideas to coordinate fish passage programs and align priorities to achieve the greatest benefit to the resource. One result was agreement to restart the Fish Passage Workgroup and reach out to regional organizations and lead entities. The goal is to coordinate efforts and share information on barrier correction projects and align priorities. The first meeting was scheduled for March 27. Representatives from Washington Department of Transportation, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, and Recreation and Conservation Office planned to attend the meeting.

Amendments Approved by the Director

In December, the board approved a revision to *Manual 18, Appendix B, SRFB Authority Matrix*. As part of the revision, the board asked that staff begin including a list of major amendments (scope and cost increases) approved by the director. Below is a brief summary of major amendments approved between December 8, 2011 and March 20, 2012.

Number	Name	Sponsor	Program	Amendment Type	Amount
07-1646	Snoqualmie Riparian Restoration-Salmon Safe Farms	Stewardship Partners	Salmon Federal Projects	Cost Change Cultural Resources	$3,446
08-1952	Manastash Creek Diversion Consolidation	Kittitas Co Conservation Dist	Salmon Federal Projects	Cost Change Match Reduction *(Work will be completed outside current contract timeline)*	$692,392
09-1277	Qwuloolt Estuary Restoration - Construction	Tulalip Tribe	PSAR	Scope Change *Combining project agreements**	
09-1279	Smith Island Estuarine Restoration - Construction	Snohomish County of	PSAR	Scope Change *Combining project agreements**	
09-1456	White River Nason View Acquisition	Chelan-Douglas Land Trust	Salmon Federal Projects	Cost Change *(Land costs)*	$75,000

Number	Name	Sponsor	Program	Amendment Type	Amount
09-1610	Donovan Creek Acquisition and Restoration - 135	Hood Canal SEG	PSAR	Cost Change *(Combo project split acquisition out)*	
10-1521	Elwha River ELJ Phase 1	Lower Elwha Klallam Tribe	Salmon State Projects	Cost Change *Combining project agreements**	
10-1671	Upper Elochoman River Salmon Conservation Project	Columbia Land Trust	Salmon Federal Projects	Cost Change *(Land Costs)*	$95,000
10-1777	Maple Creek Reach Acquisition and Restoration	Whatcom Land Trust	PSAR	Scope Change *(Added Property)*	
10-1813	Upper Methow Riparian Protection IV	Methow Conservancy	Salmon State Projects	Cost Change *Combining project agreements**	
10-1824	Fritze/Tracy Conservation Easement Acqusition	Blue Mountain Land Trust	Salmon Federal Projects	Scope Change *(Added building envelope)*	

*Note: "Combining project agreements" refers to a 2011 project that was approved in December and is amended into an existing agreement for efficiency purposes.

Closed Projects

The move to provide board meeting materials electronically and the new SnapShot feature in PRISM have presented a great opportunity to share recently closed projects. A closed project means all expenditures have been billed and those eligible expenses have been reimbursed, a final report has been received and accepted, and all required documents have been submitted.

Attachment A lists projects that have closed since December 8, 2011. To view information about a project, click on the blue project number[1]. You can open and view the project attachments (e.g., design, photo, map, and final report). You also will find a project search feature on the RCO website at Project Search to query additional projects

Grant Administration

The following table shows the progress of the Salmon Recovery Funding Board in funding and completing salmon recovery projects since 1999. Information is current as of March 19, 2012.

[1] Must be connected to the internet; Depending on the computer, you may have to right click and select "open hyperlink".

Funding Cycle	Fiscal Year	Active Projects	Pending Projects (approved but not yet active)	Completed Projects	Total Funded Projects
Governor's Salmon Recovery Office Federal 1999	1999	0	0	94	94
Interagency Review Team (Early Action grant cycle) State 1999	1999	0	0	163	163
SRFB - Early (State) 2000	2000	0	0	90	90
SRFB - Second Round 2000	2001	0	0	147	147
SRFB - Third Round 2001	2002	0	0	132	132
SRFB - Fourth Round 2002	2003	1	0	88	89
SRFB – Fifth Round 2004	2004	2	0	106	108
SRFB – Sixth Round 2005	2006	2	0	106	108
SRFB – Seventh Round 2006	2007	6	0	87	93
SRFB – 2007 Grant Round *(includes PSAR)*	2008	57	0	163	220
SRFB – 2008 Grant Round	2009	39	0	66	105
SRFB – 2009 Grant Round *(includes PSAR)*	2010	186	0	63	249
SRFB – 2010 Grant Round *(Oct and Dec)*	2011	105	0	9	114
SRFB – 2011 Grant Round	2012	97	35	0	132
*Family Forest Fish Passage Program	To Date	17	4	169	190
** Estuary Salmon Restoration Program	To Date	9	0	0	9
Totals		**521**	**39**	**1483**	**2043**
	Percent	*25.5%*	*1.9%*	*72.5%*	

Table Notes:

* FFFPP projects landowners that have applied to the program and are waiting to become a high priority for funding. These projects are not included in totals.

** Shows ESRP projects either under contract with the RCO or approved for RCO contracts. Older projects are under contract with the Department of Fish and Wildlife.

Attachments

A. Salmon Projects Closed Between December 8, 2011 and March 10, 2012

Salmon Projects Closed Between December 8, 2011 and March 10, 2012

Number	Name	Sponsor	Program	Closed On
09-1606	South Lake Washington Habitat Design	Renton City of	PSAR	12/8
07-1767	SF Stillaguamish Woody Debris Placement	Snohomish County of	PSAR	12/14
09-1639	Union Estuary Johnson Farm Dike Design	Hood Canal SEG	PSAR	12/16
05-1466	Lower Boise Creek Construction	King County DNR & Parks	Salmon Federal Projects	12/19
07-1714	Pilchuck River Riparian/Fish Habitat Restoration	Sound Salmon Solutions	PSAR	12/19
07-1804	MF Nooksack Habitat Assessment	Lummi Nation	PSAR	12/19
07-1831	Skagit Floodplain Riparian	Skagit Fish Enhancement Group	PSAR	12/19
08-2088	WRIA 14 Watertype Assessment - Phase II	Wild Fish Conservancy	Salmon Federal Projects	12/19
07-1631	Skokomish Estuary Island Restoration	Skokomish Tribe	PSAR	12/20
07-1641	Five Mile Creek LWD	Mason Conservation Dist	PSAR	12/20
07-1657	SF Skokomish River LWD Enhancement Project Phase 2	Skokomish Tribe	PSAR	12/20
07-1916	Lower Dosewallips Floodplain & Estuary Restoration	Wild Fish Conservancy	PSAR	12/20
07-1801	Neck Point Coastal Marsh Restoration	Friends of the San Juans	Salmon Federal Projects	12/21
07-1899	Lower Yakima River Restoration	Benton Co Conservation Dist	Salmon Federal Projects	12/21
08-2157	Phase 2 Tarboo Bay Land Acquisition	Northwest Watershed Institute	ESRP	12/21
09-1642	Lower Big Beef Creek Design	Hood Canal SEG	Salmon Federal Projects	12/21
08-1990	Big Quilcene River ELJ Restoration Phase 2	Hood Canal SEG	Salmon Federal Projects	12/22
09-1045	Ebey Island Feasibility Study	Fish & Wildlife Dept of	PSAR	12/28
07-1640	Quilcene Bay Conservation - Ward	Hood Canal SEG	PSAR	12/29
09-1670	Nooksack Middle Fork LWD Placement 2009	Nooksack Salmon Enhance Assn	PSAR	12/30
10-1008	WDFW Remote Sensing Study	Fish & Wildlife Dept of	Salmon Federal Activities	12/30
07-1539	Point Lawrence Road/Cascade Ck Culvert Replacement	San Juan County Public Works	Salmon Federal Projects	1/3
09-1587	Mill Creek Flume Transitions	Tri-State Steelheaders Inc	Salmon Federal Projects	1/3
09-1594	San Juan County Feeder Bluff Project	Friends of the San Juans	PSAR	1/6
10-1752	WRIA2 Derelict Fishing Net Removal	NW Straits Marine Cons Found	Salmon State Projects	1/9
08-1782	Below the Keystone Bridge - In-stream	Cascadia Conservation District	Salmon Federal Projects	1/10
08-2185	Below the Keystone Bridge - Div. Screen/Bypass	Cascadia Conservation District	Salmon Federal Projects	1/10
07-1800	SF Nooksack Instream Restoration - Van Zandt	Nooksack Indian Tribe	Salmon State Projects	1/12
08-2027	Tucannon River Instream Habitat Enhancement	Columbia Conservation Dist	Salmon Federal Projects	1/18
09-1518	Western Strait Habitat Conservation Planning	North Olympic Land Trust	PSAR	1/24

Number	Name	Sponsor	Program	Closed On
09-1589	Fish Passage Improvement on the North Fork Touchet	Fish & Wildlife Dept of	Salmon Federal Projects	1/25
05-1621	Quinault Indian Nation Comprehensive Cul	Quinault Indian Nation	Salmon State Projects	1/27
07-1887	Salt Creek Watershed Barrier Correction Project	Lower Elwha Klallam Tribe	PSAR	2/1
07-1685	SFK Toutle Side Channel / Filla L Cowlitz	Lower Columbia River FEG	Salmon Federal Projects	2/7
08-1437	Hoquiam Surge Plain Habitat Acqusition	Chehalis R Basin Land Trust	Salmon State Projects	2/8
07-1786	Illabot Creek Design Study	Skagit River Sys Cooperative	PSAR	2/9
08-1724	Columbia Estuary - Elochoman Riv Hab Conservation	Columbia Land Trust	Salmon State Projects	2/10
10-1234	Mill Creek Fish Passage Project	Lewis County Conservation Dist	Salmon State Projects	2/10
07-1551	Taneum Creek Fish Passage	Kittitas Conservation Trust	Salmon Federal Projects	2/13
08-2024	Couse Creek Riparian	Asotin Co Conservation Dist	Salmon State Projects	2/14
08-2186	Below the Keystone Bridge - Riparian Planting	Cascadia Conservation District	Salmon Federal Projects	2/14
08-1943	NF Nooksack - Lone Tree Phase II	Nooksack Indian Tribe	Salmon Federal Projects	2/17
10-1412	Grays Harbor Juvenile Fish Use Assessment	Wild Fish Conservancy	Salmon Federal Projects	2/17
06-2254	Prairie Creek Knotweed Control	Quinault Indian Nation	Salmon Federal Projects	2/21
09-1424	Hatchery and Harvest Work Schedule Phase 2	Fish & Wildlife Dept of	Salmon Federal Activities	2/21
07-1735	Blue Slough Side Channel Reconnection	Stillaguamish Tribe of Indians	PSAR	2/23
09-1595	Tucannon Ranch River Reach Design/Feasibility	Columbia Conservation Dist	Salmon State Projects	2/24
08-2093	Pautzke Restoration - Construction	King County DNR & Parks	Salmon Federal Projects	2/28
09-1476	Entiat Tyee Ranch Conservation Easement	Chelan-Douglas Land Trust	Salmon Federal Projects	3/2
10-1345	Davis Creek Fish Barrier Correction	Chehalis Basin FTF	Salmon State Projects	3/2
04-1568	Garfield County Irrigation Screening Pro	Pomeroy Conservation Dist	Salmon Federal Projects	3/3
09-1778	Washougal River Weir	Fish & Wildlife Dept of	Salmon Federal Activities	3/5
05-1602	Klingel Estuary Restoration	Hood Canal SEG	Salmon Federal Projects	3/6
09-1532	Ozette Sockeye Recovery - Big River Acquisition	North Olympic Land Trust	Salmon Federal Projects	3/7
09-1682	NF Nooksack Wildcat Reach Feasibility and Design	Nooksack Indian Tribe	PSAR	3/8
09-1617	Upper Pole Creek Road Decommissioning	Hoh River Trust	Salmon Federal Projects	3/9
10-1657	Dally Wilson - White River Conservation	Chelan-Douglas Land Trust	Salmon Federal Projects	3/9

Washington Council of Salmon Recovery Regions
Report to the Salmon Recovery Funding Board
April 2012

The regional directors have focused their attention on how to advance salmon recovery efforts over the next several years given anticipated fiscal constraints. In particular, the regions are seeking to strengthen their working relationships with federal and state agencies to identify critical actions, set priorities, better coordinate efforts, and leverage resources. Primary topics of discussion include:

Advancing coordination with NMFS on implementing the salmon recovery plans, 5 year status reviews and monitoring efforts

The Directors met with Scott Rumsey, NMFS NW Salmon Recovery Branch Chief and Elizabeth Gaar, NMFS Protected Resources Division to explore how to work together more effectively on implementation and monitoring opportunities.

The regional directors cited the recently completed ESU 5-year status reviews as an effort that could have benefitted from closer cooperation between NMFS and the regions. The next 5-year status review will be completed in 2015. The regional organizations expressed an interest in reviewing and commenting on the salmon VSP data developed by NOAA's NW Fisheries Science Center. They also hope to coordinate with NMFS in collecting regional data, metrics and indicators that could be used to evaluate the listing factors. While explaining that it was NMFS responsibility to determine the status of ESUs, Mr. Rumsey agreed that it would be desirable to work with the regions to ensure that best available information was being used. NMFS hopes to publish the review schedule early so that the regional organizations will be able to review the pre-decisional draft prior to the listing conclusions.

The group also discussed other potential opportunities for collaboration including:

- Using the Mid-Columbia Forum as a model for implementation collaboration in other regions.
- Defining the nature and scope of the "adequacy of regulatory mechanisms" listing factor and standards and methods of evaluation.
- Ensuring consistency of BiOp actions and recovery plans.
- Ensuring two-way communications between NMFS and the regional organizations to better coordinate work and avoid surprises.
- Considering hatchery reforms and operations.
- Developing an annual check-in process.

Working with state agencies to coordinate key salmon recovery and watershed health priorities during the next biennium

GSRO and COR are working together to arrange meetings with state agencies to review common action themes, and key needs and priorities for future salmon recovery work. Given the fiscal issues facing the state, the regional organization would like to explore ways to gain efficiencies in working together to advance salmon recovery and watershed health efforts in the next biennium. A letter to the natural resource agencies will be sent this month and individual meetings with the agencies will be scheduled this spring.

Participating in the development of the State of the Salmon in Watersheds 2012 report to the Legislature

The regional organizations are actively working with GSRO to develop the report. The goal is to tell the salmon recovery story in a clear, accurate and meaningful manner on both the state and regional levels. Decisions on style, content and metrics will be completed next month. A number of discussions have taken place to review common metrics and themes that can be woven together. WDFW has shared their SCoRE test website to receive comments on the structure and content.

Pursing collaborative monitoring projects

At the August SRFB meeting, the board directed GSRO to convene a workgroup to discuss how to allocate any unobligated monitoring funds from the federal fiscal year 2011 PCSRF award. In doing so the group has reviewed GSRO's proposed criteria for project funding, submitted proposals for consideration, and evaluated and ranked them for final SRFB consideration in April. The regional directors also expressed a desire to have a continuing discussion on monitoring needs, priorities, coordination and cooperation.

Exploring opportunities to collaborate on salmon recovery and habitat restoration work with the NW Power and Planning Council

NPPC Council members Phil Rockefeller and Tom Karier met with the Columbia Basin regional directors to consider new ways to work together. Council member Rockefeller gave an overview of the recent decision of Judge Redden and the probable response of NOAA and federal action agencies. He emphasized the need to: 1) do more with less; 2) fill necessary data gaps; and 3) gain efficiencies everywhere possible. Council member Tom Karier presented an overview of the challenges in collecting and reporting monitoring results. The group explored a number of ways to enhance and expedite recovery projects and document results in the Columbia Basin. The Columbia Basin regions have continued to work with Tom Karier to explore opportunities to improve federal/state coordination on monitoring. Discussions to date have focused on identifying key management questions shared by the regions and the federal agencies involved in the implementation of the FCRPS BiOp.

Lead Entity Advisory Group Report to the Salmon Recovery Funding Board
April 2012

The Lead Entity Advisory Group (LEAG) is currently working on several fronts. We have been monitoring the legislative session and proposed budgets to see how funding will shake out for lead entities and our partners.

The LEAG Executive Board approved a letter educating about the important salmon restoration work accomplished by Conservation Districts and Regional Fisheries Enhancement Groups across the state and how integral that is to our efforts.

LEAG has also organized a subcommittee exploring the issue of monitoring as possible match for SRFB projects or the possibility monitoring as an allowable stand alone project. This issue came before the SRFB previously. We are developing answers for the questions raised then. Our committee is a diverse group, with members from LEAG, SRFB staff & review panel members, GSRO and others.

The committee held a conference call last month with project sponsors to gain insights. The issue was also discussed at the March LEAG retreat. The committee continues meeting on this issue, with the hopes of being back before the SRFB later this year.

LEAG members were extremely busy the past few months with organizing and then attending the LEAG Training Retreat held the third week of March in Hood Canal. One change from previous retreats was the inclusion of many of our partners and other professionals to advise and share their expertise.

We received a lot of positive comments from participants about the work accomplished there which we will be following up on. Further information will be provided at the SRFB Meeting.

LEAG Members are also providing feedback on Conflict of Interest Policies proposed by GSRO, which is something we have been working on since the fall.

Most Lead Entities also either have their 2012 grant round under way with pre-applications due and project site visits pending. Others are engaged in the preparation work (updating grant RFPs, grant schedules, organizing citizen and technical committees, updating capital work plans, etc) needed to launch their round.

This quarter, Lead Entities were also required to complete updates of their proposed, pending and restoration projects which are underway in the Habitat Work Schedule (HWS). They also participated in training and made adjustments to their grant rounds in order to begin projects in HWS, then transfer the applications to PRISM in order to facilitate the new interface between those two data systems.

WASHINGTON STATE
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Item 3C: Regional Fisheries Enhancement Groups Report will be presented at the meeting.

There are no advance materials.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **4**

Meeting Date: April 2012

Title: Implications of State and Federal Budgets on Funding Allocation

Prepared by: Steve McLellan, Policy Director
Megan Duffy, GSRO Executive Coordinator

Approved by the Director: Kaleen Cottingham

Summary

This memo provides an update about state and federal budgets for salmon recovery efforts.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

State Budget Effects for Salmon Recovery

The 2012 regular legislative session ended on March 9 without a final budget. As of this writing, the legislature is in special session. Staff will provide an update at the Salmon Recovery Funding Board (board) meeting on April 18.

Supplemental Operating and Capital Budgets

As of this writing, the final status of the supplemental operating and capital budgets remains in flux.

Operating Budget: General Fund

The latest House and Senate operating budget proposals for the Recreation and Conservation Office (RCO) are almost identical with regard to general fund cuts.

- Both versions cut $107 thousand from salmon administration with the notation that these cuts may not be taken from lead entities unless backfilled with other funds. The Board previously approved backfilling cuts up to $50 thousand so this leaves $57 thousand in cuts yet to be addressed.

- Additional cuts and funds shifts are adopted as proposed last year by RCO and adopted in the Governor's budget proposal. The total general fund cut equals $202 thousand (including some technical adjustments). This equals 10 percent of the agency's remaining general fund budget.

The most likely and least disruptive option for addressing remaining cuts is to move some costs for the State of the Salmon report to other fund sources for this production cycle.

Operating Budget: Proposal to Move Funds from the Recreation Resources Account

The Senate budget moves $4.6 million from the Recreation Resources Account (boating funds) to the Department of Fish and Wildlife to replace general funds for marine law enforcement. The House budget shifts $2.3 million from the Recreation Resources Account to marine law enforcement. If the fund shift remains in the final version, the most likely effect is a reduction in new boating facilities grants available in the 2013-15 biennium. The Office of Financial Management has included this on their "concerns" list for the budget, but at this point it seems likely that some level of fund shift will remain in the final agreement.

Other Budget Action

Both House and Senate budget proposals tap the Aquatic Lands Enhancement Account (ALEA) to offset a number of different general fund appropriations. The latest Senate version uses ALEA to backfill funding cuts to the Regional Fish Enhancement Groups. Previous versions cut the RFEG's by $1.3 million dollars and the last House-passed version includes a $750 thousand cut. ALEA funding is also used to provide some short term relief to State Parks as they transition to a fully revenue-supported agency. Overall there are concerns that the ALEA balance is being taken so low that if revenue from geoduck sales falls it could affect future funding for the ALEA grants awarded by the Recreation and Conservation Funding Board. .

In the capital budget, the Family Forest Fish Passage Program (administered by RCO) is included in both the House and Senate proposals for $10 million of increased funding. The funding mechanisms in both plans (informally known as the "jobs packages") are different, but both rely on bonds, which require a 60 percent vote to pass. As of this writing, there is no agreement about whether a jobs package will proceed.

Federal Funding for Salmon

NOAA's New Funding Priorities for 2012 PCSRF

The National Oceanic and Atmospheric Administration (NOAA) has established four priorities for salmon recovery funding. We receive the majority of our funding for our salmon recovery projects from NOAA through a federal Pacific Coastal Salmon Recovery Fund grant. The new priorities will change the way we write our application for the grant, which is due April 23.

The four priorities are a result of a recent NOAA review of how Washington and five other states, as well as several tribes, managed their grants. The review was conducted to evaluate how projects are selected, prioritized, and implemented and whether the approach was tied

appropriately to federally-approved salmon recovery plans. The review also discussed funding priorities for the federal grant program.

The new grant application will be structured around the following four federal priorities, summarized below:

1. Projects that address factors limiting the productivity of Endangered Species Act-listed Pacific salmon as detailed in recovery plans.
2. Projects that restore or protect habitat of salmonids that are at-risk of being ESA-listed or are necessary for exercise of tribal treaty fishing rights
3. Effectiveness monitoring of habitat restoration projects at the watershed or larger scales for listed salmon, or status monitoring projects that directly contribute to population viability assessments for listed salmon.
4. Other projects consistent with the Congressional authorization with demonstrated need for funding. This would include habitat restoration and planning projects not included in the above priorities, as well as outreach, coordination, research, monitoring, and assessment projects.

Washington State's 2012 Grant Application

The 2012 Pacific Coastal Salmon Recovery Fund (PCSRF) grant announcement was posted on March 9, 2012. Pre-applications are due on April 9; the final applications are due April 23. The estimated total available will be $65 million. Washington State intends to apply for the maximum allowable award of $30 million.

Like previous applications, the 2012 proposal will be a multi-partner effort between the Salmon Recovery Funding Board, the Recreation and Conservation Office, the Department of Fish and Wildlife, and the tribes of the Northwest Indian Fisheries Commission. The application will request funds for habitat projects, hatchery reform projects, monitoring, administration, and database upgrades. The request will be aligned with the new federal priorities established by NOAA.

Based on past awards, we hope to receive a minimum of $22.75 million in Washington State. After allocations for hatchery reform and administration, this amount would be sufficient for the board to meet its target allocations for capacity and monitoring, and provide an $18 million grant round in 2012.

President's 2013 Budget

PCSRF funding is proposed at $50 million in the president's budget for federal fiscal year 2013. By contrast, Congress approved $65 million for 2012.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

February 9, 2012

Washington State Recreation & Conservation Office
Kaleen Cottingham, Director
The Recreation and Conservation Office
P.O. Box 40917
Olympia, Washington 98504-0917

RECEIVED
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RECREATION AND CONSERVATION OFFICE

Salmon Recovery Funding Board
Donald "Bud" Hover, Chair
P.O. Box 40917
Olympia, Washington 8504-0917

Dear Director Cottingham and Chair Hover,

I would like to inform you about changes that NOAA Fisheries is making to the process for applying for Pacific Coastal Salmon Recovery Fund (PCSRF) grants. In response to the reduced PCSRF funding for FY2012 and tightening federal budgets, NOAA Fisheries has identified the need to more strategically deploy limited grant funds. This includes focusing PCSRF grant funds on projects that address identified factors limiting the recovery of Endangered Species Act (ESA) listed salmonids, as well as an increased focus on habitat conservation. This increased emphasis for PCSRF funds on ESA recovery and habitat conservation is reflected in more specific priorities that will guide the allocation of FY2012 PCSRF grants, and an increased level of specificity and detail being requested in the FY2012 PCSRF grant applications. Program reviews are also being conducted to review past PCSRF performance and how the program may more effectively support recovery implementation for ESA-listed salmonids.

PCSRF Program Priorities

The PCSRF is designed to supplement State and tribal programs for salmon restoration by allocating federal funding to projects and activities that provide demonstrable and measurable benefits to Pacific anadromous salmonids (Chinook, coho, sockeye, pink and chum salmon and steelhead) and their habitat. In accordance with the Congressional authorization for PCSRF in FY2012 (Public Law 112-55), these projects and activities are those "necessary for conservation of salmon and steelhead populations that are listed as threatened or endangered, or identified by a State as at-risk to be so-listed, for maintaining populations necessary for exercise of tribal treaty fishing rights or native subsistence fishing, or for conservation of Pacific coastal salmon and steelhead habitat." Within that authorization, NOAA Fisheries has established the following priorities, in ranked order, for FY 2012 PCSRF grant proposals.

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(1) Projects that address factors limiting the productivity of ESA-listed Pacific salmonids as specified in approved, interim or proposed Recovery Plans. This includes projects that are a necessary precursor to implementing priority habitat actions for ESA-listed salmonids (e.g., project planning/design).

(2) Projects that restore and protect the habitat of anadromous salmonids that are at-risk of being ESA listed or are necessary for exercise of tribal treaty fishing rights or native subsistence fishing. This includes projects that are a necessary precursor to implementing tribal habitat actions (e.g. project planning/design).

(3) Effectiveness monitoring of habitat restoration actions at the watershed or larger scales for ESA-listed anadromous salmonids, status monitoring projects that directly contribute to population viability assessments for ESA-listed anadromous salmonids, or monitoring necessary for the exercise of tribal treaty fish rights or native subsistence fishing on anadromous salmonids.

(4) Other projects consistent with the Congressional authorization with demonstrated need for PCSRF funding. This would include habitat restoration and planning projects not included in the above priorities, as well as outreach, coordination, research, monitoring, and assessment projects that can be justified as directly supporting one of the priorities.

For FY2012, NOAA Fisheries will consider only those PCSRF grant applications that are responsive to the above priorities. Grant applications may include proposals for more than one priority; however, a separate proposal narrative and budget will need to be included in the application for each priority. Grant applications will be evaluated as a whole, as well as separately for each priority. NOAA anticipates a greater proportion of the available FY 2012 PCSRF funding will be distributed to the higher priorities, but all priorities are anticipated to receive some amount of funds. It is NOAA's expectation that applications from States and Tribal Commissions will have at least 10% of their application apply to monitoring, with a preference for monitoring described in priority 3, above.

FY2012 PCSRF Grant Applications

A Federal Funding Opportunity (FFO) for the FY2012 PCSRF funds will be announced soon that provides the details of the timelines, application procedures and the competitive selection process that will be used to determine successful applicants. In contrast with past years, the FFO will specify additional details that will need to be included in grant applications specifically addressing the above four FY2012 priorities. States and Tribal Commissions will need to provide additional program details in their PCSRF application describing their competitive project selection methods and non-competitive processes, including technical reviews, and how their project selection methods will ensure that funded projects are designed to achieve a given PCSRF priority.

I want to take this opportunity to thank all of you for your support of the PCSRF program and your efforts to restore Pacific salmonids. I firmly believe the program changes being

implemented for FY2012 will strengthen the accountability of the PCSRF program, better position the program to sustain funding and support into the future, and increase the program's effectiveness in conserving Pacific salmon and steelhead.

Sincerely,

William W. Stelle, Jr.
Regional Administrator

cc: Phil Anderson, Director - Washington Department of Fish and Wildlife
Sara LaBorde, Special Assistant to the Director - Washington Department of Fish and Wildlife
Megan Duffy, Executive Director - Washington Governor's Salmon Recovery Office

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **5**

Meeting Date: April 2012

Title: Options for Addressing Budget Shortfalls

Prepared by: Megan Duffy, GSRO Executive Coordinator

Approved by the Director: Kaleen Cottingham

Summary

State and federal budget trends indicate that the Salmon Recovery Funding Board (board) likely will receive less funding for projects, capacity, and monitoring in the future. The board will need to make funding decisions for the 2013-15 state biennium in May 2013. Staff will present options for addressing the potential shortfall, and ask the board to choose two or three options for further investigation over the next year in preparation for the May 2013 funding decisions.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☒ Request for Direction
- ☒ Briefing

Background

Funds for Puget Sound

The state capital budget includes Puget Sound Restoration (PSR) funds[1]. Although these funds are awarded by the Salmon Recovery Funding Board (board), they are dedicated for use in Puget Sound. This analysis is focused on the board's statewide allocation, so it excludes the PSR funds. Although not included in the overall analysis, it is important for the board to know that a portion of these funds support the RCO administration and the regional organization and lead entities in the Puget Sound region. This funding has been diminishing over the past several biennia and its future is uncertain.

[1] Puget Sound Acquisition and Restoration (PSAR) in previous biennia.

Board Budget and Funding Approach

The Salmon Recovery Funding Board (board) receives funds for statewide allocation from the state capital budget (including both state general obligation bonds and the federal Pacific Coastal Salmon Recovery Fund (PCSRF) grants) and from the state operating budget (state general funds).

- The state bond funds can be used for projects and Recreation and Conservation Office (RCO) administration[2].
- The state general fund dollars are dedicated to lead entities[3].
- The PCSRF grant can be used for lead entities, regions, monitoring, RCO administration, and projects. Ten percent of the total award must be used for monitoring.

Of the amount allocated by the board, it has traditionally been allocated into three general categories: Projects, Monitoring, and Human Capital/Capacity. This approach is documented in the board's funding allocation strategy and key actions, which are part of its strategic plan.

Funding Allocation Strategy: Key Actions

Within the limits of the board's budget and priorities, fund projects, monitoring, and human capital in a way that best advances the salmon recovery effort.

- Provide funding for the following:
  - Projects that produce measureable and sustainable benefits for salmon
  - Monitoring to measure project implementation, effectiveness, and the long-term results of all recovery efforts
  - Human Capital that identifies, supports, and implements recovery actions
- Ensure funding practices reflect that a critical part of the board's mission is to fund the habitat restoration and protection projects that constitute the foundation of salmon recovery.
- Support projects that meet regional salmon recovery goals and the goals of other related planning efforts.
- Inform budget decisions by establishing the minimum and maximum funding needed for each focus area (projects, monitoring and human capacity) necessary to support salmon recovery.
- Encourage projects and activities that find innovative ways to achieve goals and realize efficiencies.

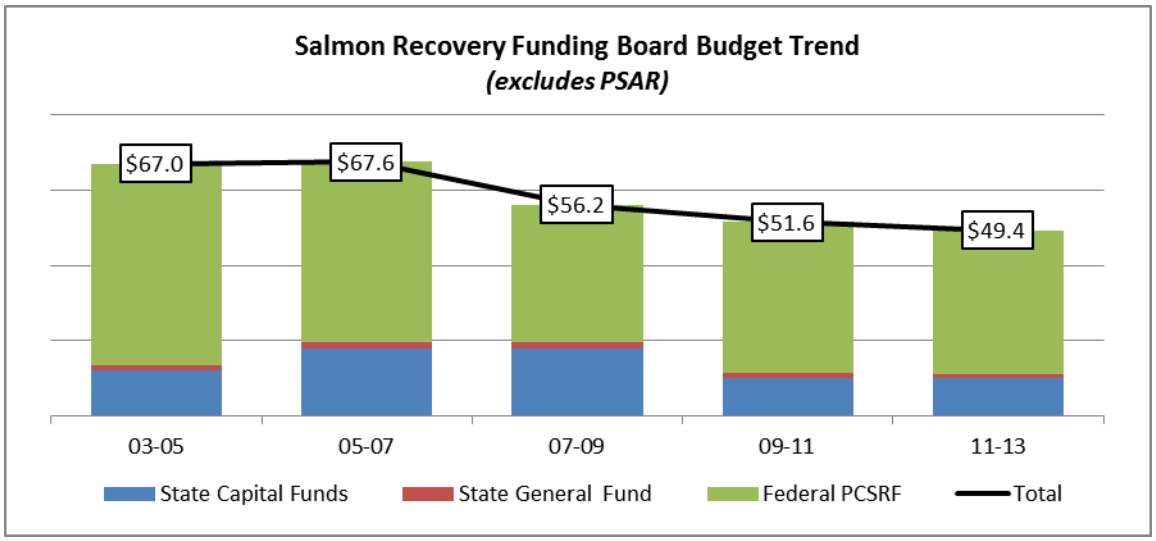
[2] Administration is limited to 3 percent of capital funds.

[3] General fund dollars also support the GSRO and RCO executive management, but those costs are excluded from the general fund numbers in this memo.

Budget Trends

As shown in the following chart, the total funding available from the federal and state budgets has declined since the 2005-07 state biennium.

- The amount of state capital funds dropped significantly from 2007-09 to the 2009-11 biennium, and then remained at that lower level in 2011-13.
- The amount of state general fund dollars for lead entities has declined in each of the past three biennia.
- The total amount of federal PCSRF funding dropped from $80 million to $65 million between federal fiscal years 2011 and 2012. Washington receives only a portion of this money.



In the current biennium, the board received $10 million of bond funds from the capital budget, $1.0 million from the state general fund for lead entities[4], and about $38.3 million from the federal PCSRF grant[5]. These funding levels would support habitat protection and restoration projects, capacity, and monitoring at the levels approved by the board in May 2011. Based on the funding trends and economic conditions, RCO staff expects that funding for future biennia will be at or below the level for this biennium.

[4] At the time of this writing, the RCO anticipates that the 2012 legislature will reduce the state general fund support for lead entities by $50,000, with the expectation that the funds will be backfilled with federal dollars.

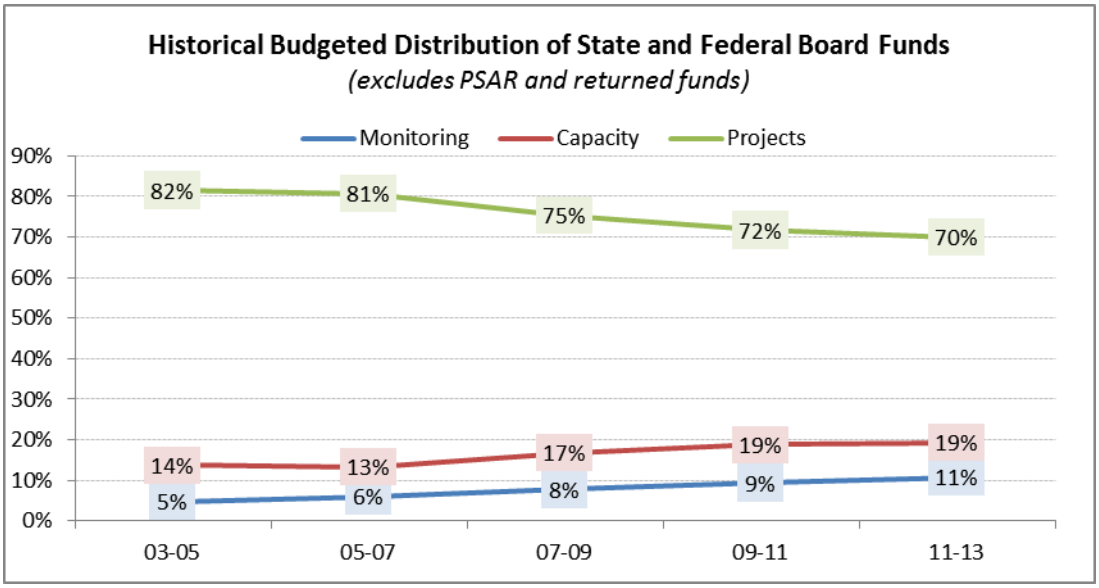
[5] Estimate based on a total state award of $22.75 million for federal fiscal year 2012.

Trends in the Funding Approach

Every two years[6], the board decides how much of its budget to allocate to projects, monitoring, and capacity for the biennium. The decision is based on the actual amount in the state budget and the anticipated amounts in the next two federal budgets, less 3 percent for RCO administration.

The amount allocated to monitoring is typically 10 percent of the federal PCSRF award, as required by the federal grant. The state general fund dollars are dedicated to lead entities. The board then decides how to allocate the remaining balance between projects and capacity (lead entities and regions). The board has opted to maintain funding for lead entities and regions at essentially status quo levels for several biennia. One result has been that as the total funding decreases, the percent budgeted for projects has declined. The board also has elected to backfill cuts to the lead entities state general fund dollars with project dollars, also contributing to the decline.

The amounts for the 2011-13 biennium reflect the proposed distribution of funds if the federal appropriation for PCSRF is $65 million in 2012, and if Washington State receives $22.75 million of that funding (based on the typical percent awarded to the state).

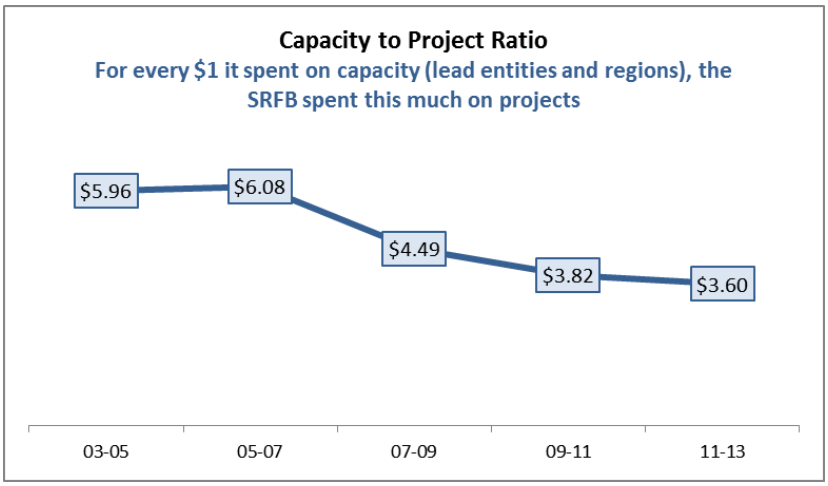


Capacity to Project Ratio

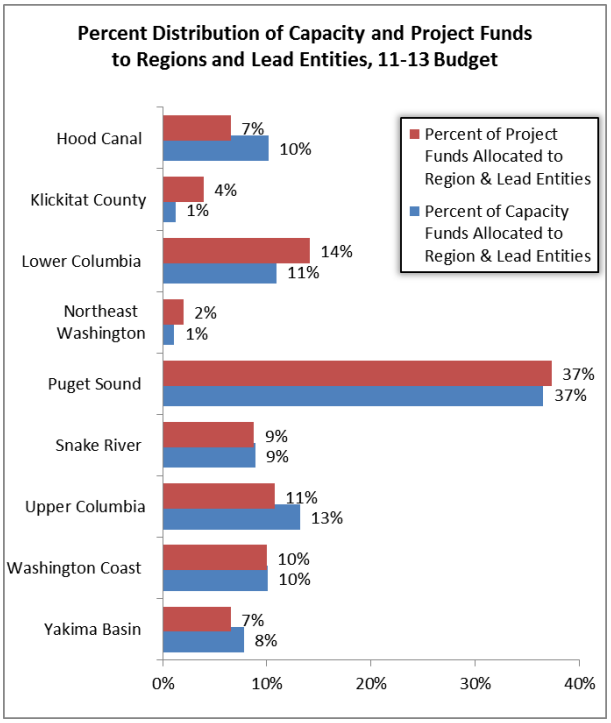
At the request of the board, staff assessed this trend in terms of a capacity to project ratio. The ratio shown in the chart reflects only board funds. This ratio has limited utility, however, because it does not reflect the additional project funds that regions and lead entities receive from other sources.

[6] Generally at the May board meeting before the start of a new biennium

As described in *Funding for Salmon Recovery in Washington State, March 2011* (commonly referred to as the "Canty Report"), regions secure funding for capacity, monitoring, and projects from many other sources including Bonneville Power Administration, local governments, federal sources, and other state sources. The report states that the "*statewide cost of the habitat-related elements of salmon recovery at the regional level for the period 2010-2019 is estimated at $5.5 billion, with $4.7 billion in capital costs and nearly $800 million in non-capital costs.*" This means that for every $1.00 regions plan to spend on non-capital costs (operations, monitoring, and outreach), they anticipate spending $5.80 on capital projects. This is not directly comparable to the board's funding ratio above, but does provide some perspective on the broader responsibilities and funding for the regions. Similar information specific to the lead entities is not available as of this writing.



Staff also considered the percent of capacity and project funds allocated to each lead entity and region. Some of the regions are combined with the lead entities, so this comparison is most accurately viewed with the lead entity allocations rolled into the regional allocations. As shown in the chart to the right, the capacity and project funds are fairly well aligned.



Staff found the same result – that capacity and project funds are fairly well aligned, with only a few exceptions – when doing the same comparison for lead entities that are not combined with a region.

Potential Implications for 2013-15

Currently, the "best case" scenario for the 2013-15 biennium appears to be to have it mirror the funding for state fiscal year 2012. If this were the case, the board would need to address a two

percent reduction in its overall budget compared to this biennium. It is a drop of nearly 28 percent since the high funding mark in 2005-07.

Estimated Funding for the Salmon Recovery Funding Board in 2013-15 if Budget Reflects FFY 2012

Dollars in millions	Fiscal Year 14	Fiscal Year 15	Total
State Capital Funds	$10.0		$10.0
State General Fund	$1.0		$1.0
Federal PCSRF	$18.6	$18.6	$37.2
Total	$29.6	$18.6	$48.2

This estimate assumes that Washington State partners will continue the current agreement that $15 million will be allocated to habitat if the PCSRF total for the state is between $22-25 million. Without that agreement, the cut to the board likely would be closer to the estimated PCSRF cut of 10 percent (as compared to this biennium). Due to the PCSRF calculation, hatchery/harvest projects, monitoring, and RCO administration all take greater cuts than projects and capacity.

After adjustments for the required monitoring and 3 percent RCO administration, the board would have $41.3 million to allocate to projects and capacity. The board's current budget for projects and capacity is $41.6 million.

Staff Recommendation

The board could take a "wait and see" approach to the potential reductions. However, the board already has proposed several options for addressing potential shortfalls, so staff recommends that the board select two or three for further analysis in the coming year. These options should be considered in light of the board's previous discussions and requests to staff for data.

Staff also recommends that the board consider ways to explore alternative funding strategies and seek partnerships that contribute to the Salmon Recovery Funding Board mission. This might involve convening a funding committee that could review available options, seek additional public or private funding, and reach out to organizations that may be involved with salmon issues but not traditionally involved with the board's processes (e.g., user groups, business, and rural communities). While there is no immediate silver bullet for stable long-term funding, this work could start a foundation on which to build.

Board Discussion and Analysis Efforts to Date

Over time, the board has tried several approaches to determine the "best" ratio of capacity to project funding. These efforts have included staff analysis, surveys of lead entities and regions, and work done by the Regional Allocation Task Force. Given the structure of salmon recovery in Washington State and funding levels that are uncertain from year-to-year, it is difficult to provide a mathematical answer.

Ultimately, the best allocation is the one that works, as outlined in the strategic plan. For the board's purposes, this would be the allocation that reflects the board's prioritization of projects

and the scope of work for the lead entities and regions, while also providing the required monitoring.

May 2011 Funding Decisions

The board voted to approve status quo funding for regions and lead entities in the 2011-13 biennium. Under the funding assumptions at the time, this funding allocation would still allow the board to offer $18 million grant rounds in each fiscal year due to returned funds. The board discussion reflected loss of local funding for lead entities, the interplay between projects and capacity, and the assumption that additional funds for projects were easier to secure than funds for staffing.

May 2009 Funding Decisions

In May 2009, the board addressed significant cuts in the state budgets for projects ($8 million) and lead entities ($140,000). At the board's request, regions and lead entities presented options for taking an eight percent cut to their budgets. Ultimately, the board opted to maintain status quo funding for capacity by using returned funds. The $8 million reduction in state funds resulted in cuts of about $1.9 million to both the 2009 and 2010 grant rounds. The board was able to offer $18 million in grants for 2009 and $20 million for 2010.

Suggested Options for Consideration

Board members asked staff to consider the following options and present some initial findings about potential cost savings in April.

Lead entity consolidations: structural and process efficiencies

At its December 2011 meeting, the board directed staff to explore the possibility of consolidating existing lead entities. Based upon this board direction, staff engaged in conversations with the Upper Columbia Regional Organization and the Chelan and Okanogan County lead entities. The RCO director asked that the Upper Columbia Regional Salmon Recovery Board consider consolidating the existing lead entities into a single lead entity within the regional organization. The Upper Columbia board elected to consolidate lead entities, and the structure and approach for doing so is currently being discussed by the region and Chelan and Okanogan Counties.

The RCO Director also has requested that the Puget Sound engage in a conversation to consider possible structural and process changes within that region. It is expected those conversations will begin shortly.

Staff recommends that this option move forward with the efforts that have already begun.

Across-the-board or prorated cuts

An across-the-board cut to both projects and capacity funds is a simple approach; staff would identify the amount of cut needed, apply the corresponding percent cut to the total capacity and project budgets, and present those figures to the board for approval.

In a prorated cut approach, staff would identify the amount of cut needed, and prorate it based on the percentage of funds currently allocated to capacity and projects. Project funding would take a greater amount of cuts.

In either approach, the percent allocation to individual regions and lead entities would remain the same.

Staff recommends that the prorated approach be considered, with a provision that each regional area and its lead entities determine how to implement the reduction. Staff recommends further consideration of this approach be the default response to any potential budget reductions if other approaches fail.

Biennial grant round

The board discussed this option in May 2009. At that time, regions and lead entities were not generally supportive of the idea because it was not clear what the actual savings would be or if the potential benefits would be worth the effort.

Increase required matching funds

With limited exceptions, applicants must provide a minimum 15 percent match to demonstrate local commitment and support of the project. Since fiscal year 2004, salmon project sponsors have provided an average of 34 percent matching funds for funded projects.

Given that the average match is already considerably higher than the required 15 percent, staff does not recommend further analysis of this approach.

Require matching funds for region and lead entity capacity funding

Staff would need to work with regions and lead entities to assess (a) the amount of funding and/or in-kind services already secured by the regions and lead entities for operations, (b) the availability of other funds that could be used as match, and (c) the amount of matching funds to require. Unless the grant awards were reduced by the amount of match provided, or withheld due to lack of match, this option would have no effect on board funding.

Staff does not recommend further consideration of this approach because the potential savings do not appear to be significant, many lead entities already receive in-kind support from their organizations that is not accounted for, and, in some areas, such a requirement could be a significant burden.

Fund capacity from other funding in overall board budget

At this point, the board's options are limited to the project grant round dollars, a combination of state capital funds and federal PCSRF funds. Payment of capacity from these sources must be balanced with project funding.

State or regional process for project selection, rather than local

In theory, this approach would place a greater burden on the regions, RCO staff, and/or the review panel for the project selection process, freeing lead entities to focus on outreach and

other activities. The effect on the budget is unclear without further research. Staff does not recommend further consideration of this approach because it would require statutory change.

Eliminate or reduce the available amount for cost increases

Currently the board reserves $750,000 each year for project cost increases. Cost increases are approved according to the criteria in Manual 18, Appendix B. Since January 1, 2010, the RCO and board subcommittee have approved 30 cost increases totaling $1.6 million. The average cost increase was $54,593; 11 of the 30 cost increases were over $75,000. Any funds not spent on cost overruns are moved forward into the next grant round for projects.

Staff recommends reducing the reserve to $500,000 and setting a maximum cost increase per project of $75,000. Although this would not yield significant savings, it would increase the funds available up front in each grant round.

Eliminate ability to pay more than 10 percent over appraised value

On rare occasions, RCO has approved a sponsor's request to pay up to 10 percent more than the appraised value for a property. In these situations, the sponsor must use existing funds in their agreement to cover the cost; no new funds are approved. Staff does not recommend considering this option further because there would be no savings.

Next Steps

Staff recommends conducting further analyses to support consideration of the following three options, as well as any others directed by the board:

1. Structural and process efficiencies
2. Prorated cuts across the capacity and project budgets
3. Eliminating or reducing the available budget for cost increases

Staff also will work with the lead entities and the regional organizations to obtain their input and develop options further. Regular updates will be provided to the board through the course of 2012 with any final decisions to be made by the board in 2013.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **6**

Meeting Date: April 2012

Title: PSR Grant Awards – Allocate Funds from the 2011 Grant Round

Prepared by: Brian Abbott, Salmon Section Manager

Approved by the Director: Kaleen Cottingham

Summary

The Puget Sound Partnership and San Juan County Lead Entity have submitted one project with a request for funding from the 2011 grant round: President Channel Acquisition. Concerns from the board's Technical Review Panel process prompted the lead entity to withdraw the project until the concerns could be addressed after the December 2011 funding meeting. The Review Panel concerns have since been resolved and the project has been cleared for funding.

Board Action Requested

This item will be a:

- ☒ Request for Decision
- ☐ Request for Direction
- ☐ Briefing

Proposed Motion Language

Move to approve $250,000 in Puget Sound Restoration (PSR) funds for project #11-1577, President Channel Shoreline.

Background

The legislatively-approved state 2011-13 capital budget includes $15 million for the Puget Sound Restoration (PSR) grant program. The Salmon Recovery Funding Board awarded $11,589,542 of these funds in December 2011.

One lead entity, along with the project sponsor, now is seeking a grant award for some of the remaining funds. The San Juan County Lead Entity is seeking $250,000 of their remaining 2011-13 PSR allocation of $412,934. None of the other lead entities with an outstanding balance are seeking funds at this time.

The San Juan County Lead Entity has reserved enough of their PSR allocation to fully fund the President Channel Shoreline project request.

Lead Entity	Amount requested for April 2012 approval	Remaining 2011 PSR funds
San Juan County	$250,000	$412,934

Project Information

Project Number	Type	Project Name	Project Sponsor	PSR Amount	Match	Total
11-1577	Acquisition	President Channel Shoreline	San Juan County Land Bank	$250,000	$665,000	$915,000

Project Description

President Channel hosts large numbers of juvenile chinook salmon as they start their journey to the open ocean. The President Channel Shoreline Project includes approximately 4,000 feet of undeveloped shoreline and 50 acres on the western side of Orcas Island.

The applicants are seeking SRFB funds to purchase roughly 20 acres and 2,500 feet of shoreline. The shoreline features a number of significant features for juvenile salmon, including several pocket beaches and kelp beds in the nearshore. Its upland is largely forested with mature douglas fir, pacific madrone, shore pine, and remnant garry oak. The property shoreline is vulnerable to development.

The attached project summary and Review Panel evaluation comment form include more information on this project (Attachment A).

Project Review Process

This PSR project was evaluated through the board's 2011 grant round review process. The Review Panel attended the early application site visit and provided comments on the project.

At that time, the Review Panel questioned the project's benefit to salmon. In the early application form, reviewers noted "The application needs to demonstrate the specific benefits to salmon recovery that acquisition of the site will produce and the specific threats to salmon habitat and/or habitat-forming processes that the acquisition will prevent." Reviewers also noted that it was unclear whether the Jolley Property shoreline was a priority for protection in the lead entity's recovery strategy.

The lead entity followed their local process of technical and citizen review before submitting the project to RCO by the application due date of August 26. The local watershed technical

committee and the RITT reviewed this project and determined it is consistent with the regional and watershed recovery strategies.

Nevertheless, the Review Panel questions persisted throughout the summer and fall review processes. The project was classified as a Project of Concern in October 2011 because the Review Panel did not believe they had adequate information to assess the project's direct benefit to protecting high priority salmon habitat. The lead entity removed the project from consideration before the December 2011 funding meeting.

Since that time, the applicant has lowered their request amount from $750,000 to $250,000. The Review Panel believes that the new amount more closely matches the value of the conservation easement to salmon recovery. In addition, the Review Panel noted "the sponsor and lead entity indicated that the area's salmon prioritization project (a current SRFB planning grant) has drafted broad-scale priority areas, which include the Jolley property. This prioritization is based on the shoreline's likelihood of use by juvenile Chinook, juvenile forage fish, and adult forage fish." These factors persuaded the Review Panel to overturn their "Project of Concern" (POC) designation in January 2012.

The project is proposed for PSR funding, so the sponsor has ensured that the project would advance the implementation of the Puget Sound Salmon Recovery Plan and the Partnership's Action Agenda. Further, the Leadership Council of the Puget Sound Partnership and the Puget Sound Salmon Recovery Council have approved the project identification process.

Attachment

A. Project Summary and Technical Review Panel Evaluations

Salmon Recovery Funding Board Individual Comment Form

Lead Entity: San Juan

Project Number: 11-1577A

Project Name: President Channel Shoreline

Project Sponsor: San Juan County Land Bank

Grant Manager: Mike Ramsey

Lead Entity	Date	Application Complete	Status
Early App. Review-Site Visit	*6/16/11*	**No**	**NMI**
July Review Panel Mtg.	7/6/2011		**NMI**
Post Application	9/30/11	**No**	**POC**
Final	10/28/11	**No**	**POC**
Final PSAR Review	1/30/12	**Yes**	**Clear**

Status Options	
NMI	Need More Information
POC	Project of Concern (Post Application and Final only)
FLAGGED	Needs full panel discussion
CLEAR	Project has been reviewed by SRFB Review Panel and is okay to continue in funding process.

EARLY APPLICATION REVIEW/SITE VISIT - REVIEW PANEL COMMENTS

Date: 6/21/11

Panel Member(s) Name: Tom Slocum and Jim Brennan

Early Project Status:

Project Site Visit? Yes (6/16/11)

1. Recommended improvements to make this a technically sound project according to the SRFB's criteria.

The sponsor proposes to acquire fee simple title to a 20-acre property on the northwest coast of Orcas Island. The land is primarily forested upland with about 1200 feet of steep, rocky shoreline and two or three small "pocket beaches." The site is bordered by WDNR land to the south and a protected private parcel to the north.

The application needs to demonstrate the specific benefits to salmon recovery that acquisition of the site will produce and the specific threats to salmon habitat and/or habitat-forming processes that the acquisition will prevent. While the site's location on the northwest coast of Orcas Island is in general a high priority protection area identified in the WRIA 2 strategy, it does not appear that residential development at the site under current zoning levels would result in a particularly heavy negative impact to salmon habitat and habitat-forming processes. There are no feeder bluffs in the area and the removal of a relatively few view trees, as is common practice for residential development, would not appear to significantly impact nearshore habitat. While it is obvious that acquisition of the site would support the sponsor's aesthetic and public recreation land preservation goals, the sponsor needs to clearly link the proposed acquisition's value for supporting specific salmon protection objectives.

2. Missing Pre-application information.

In the final application, please provide the standard evaluation proposal and supplemental information for acquisitions, as outlined in Manual 18.

3. Comments/Questions:

Salmon Recovery Funding Board Individual Comment Form

EARLY APPLICATION REVIEW/SITE VISIT - LEAD ENTITY & PROJECT SPONSOR RESPONSES

Directions: Lead Entity or Sponsor must post their response to Review Panel comments in **PRISM** with document name: Response to Review Panel Comments. Attach this as a separate document in PRISM to become part of your application, and send your grant manager an e-mail.

All Flagged and NMI projects will be reviewed at the July 6th full Review Panel meeting. Sponsor responses received no later than one week prior to the meeting will be considered by the Review Panel.

Response:
Attach Response to PRISM, and send your Grant Manager an e-mail.
Grant Manager will put in the PRISM attachment number here.

JULY 6TH REVIEW PANEL MEETING - REVIEW PANEL COMMENTS

Date: July 29, 2011

Panel Member(s) Name: Tom Slocum and Jim Brennan

Early Project Status: NMI

1. Recommended improvements to make this a technically sound project according to the SRFB's criteria.

The evaluation proposal asserts briefly that the kind of rocky shoreline / bull kelp habitat that characterizes the project site is important for salmon, but provides no documentation on how the site fits within WRIA 2's overall salmon recovery strategy, or how ESA-listed salmonids actually utilize the shoreline at the site. SRFB funding has supported an in depth study of Chinook salmon utilization of WRIA 2 coastal waters, but the proposal does not mention how the Jolley site fits within the specific findings of this study, or why the acquisition of this particular site is necessary to protect specific high priority habitat conditions that are identified in this and other assessments of salmon ecology that have been completed in WRIA 2. The proposal's general observation that coastal development tends to have a negative impact on the quality of natural habitat is not sufficiently strategic to demonstrate the benefit and certainty of the proposed project.

2. Missing Pre-application information.

3. Comments/Questions:

JULY 6TH REVIEW PANEL MEETING - LEAD ENTITY & PROJECT SPONSOR RESPONSES

Directions: Lead Entity or Sponsor must post their response to Review Panel comments in **PRISM** with document name: Response to Review Panel Comments. Attach this as a separate document in PRISM to become part of your application,

and send your grant manger an e-mail.

Response:
Attach Response to PRISM, and send your Grant Manager an e-mail.
Grant Manager will put in the PRISM attachment number here.

POST APPLICATION - REVIEW PANEL COMMENTS

Date: September 30, 2011

Panel Member(s) Name: Full Review Panel

Application Project Status:

Refer to Manual # 18, Appendix E-1, for projects that are not considered technically sound. In the "Why" box explain your reason for selecting this as a project of concern.

1. Is this a draft project of concern (POC) according to the SRFB's criteria? (Yes or No) Yes

Why? Criteria #2 and #4, as explained in the July 29, 2011 comments listed above. The applicant did not address these comments.

2. If YES, what would make this a technically sound project according to the SRFB's criteria?
The applicant must demonstrate the benefit of the project to supporting WRIA 2 salmon recovery goals.

3. If NO, are there ways in which this project could be further improved?

4. Other comments:

POST APPLICATION - LEAD ENTITY & PROJECT SPONSOR RESPONSES

Directions: Lead Entity or Sponsor must post their response to Review Panel comments in **PRISM** with document name: Response to Review Panel Comments. Attach this as a separate document in PRISM to become part of your application, and send your grant manger an e-mail.

Response:
Attach Response to PRISM, and send your Grant Manager an e-mail.
Grant Manager will put in the PRISM attachment number here.

FINAL REVIEW PANEL COMMENTS

Date: 10/28/11

Panel Member(s) Name: Full Review Panel

Final Project Status:

Salmon Recovery Funding Board Individual Comment Form

Refer to Manual # 18, Appendix E-1, for projects that are not considered technically sound. In the “Why” box, explain your reason for selecting this as a project of concern.

1. Is this a project of concern (POC) according to the SRFB’s criteria? (Yes or No) YES.

Why? Criteria #2, as explained in the comments listed above.

The project sponsor has not sufficiently addressed previous comments/concerns of the Review Panel. Specifically, the project sponsor has not provided adequate information to show a direct benefit to salmon, how the proposed acquisition provides such a benefit, and the potential threat to salmon if this property is not acquired. Since the arrangements for the full funding package haven’t yet been figured out, and the WRIA 2 strategy is still in flux pending completion of the "Pulling it all Together" project, we believe that the project is premature and at this time we cannot confidently assess the project's direct benefit to protecting high priority salmon habitat.

2. If YES, what would make this a technically sound project according to the SRFB’s criteria?

3. If NO, are there ways in which this project could be further improved?

4. Other comments:

The application materials are still incomplete: the application lacks responses to the “Supplemental Questions” for acquisition projects, which are listed in Section 7 of Manual 18.

JANUARY 2012 REVIEW PANEL COMMENTS IN CONSIDERATION OF 2012 PSAR FUNDING REQUEST

Date: 1/30/12

Panel Member(s) Name: Full Review Panel

Final Project Status:

Refer to Manual # 18, Appendix E-1, for projects that are not considered technically sound. In the “Why” box, explain your reason for selecting this as a project of concern.

1. Is this a project of concern (POC) according to the SRFB’s criteria? (Yes or No) No.

Why?

Based on the updated project proposal submitted in January 2012, the proposed funding request is $250,000 to support the sponsor’s acquisition of the Jolley property along President’s Channel. This is a reduced funding request that approximately matches the value of a conservation easement for the property – which the current landowner is unwilling to allow.

The project sponsor and lead entity indicated that the area’s salmon prioritization project has drafted broad-scale priority areas which include the Jolley property. This prioritization is based on the shoreline’s likelihood of use by juvenile Chinook, juvenile forage fish, and adult forage fish.

Salmon Recovery Funding Board Individual Comment Form

2. If YES, what would make this a technically sound project according to the SRFB's criteria?

3. If NO, are there ways in which this project could be further improved?
The sponsor describes future long-term stewardship of the property (question 3C in application) to include: "likely open the property to pedestrian and kayak access." The Review Panel interprets this to mean no infrastructure (e.g., no roads, parking) and minimal disturbance (e.g., unpaved walking trail) to the property. If this interpretation is inconsistent with the sponsor's intent, then further clarification by the sponsor is necessary.

4. Other comments:

This application is being reviewed in January because the LE and sponsor want to put the project forward for open-round PSAR funding at the April Board meeting.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **7**

Meeting Date: April 2012

Title: Recommendations for Allocating Remaining 2011 PCSRF Monitoring Funds

Prepared by: Megan Duffy, GSRO Executive Coordinator

Approved by the Director: Kaleen Cottingham

Summary

At its August 2011 meeting, the Salmon Recovery Funding Board (board) directed staff to convene a monitoring subgroup to provide the board with recommendations to allocate the remaining, unobligated federal fiscal year 2011 Pacific Coastal Salmon Recovery Fund (PCSRF) monitoring funds. This memo describes the workgroup process and identifies recommendations for board consideration and decision.

Board Action Requested

This item will be a:

- ☒ Request for Decision
- ☐ Request for Direction
- ☐ Briefing

Proposed Motion Language

Move to approve $797,242 in federal fiscal year 2011 Pacific Coastal Salmon Recovery Fund dollars for the projects shown in Attachment A.

Background

The State of Washington competes for federal dollars through the Pacific Coastal Salmon Recovery Fund (PCSRF) each year to fund salmon recovery projects throughout the state. A requirement of the PCSRF grant program is that 10 percent of the overall state award be dedicated to monitoring projects.

In federal fiscal year 2011, the State of Washington had $2.5 million in PCSRF monitoring funds to support statewide monitoring efforts. The Salmon Recovery Funding Board (board) already

has allocated a portion of the $2.5 million total to fund the board's ongoing monitoring programs. Those allocations are shown in the following table:

Program	Amount	Date Awarded
Intensively Monitored Watersheds	$1,207,254	May 2011
Smolt Monitoring	$208,000	August 2011
Project Effectiveness (Tetra Tech)	$287,000	December 2011
Total FFY 2011 PCSRF Obligated	**$1,702,254**	

The remaining unobligated amount of FFY 2011 PCSRF monitoring funds is $797,746.

To help determine how the remaining funds should be allocated, the board directed staff in December 2011 to convene a workgroup to develop, discuss, and recommend potential monitoring projects.

Monitoring Proposal Review Process

Staff convened a workgroup consisting of representatives from the seven regional recovery organizations, Northwest Indian Fisheries Commission, Washington Department of Fish and Wildlife, Department of Ecology, and RCO staff. The monitoring workgroup met three times and worked on the effort between meetings in order to produce recommendations for the April board meeting.

Step One: Identify Potential Monitoring Efforts

To begin the workgroup's conversation, staff developed an initial list of potential monitoring projects based upon (1) input from a variety of sources and (2) monitoring projects funded in the past. Workgroup members received a summary of these potential monitoring projects and a table identifying the annual estimated cost for each.

The workgroup used its first meeting to (1) confirm the list of projects for consideration, including any new proposals; (2) discuss initial project proposals and comments received before the meeting; and (3) identify any additional information required for the discussion.

The group considered all potential monitoring projects in light of the following criteria[1]:

- Does the proposed project address/support a high-level indicator or question, or high-priority research question?
- Will the proposed activity provide data/guidance/support/methods needed for ESA de-listing?

[1] These criteria were employed by the Monitoring Forum when considering monitoring requests in the past.

- Will the proposed activity provide high priority data/guidance/support/methods identified in an adopted salmon recovery plan?
- Is the project consistent with the Monitoring Forum's monitoring framework and the Forum's adopted high-level indicators and protocols?
- Does the project complement or support other monitoring or planning efforts?
- Does the project fill a data/guidance/support/methods gap or baseline identified in the Comprehensive Monitoring Strategy?
- Is it clear who needs and will use the resulting data?
- Does the project avoid duplicating work being done by any other entity?
- Is this the right entity to perform the monitoring activity?
- Will the data and/or analyses be readily available for all entities?

Step Two: Review and Rank Proposals

Based on the first workgroup discussion, staff refined existing project proposals and drafted new proposals. The workgroup met a second time to discuss the new and revised proposals. At that meeting, the group decided that no new proposals would be accepted.

Following the second meeting, staff sent the final version of each monitoring proposal to the workgroup members. We asked the members to rank each proposal based on the criteria identified above. We also asked them to consider the proposals within the context of existing Salmon Recovery Funding Board and Monitoring Forum documents[2]:

- The Washington State Framework for Monitoring Salmon Populations Listed under the Federal Endangered Species Act and Associated Freshwater Habitats
- The Washington Comprehensive Monitoring Strategy and Action Plan for Watershed Health and Salmon Recovery
- The Monitoring and Evaluation Strategy for Habitat Restoration and Acquisition Projects
- The Monitoring Forum's Indicators and Protocols for Monitoring Salmon Recovery and Watershed Health

Step Three: Review Ranking and Make Recommendation

Workgroup representatives submitted their rankings, which were compiled by staff and presented to the group at its third meeting. At that meeting, the group considered the outcomes of the ranking exercise and developed a recommendation for the board's consideration.

[2] These documents are available online at www.rco.wa.gov/doc_pages/other_pubs.shtml#monitoring.

Workgroup Recommendation

The workgroup recommends the board fund the monitoring projects as summarily identified in Attachment A. The detailed monitoring project proposals are in Attachment B. The combination of proposals:

- Implements past recommendations of the Monitoring Forum to include floodplain enhancement and instream habitat projects in the project effectiveness monitoring program
- Expands a successful WDFW pilot assessing land use changes over time (the initial pilot was funded by the SRFB)
- Supports fish-in fish-out monitoring efforts on the Coast by investigating the use of a newer technology to replace traditional fish monitoring equipment
- Addresses a monitoring gap important to effective adaptive management through development of a consistent approach to project implementation assessment
- Supports a multi-agency process that is seeking to develop a consistent Washington state-wide process for tracking and evaluating river estuary restorations
- Meets the potential monitoring objectives identified in the 2011 PCSRF application

The workgroup further concluded that it would be constructive to continue the monitoring conversation to discuss how best to meet monitoring needs and priorities. While workgroup members recognize the value of each of the PCSRF 2011 recommended monitoring efforts, they believe a broader, more comprehensive conversation would support an approach with the greatest statewide benefit, particularly in light of limited monitoring funds. This would include considering how best to leverage existing efforts, to fill priority gaps, and to effectively communicate data analyses results and lessons learned.

Staff Recommendation

Staff recommends that the board approve the monitoring workgroup's recommendations for allocating the remaining FFY 2011 PCSRF monitoring funds. Staff further recommends that any entity implementing a recommended monitoring project report to the board within one calendar year of the contract start date regarding the status of their efforts. Additionally, staff recommends that GSRO staff support a continued conversation to focus on monitoring issues as scoped by workgroup members.

Attachments

A. Summary Table of Proposed Monitoring Efforts
B. Monitoring Effort Proposals

Summary Table of Proposed Monitoring Efforts

Total PCSRF funds available are $797,746.

Group Ranking	Proposal	Estimated Cost	Workgroup Funding Recommendation	Project Description
1	Implementation Assessment and Monitoring of Long-term Project Function	$177,842	$177,842	This project will continue to develop and test an implementation monitoring and assessment framework that can be used in all salmon recovery regions. The objective is to develop a consistent, standardized approach for assessing the implementation of recovery projects. Standardized protocols would be developed to guide collection of quantitative information regarding location, magnitude, quality and physical effect of each project.
2	Coordinating Monitoring at the Project Scale	$310,000	$310,000	This project will (1) improve communication of monitoring results with the regions and lead entities to help better assess effectiveness of projects in addressing limiting factors (2) add floodplain and instream structures to the categories being monitored in the existing project effectiveness monitoring program (3) create better links between statewide and regional monitoring needs by identifying common monitoring priorities.
3	Reporting Regional Progress towards Summer Chum habitat recovery	$72,000	$72,000	This project will seek to conduct an implementation monitoring approach for completed projects in order to improve magnitude and function metrics and connect those metrics to recovery goals. This effort will be coordinated with the Implementation Assessment and Monitoring of Long-term Project Function project (ranked #1, above).
4	Estuarine and nearshore protocols	$9,200	$9,200	This project is part of a larger effort that will develop a consistent statewide process for tracking and evaluating river estuary restorations. This project will compare & analyze existing data sets and identify common metrics that are used across existing estuary monitoring programs in Puget Sound, lower Columbia River, and the Coast. These metrics will be compared as part of the effort to develop standardized protocol.

Group Ranking	Proposal	Estimated Cost	Workgroup Funding Recommendation	Project Description
5	DIDSON (Dual Frequency Identification Sonar) – Lake Ozette	$109,200	$104,200	This project will compare traditional approaches for monitoring salmon abundance (weirs) with a more technological method – Dual Frequency Identification Sonar). The Makah Tribe will use both weirs and DIDSON methods for at least two years, and then compare data for trend analysis. The project will articulate advantages and disadvantages of switching from traditional to technological methods.
6	Analysis of disparate data	$24,000	$24,000	This project is a pilot to help assess if, and how best, to crosswalk existing data sets from status and trends monitoring programs and the SRFB project effectiveness program. The effort will help determine whether the data can be directly compared or if there needs to be calibration between data sets in order to combine them.
Unanimous support in first meeting	High resolution change detection	$100,000	$100,000	This project uses high-resolution aerial imagery to detect changes in land cover. The board initially funded a test in two of the seven regions. This funding would expand the board's initial project by piloting the method in at least one WRIA in each of the other five regions.
Withdrawn	Salmon Population-habitat data integration	$110,700	Withdrawn	
	Total Amount Proposed	**$802,242**	**$797,242**	

Monitoring Effort Proposals

- Implementation Assessment and Monitoring of Long-term Project Function
- Coordinating Monitoring at the Project Scale
- Reporting Regional Progress towards Summer Chum habitat recovery
- Estuarine and near shore protocols
- DIDSON – Lake Ozette
- Analysis of disparate data
- High resolution change detection

Implementation Assessment and Monitoring of Long-Term Project Function in One East-Side (Upper Columbia) and One West-Side (Lower Columbia) Region as an Expanded Pilot for Potential Future State-Wide Efforts

Project Summary

The goal of this project is to continue development and testing of an implementation monitoring and assessment framework that can used, or readily adapted for use, in salmon recovery regions across the state. This framework will provide for the consistent and technically sound monitoring of habitat protection and restoration projects needed to monitor performance over time. The standardized metrics and data gathered will support the evaluation and reporting of progress towards recovery goals, assist in the adaptive management of habitat protection and restoration strategies and methods, and facilitate the long-term management and maintenance of projects needed to maximize and sustain fish benefits.

To achieve this goal, the project will:

- Continue to implement and refine the *Draft 2012 Upper Columbia Protocol for Implementation Assessment and Monitoring of Long-Term Project Function* (Draft 2012 Protocol, Burgoon and White 2012, see Attachment A at the end of this proposal for a summary description of the draft protocol) and methodologies developed under a previous BPA/NWPCC/UCSRB pilot effort. Pilot implementation efforts will continue for a second year in the Upper Columbia and will be initiated in the Lower Columbia to allow methods to be refined for a larger number of project types and in different environmental conditions than exist in the Upper Columbia, as well as providing a larger sample of projects against which methods could be tested and refined.
- Convene a Council of Regions (COR) working group to review draft protocols and methods and lessons learned in the field to identify measures and refinements that would enhance the utility of the monitoring and assessment framework and facilitate its application in other salmon recovery regions.
- Coordinate with the SRFB Project Effectiveness Monitoring project to develop a methodology for integrating project effectiveness and project magnitude and quality metrics and data to more effectively and efficiently assess progress in meeting habitat and salmon recovery goals.
- Define relationships and work flow needed to allow recording implementation monitoring data associated with project information in the Habitat Work Schedule and SalmonPORT systems.

Background and Project Description

Background

Since 1991, several populations of anadromous salmonids inhabiting the Columbia Basin have been listed as threatened or endangered under the Endangered Species Act (ESA). Upper Columbia steelhead (threatened) and Upper Columbia spring Chinook (endangered) populations have a high risk of extinction when their Viable Salmonid Population (VSP) parameters (ICTRT 2007) are evaluated.

In 1999, the Upper Columbia Salmon Recovery Board (UCSRB) established a new direction for salmon recovery in its first meeting, emphasizing a local process founded on strong partnerships to achieve conservation and economic goals for salmon recovery. The UCSRB published a pioneering document to guide recovery (Recovery Plan) (UCSRB 2007). It is one of the first recovery plans ever federally adopted for salmon and steelhead in the Columbia Basin and it was drafted by a local body. Stakeholders have been motivated into active citizen committees, watershed action teams, a trans-subbasin team, a technical team, and other collaborative groups that are working toward salmon recovery.

The UCSRB guides implementation of the Recovery Plan with an adaptive management process (NMFS 2007). Adaptive management uses the scientific method, "learning by doing," and then adapting accordingly, and is a useful tool for achieving recovery where uncertainty persists around threats, species' life history, or the effectiveness of management actions (NMFS 2007).

The Recovery Plan's goal is to restore viable and sustainable populations of naturally producing salmon, steelhead, and bull trout in the Upper Columbia Basin. Adaptive management is a critical tool for achieving recovery because it provides the flexibility to respond to a dynamic environment; other approaches that rigidly adhere to precise protocols are less likely to succeed. In a dynamic world, habitat projects affect ecosystem change and dictate subsequent project opportunities.

Adaptive management in the Upper Columbia is defined by a five-year cycle of project implementation, monitoring, analysis, and feedback. The first opportunity for analysis resulted in a workshop in January 2010 and a Synthesis Report (Ward et al. 2010). The report presented the most recent findings on the status and trends in Upper Columbia salmon and steelhead populations, threats to those populations, and the benefits accruing from habitat recovery actions undertaken during the previous 10 years. The Synthesis Report made specific recommendations to improve and better manage habitat restoration efforts.

At least 163 habitat protection and restoration projects were implemented in the Upper Columbia region between 1999 and 2010. Few of the projects have received formal implementation assessment and monitoring. And while the number and scope of habitat projects are expected to increase in the future, few of those projects have implementation/compliance or project effectiveness monitoring associated with them. In spite of its importance for decision making, detailed, consistent information about the magnitude, status, and function of habitat projects has been left for project sponsors to gather *when they have the resources to do so*. When projects are assessed, data gathering is usually of short duration and is difficult to utilize for aggregation and analysis purposes because of the lack of standardization. Also, critical pieces of data are often missing and challenges arise from inter-crew variability.

The Synthesis Report concluded that implementation/compliance monitoring is a gap and is necessary to support the Recovery Plan's adaptive management process. Adequate monitoring of the implementation of recovery projects is also identified as a need in numerous other regional plans and guidance documents (NWPCC 2010, NMFS 2008, Crawford and Rumsey 2009, UCSRB 2007).

Working with the Northwest Power and Conservation Council (NWPCC), the Bonneville Power Administration (BPA), and the U.S. Bureau of Reclamation (BOR), the Upper Columbia Salmon Recovery Board (UCSRB) has developed an approach to monitoring and tracking habitat projects. This coalition expanded an existing BOR pilot effort to collect independent (third-party) quantitative project data and

to develop draft standardized protocol for implementation assessments and monitoring. Projects are to be visited before and after implementation in the year that they are implemented to collect standardized, quantitative information about the location, magnitude, quality, and physical effect of each project. The same projects would be visited again in subsequent years to monitor project status and continued function. The Independent Scientific Review Panel reviewed the proposed pilot project in December 2011, assigning a rating of "Meets Scientific Review Criteria." BPA funded field work and initial development of draft protocol for the 2011 monitoring season.

A three person crew conducted site assessments for 2011 habitat projects and tested methods for developing project metrics based on BPA guidance. The UCSRB crew conducted assessments for 31 habitat protection and restoration projects representing 7 distinct project types. Three reports on this work will be completed by April 2012. The 2011 season demonstrated that a small, centralized crew can conduct the pre- and post-implementation work necessary to capture standardized, quantitative measurements to evaluate project status and function across a large region.

Project Description

The goal of this project is to continue development and testing of an implementation monitoring and assessment framework that can used, or readily adapted for use, in salmon recovery regions across the state. This framework will provide for the consistent and technically sound monitoring of habitat protection and restoration projects needed to monitor performance over time. The standardized metrics and data gathered will support the evaluation and reporting of progress towards recovery goals, assist in the adaptive management of habitat protection and restoration strategies and methods, and facilitate the long-term management and maintenance of projects needed to maximize and sustain fish benefits.

To achieve this goal, the project will:

- Continue to implement and refine the *Draft 2012 Upper Columbia Protocol for Implementation Assessment and Monitoring of Long-Term Project Function* (Draft 2012 Protocol, Burgoon and White 2012) and methodologies developed under a previous BPA/NWPCC/UCSRB pilot effort. Pilot implementation efforts will continue for a second year in the Upper Columbia and will be initiated in the Lower Columbia to allow methods to be refined for a larger number of project types and in different environmental conditions than exist in the Upper Columbia, as well as providing a larger sample of projects against which methods could be tested and refined.
- Convene a Council of Regions (COR) working group to review draft protocols and methods and lessons learned in the field to identify measures and refinements that would enhance the utility of the monitoring and assessment framework and facilitate its application in other salmon recovery regions.
- Coordinate with the SRFB Project Effectiveness Monitoring project to develop a methodology for integrating project effectiveness and project magnitude and quality metrics and data to more effectively and efficiently assess progress in meeting habitat and salmon recovery goals.
- Define relationships and work flow needed to allow recording implementation monitoring data associated with project information in the Habitat Work Schedule and SalmonPORT systems.

Costs for the Upper Columbia portion of the proposed project are expected to be just over $88,000 a year, assuming continued access to existing equipment, and would field a two-person field crew and a

half-time in-office coordinator, responsible for coordination with project sponsors, landowners, and other monitoring efforts, and for data management and processing. Costs for comparable tasks in the Lower Columbia recovery region assume the use of a contractor to collect field data, a project coordinator to work with sponsors and landowners and assist data management and modifications to the SalmonPORT project tracking system to accept, store, organize and display implementation monitoring data and metrics. Coordination with the SFRB Project Effectiveness and other regional monitoring efforts will be funded by the Lower Columbia Regional Organization Grant.

Upper Columbia Proposed Budget for 2012
Implementation Assessment and Monitoring of Long-Term Project Function

Item	Budget
IM Coordinator	25,000.00
Seasonal Field Crew (6.5 months)	18,421.00
Seasonal Field Crew (6.5 months)	18,421.00
Administration, Analysis, and Reporting	15,000.00
Misc. Supplies and Equipment	3,000.00
Vehicle and Travel	8,000.00
Total	**87,842.00**

Lower Columbia Proposed Budget for 2012
Implementation Assessment and Monitoring of Long-Term Project Function

Item	Budget
IM Coordinator	9,900.00
Field Data Collection, Analysis, and Reporting	45,000.00
SalmonPORT Modifications	30,000.00
Misc. Supplies and Equipment	900.00
Administration	1,200.00
Vehicle and Travel	3,000.00
Total	**90,000.00**

Project Objective and Anticipated Deliverables

Objective

The objectives of the proposed project are to:

- Continue to implement and refine the *Draft 2012 Upper Columbia Protocol for Implementation Assessment and Monitoring of Long-Term Project Function* (Draft 2012 Protocol, Burgoon and White 2012) and methodologies developed under a previous BPA/NWPCC/UCSRB pilot effort.
- Identify measures and refinements that would enhance the utility of the monitoring and assessment framework and facilitate its application in other salmon recovery regions using a Council of Regions (COR) working group to review draft protocols and methods and lessons learned in the field to identify measures.
- Develop a methodology for integrating project effectiveness and project magnitude and quality metrics and data to more effectively and efficiently assess progress in meeting habitat and salmon recovery goals in coordination with the SRFB Project Effectiveness Monitoring project.
- Define relationships and work flow needed to allow recording implementation monitoring data associated with project information in the Habitat Work Schedule and SalmonPORT systems.

Project Deliverables

A final project report summarizing the work done, the results achieved, the lessons learned, and next steps for implementation will be provided to the SRFB and made available on the Upper Columbia and Lower Columbia web sites.

A revised monitoring protocol and methods document will be generated based on the results and an assessment of the pilot implementation efforts and consultation with other regional salmon recovery organizations.

A proposed methodology for integrating project effectiveness and project magnitude and quality metrics and data to more effectively and efficiently assess progress in meeting habitat and salmon recovery goals in coordination with the SRFB Project Effectiveness Monitoring project will be prepared.

Summarized project data, including metrics related to project magnitude, quality, and physical effect for all projects visited as part of this proposed project will be made available on the Internet through the Habitat Work Schedule (UCSRB, http://uc.ekosystem.us) and SalmonPort (http://www.lowercolumbiasalmonrecovery.org).

Year-end reports for each region including summaries of information collected for each project and observations of the monitoring crew, including recommendations for maintenance, will be made available to habitat project sponsors and to the Salmon Recovery Funding Board. Raw data, such as survey data points, for projects will be available upon request.

The crews together will produce a 2012 lessons learned document that will be used to refine the Draft 2012 Protocol, and that will be posted to the protocol page on http://monitoringmethods.org.

Support for Key Management Questions

Major management questions answered by the proposed assessments and monitoring include:

- What is the magnitude and quality of habitat projects implemented to protect or restore habitat?
    - At the population or ESU scale, or even at the state scale, what magnitude of which actions have been implemented, addressing which primary limiting factors?
- What are the specific objectives of habitat projects, which known limiting factors do they address, and how are the intended to reach those objectives?
    - Are habitat projects implemented consistent with project designs, and with parameters consistent with the stated project objectives?
- What is the intended functional life of the project, and is the project still in existence and physically functioning when revisited at intervals within that life span?
    - Are physical attributes of the project within thresholds set by the project designer during the intended life span of the project?
    - Are maintenance or repair actions necessary as evidenced by thresholds identified by the project designer?

Project Implementer

Upper Columbia Salmon Recovery Board

The UCSRB is in the best position to provide implementation assessments and to conduct monitoring of long-term project function for habitat projects in the Upper Columbia. This is partly because of the neutral nature of the UCSRB as a convener and coordinator of the salmon recovery process, which allows the UCSRB to act as a third party in implementation assessment. This could become very important as mechanisms for funding long-term operation and maintenance of habitat projects are worked out.

Another reason that UCSRB is a good fit for this project is its ESU-wide role in salmon recovery. Although project sponsors are more deeply involved in the development and implementation of projects, and may have a better sense of nuances of detail related to each project, the cumulative cost of outfitting and mobilizing each project sponsor in the Upper Columbia to implement a standardized, quantitative protocol for project assessments quickly becomes very large. By providing a single, centrally-located and coordinated crew, the Upper Columbia is able to realize large savings on crew and equipment, while also overcoming potential major problems with inter-crew variability that could be introduced with many small crews each measuring only a small sample of projects.

The UCSRB is also in a good position to coordinate ongoing efforts to expand on and refine the Draft 2012 Protocol because of its role in implementing the 2011 implementation monitoring pilot and development of the protocol.

Lower Columbia Fish Recovery Board

With over a decade of experience in leading salmon and steelhead recovery, watershed enhancement, and habitat restoration efforts in the Lower Columbia region, the Lower Columbia Salmon Recovery Board (LCFRB) is well positioned to undertake efforts to develop and apply project implementation monitoring and assessment.

The Lower Columbia Salmon Recovery Region encompasses 17 river subbasins and 74 distinct salmon and steelhead populations. Chinook, coho, and chum salmon and steelhead trout are listed as threatened under the federal ESA. The LCFRB developed the Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (LCFRB 2010a) and watershed management plans (LCFRB 2006a, 2006b) in collaboration with federal and state agencies, tribes, local governments, and the public and is currently working with the same parties to implement the plans.

To support implementation of the recovery plan monitoring and adaptive management provisions, the LCFRB developed and published the Research, Monitoring and Evaluation Program for Lower Columbia Salmon and Steelhead (LCFRB 2010b). The LCFRB is actively working federal and state agencies, tribes, local governments to implement the program.

To guide habitat protection and restoration efforts called for in the recovery plan, the LCFRB has maintained a habitat strategy that sets forth habitat needs and priorities for 1,987 river reaches totaling over 2,280 anadromous river miles. Like the UCSRB, the LCFRB does not implement on-the-ground habitat projects, instead providing assistance and guidance to numerous local, state, tribal, and non-profit partners. The LCFRB guides implementation based on Recovery Plan priorities outlined in the 2010 LCFRB Habitat Strategy (LCFRB 2010c). This neutral role allows unbiased reporting of project goals, objectives, and measured outcomes.

In 2010, the LCFRB deployed a web-based habitat strategy and project tracking system, SalmonPORT (http://www.lowercolumbiasalmonrecovery.org/). The project tracking system currently follows 219 active and completed habitat restoration and protection projects. Initial system design for tracking project status and performance over the long-term has been completed.

LCFRB staff is fully qualified to oversee scientific data collection and analysis, manage grants and contracts, and report results.

Relation to Other/Existing Monitoring Efforts

Implementation assessments and monitoring of long-term project function address an information gap for salmon recovery efforts that is not covered by either status and trend or effectiveness monitoring. However, there are some relationships and similarities to existing programs, which are explained in the following sub-sections.

Upper Columbia

SRFB Reach-Scale Effectiveness Monitoring Program

The SRFB Reach-Scale Effectiveness Monitoring Program, operated by Tetra Tech EC, provides effectiveness monitoring for a random panel of habitat projects across Washington State in nine different project categories. Ten individual projects in the Upper Columbia in six project categories are currently included in the program. An additional set of sites in the floodplain enhancement and instream structures categories using the same protocol and approach are monitoring by Tetra Tech EC under funding from BPA.

With a few slight changes, many or most of the implementation assessment metrics can be derived from the surveys conducted as a part of the SRFB program. The UCSRB will coordinate with Tetra Tech EC to

obtain data from sites visited as part of the 2012 SRFB effectiveness monitoring, in order to prevent duplication.

ISEMP/CHaMP/OBMEP/WaDoE

The Integrated Status and Effectiveness Monitoring Program (ISEMP), the Columbia Basin Habitat Monitoring Program (CHaMP), the Okanogan Basin Monitoring and Evaluation Program (OBMEP), and the Washington State Department of Ecology's Watershed Health Monitoring program are coordinated efforts to provide detailed status and trends monitoring for salmon and their habitats in the Entiat, Methow, Okanogan, and Wenatchee subbasins. These status and trends monitoring efforts are designed using standardized protocols and random, spatially-balanced site locations, and have very little overlap in the values measured, and only coincidental spatial overlap where random status and trend sites happen to occur where habitat protection or restoration has been planned.

In the assessment and monitoring of protection projects, where the objective is to maintain or improve habitat condition by preventing active degradation, the Draft 2012 Protocol uses a modified "lite" version of methods from the 2010 ISEMP Stream Habitat Protocol (Moberg 2010) to characterize habitat condition.

U.S. Bureau of Reclamation Post-Implementation Monitoring Effort

The U.S. Bureau of Reclamation conducts post-implementation assessments for the portion of habitat projects in the Entiat, Wenatchee, and Methow subbasins for the portion of projects where they have had a role in development and design. The Reclamation program uses a combination of field measurements and qualitative expert assessments at the project site to answer the question "Is it working?" These post-implementation assessments result in an annual completion report which summarizes the projects covered in the report, and identifies any issues related to the projects, including any necessary repairs or modifications.

The Reclamation post-implementation monitoring effort has played an important role in the Upper Columbia, including helping to guide development of the proposed program. Reclamation was a partner in the 2011 pilot effort. In spite of its influence, however, the Reclamation effort only covers a portion of all the projects implemented in the Upper Columbia, and the projects monitored under that effort are not reflected in the list above. The UCSRB is coordinating closely with the Reclamation to ensure that all projects are covered and that the UCSRB receives data for implementation assessment and tracking of project function.

Other Implementation Monitoring Efforts

Most of the information available about habitat projects in the Upper Columbia comes from information recorded by individual project sponsors. While many sponsors have been successful at describing their habitat projects, information has been collected on an ad hoc basis – there has been little standardization in the past of what is recorded and reported, and many important metrics are estimated, measured qualitatively, or not reported at all.

The implementation assessments and monitoring in this project will require close cooperation and coordination with project sponsors. To that end, we have worked closely with sponsors, and with funding entities during the development of the proposed project. Individual project sponsors have expressed interest in various levels of involvement in the program. As often as possible, the UCSRB

hopes to involve a representative of the project sponsor as a third member of the monitoring crew when visiting that sponsor's projects to increase the cost efficiency of the crew while providing very important adaptive management learning opportunities for project sponsors.

Project sponsors will continue to record information in Pisces and the Habitat Work Schedule (http://uc.ekosystem.us) related to project-specific reporting requirements, including project descriptions and location, budget, and planned and actual metrics.

Lower Columbia

Lower Columbia Project Implementation Monitoring

Several entities endeavor to monitor habitat project status in the Lower Columbia region, but such monitoring is very limited both in the number of sites and the information gathered. While a few entities use well developed and documented methods and protocols, there is no consistency in approach, methods, or protocols across the region. Project sponsors sometimes collect information on completed projects, but the data tend to lack scientific rigor, are not replicable, and are typically gathered in support of the project, rather than critical evaluation.

SRFB Reach-Scale Effectiveness Monitoring Program

As in the Upper Columbia, the SRFB Reach-Scale Effectiveness Monitoring Program, operated by Tetra Tech EC, conducts effectiveness monitoring for randomly selected projects in the Lower Columbia. The program provides limited data on a subset (~10%) of implemented projects in the Lower Columbia region. The LCFRB is currently working with SRFB and GSRO to ensure that data collected by Tetra Tech EC is fully utilized. The LCFRB will coordinate with Tetra Tech to obtain data from sites visited as part of the 2012 SRFB effectiveness monitoring, in order to prevent duplication.

Lower Columbia Intensively Monitored Watershed

SRFB has funded comprehensive monitoring of Mill, Abernathy, and Germany Creeks as an Intensively Monitored Watershed (IMW) since 2004. The monitoring protocols for the watershed cover a variety of physical and biological parameters, but are not intended to specifically track implementation of habitat projects. Implementation monitoring of projects implemented in the watershed will complement the results of IMW monitoring by allowing researchers to correlate reach-level habitat status and trends to the impacts of on-the-ground projects. Without this project-level monitoring in place, habitat changes may not be attributable to funded projects. The LCFRB will coordinate project implementation monitoring efforts with the IMW monitoring team to avoid any duplication of effort.

PNAMP Integrated Status and Trends Monitoring (ISTM) Pilot Project.

PNAMP Integrated Status and Trends Monitoring (ISTM) Pilot Project is developing both a biological and habitat status and trends approach of the Lower Columbia. The LCFRB participates in this project with federal agencies, Oregon and Washington state agencies, and tribes. While this project does not specifically address project implementation monitoring, there may be areas of common interest, such data definitions and protocols. The LCFRB will work to ensure consistency or compatibility in areas of shared interest.

Relation to Recovery Plans and Statewide Monitoring Approach

Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan

The *Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan* includes, as *Appendix P*, a monitoring and evaluation plan. Appendix P has gone through several stages of development, including a revision to make the appendix consistent with monitoring guidance from NOAA (Crawford and Rumsey 2009), and a review by NOAA's Recovery Implementation Science Team (RIST 2009).

Appendix P describes a list of questions that has been adopted by the UCRTT and the UCSRB as a list of Key Management Questions. Answering the Key Management Questions calls for three types of monitoring: 1) status and trend; 2) implementation; and 3) effectiveness monitoring. Appendix P describes objectives, monitoring questions, sampling design, spatial and temporal scale, measured and derived variables, measurement protocols, analysis, possible funding, and coordination needed to answer the Key Management Questions using the three types of monitoring.

Key management questions that this proposed project helps to address include:

- Have we done things to address the limiting factors associated with habitat?
- Are we planning the right things to address them?
- Are the actions identified in the recovery plan being implemented correctly and according to the implementation schedule?
- Were actions implemented according to the implementation schedule?
- What types of actions were implemented this year? (Types of actions include fish screening, fish passage, in-stream flow, in-stream structure, off-channel wetland, riparian sediment reduction, upland agriculture, upland vegetation, upland wetland, water quality improvement, land protection, and nutrient enrichment project types.)
- How many actions of each type were implemented this year?
- Did the number of actions implemented this year meet the target number identified in the implementation schedule or adaptive management plan (Appendix Q)?
- What factors prevented the target number of actions from being implemented?
- Were actions implemented correctly?
- Were the actions implemented in the proper locations?
- Were the actions implemented according to the design plans?
- What was the total area or stream length affected by the action?
- Which actions are effective and should be continued?
- Did the project type affect the environmental parameters (physical/chemical variables) that were the target of the action?

In addition to Appendix P of the Recovery Plan, salmon monitoring efforts in the Upper Columbia are guided by the *Monitoring Strategy for the Upper Columbia Basin* (Hillman 2006), which identifies needs and strategies for monitoring salmon populations, habitat, and restoration efforts across the Upper Columbia ESU and DPS. The monitoring strategy calls for implementation monitoring for all habitat projects in the Upper Columbia.

The work described in this proposal is consistent with calls for implementation monitoring in both Appendix P of the Recovery Plan and the *Monitoring Strategy for the Upper Columbia Basin*, and fills a key recommendation of the UCRTT.

Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan

The LCFRB published the Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan in 2004 and updated the plan in 2010. The Recovery Plan included a general monitoring and adaptive management framework. That framework was expanded and refined in the Research, Monitoring and Evaluation Program for Lower Columbia Salmon and Steelhead (LCFRB 2010b). The program description elaborated on key management questions and laid out six program elements:

- Biological (population) status and trend monitoring,
- Habitat status and trend monitoring,
- Implementation/compliance monitoring,
- Action effectiveness monitoring,
- Uncertainty and validation research, and
- Programmatic evaluation (adaptive management).

For each program element, the program plan identifies: A) objectives, B) indicators, C) sampling and analytical design, D) information gaps and priorities in available information, and E) implementation actions. Implementation actions identify specific projects or programs that will address the RM&E needs and priorities in this program.

The work described in this proposal is consistent with the program plan and would address an identified need. In addition, the project implementation monitoring would support the planned project tracking capabilities in SalmonPORT.

Comprehensive Monitoring Strategy

The 2002 *Washington Comprehensive Monitoring Strategy and Action Plan for Watershed Health and Salmon Recovery* (Washington Monitoring Oversight Committee) lays out a plan for monitoring of watershed health in Washington State, with a focus on salmon recovery. The strategy identifies key monitoring questions and goals, and makes recommendations intended to increase coordination of monitoring efforts within the state.

The primary focus of the Comprehensive Monitoring Strategy is monitoring of fish and habitat status and trends, and project effectiveness. The strategy defines implementation monitoring as "only a yes/no answer determining whether an action was implemented", and beyond the sample of projects that receive effectiveness monitoring does not deal with measurements of the magnitude of implementation or with the tracking of project function through time for careful stewardship of the investments made in habitat restoration. However, the strategy does recognize that the nature of implementation monitoring changes as projects are implemented and new projects are developed, and that the quality of data and program design are as important to the success of implementation monitoring as they are to environmental monitoring.

The work described in this proposal represents an evolution of the nature of implementation monitoring, as envisioned in the comprehensive strategy, beyond the definition of only a yes/no answer, to provide information that is critical to the assessment of recovery progress and long-term adaptive management of salmon recovery efforts. Coupling implementation and effectiveness monitoring metrics and data enhances the value of both programs and strengthens the capability to assess progress in achieving recovery goals.

In 2009 and 2010 the Washington Forum on Monitoring Salmon Recovery and Watershed Health developed and adopted a list of high level indicators of salmon recovery and watershed health and an associated list of methods and protocols for measuring the indicators (2010). This list of indicators and protocols did not include information related to project implementation, function, or effectiveness. The work described in this protocol will help to continue develop a standardized protocol for project implementation and function.

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Attachment A: Summary Description of the Draft 2012 Upper Columbia Protocol for Implementation Assessment and Monitoring of Long-Term Project Function

Before the beginning of the 2011 Bonneville Power Administration provided a list of quantitative metrics that they intend to track about habitat projects in their Pisces contract management system. This list was put together by a workgroup that considered candidate implementation metrics from many sources, including NOAA and Washington State's Habitat Work Schedule system. The unmodified list included metrics organized by project types, with a heavy emphasis on measures of magnitude.

An Upper Columbia implementation monitoring workgroup working together to set up the 2011 pilot revised the list of Pisces metrics just for the project types that were implemented in 2011 to include measures of 1) location, 2) description, 3) magnitude, 4) quality, 5) immediate physical effect, and 6) continued function through time for each project type. An example of the expanded metrics for the side channel project type is shown in Table 1.

Metric	Metric Type	Sample Schedule
Discharge and velocity in the channel/side channel	Effect	1, 2, 5, 10
Does the channel remain connected at target stage?	Function	1, 2, 5, 10
End latitude of treated stream reach	Location	0
End longitude of treated stream reach	Location	0
Start latitude of treated stream reach	Location	0
Start longitude of treated stream reach	Location	0
# of acres of channel/side-channel habitat reconnected or added in the freshwater non-tidal zone	Magnitude, Function	1, 2, 5, 10
# of miles of channel created in the freshwater non-tidal zone	Magnitude, Function	1, 2, 5, 10
acres of disturbed/replanted area	Magnitude, Function	1, 2, 5, 10
Gradient of the treated channel/side channel	Quality, Function	1, 2, 5, 10

Table 1: Example Metrics from the Side Channel Project Type

Starting with the revised list of metrics for the 2011 Upper Columbia projects, the implementation monitoring workgroup reviewed many protocols from major regional monitoring programs, and searched through the Web site monitoringmethods.org to identify a list of candidate methods that could be adopted or adapted to measure the necessary project attributes. In trying to match monitoring methods to specific project types, the workgroup realized that although specifics about the units involved or the objects being measured vary slightly from project type to project type, there are really only a few types of measurements involved, including:

- Delineation and recording of areas (e.g. wetlands, riparian, and impacted areas);
- Identification and recording of location of points;
- Measurement of large and small lengths (e.g. meters of stream side channel created and length of a rock structure);
- Measurement of height and depth;
- Measurement of stream flow; and
- Recording of photo points to allow for future quantitative photogrammetry.

Existing methods and portions of existing methods describing procedures for the above general methods were compiled into a candidate list along with several additional methods that the implementation monitoring workgroup identified would be required to fill metrics, including channel cross-sections. For the measurement of long-term function at protection sites, where the purpose of the protection is the maintain or improve habitat condition over time, but where there is usually otherwise no action to measure, the workgroup adapted as a starting point a number of sub-methods for assessing habitat quality from the 2010 ISEMP habitat status and trends protocol.

A three-person UCSRB crew worked tested the list of candidate methods in the field during the 2011 monitoring season, looking for ways to increase efficiency while still accurately capturing the necessary project information. Staff from the U.S. Bureau of Reclamation and from TetraTech EC were very helpful in pointing out ways that measurements could be made more efficiently or more accurately. Important in influencing the testing and working out of methods in 2011 were unusually high stream flows late into the summer, and the rise in potential importance of considerations for long-term operations and maintenance of habitat projects and the role that implementation monitoring will might play.

The monitoring design for the pilot project called for full coverage of projects implemented during the year, with revisits over the course of 10 years on a sampling schedule. The sampling schedule which comes from the original list of quantitative metrics from BPA, is different for each project type, and is intended to capture the intervals of time most likely to catch significant changes to project function. Projects in 2011 were generally visited both before and after construction so that a good baseline of what existed before construction could be captured.

In the field, the monitoring crew measures the location, size/extent, and direct physical effect of project and related features using GPS, total station, tape and compass, flow meter, and photographs. Time to complete a site varied dramatically in 2011 because the crew was testing out new methods, but the general goal was 1 day per project site for medium-sized projects. Small projects were often completed in ½ day, allowing for more than one project to be visited in a day, and a few very large projects took 2 or more days each to complete assessments.

Implementation assessments and monitoring of long-term project function measure, as physical effect metrics, the project attributes intended to result in habitat or biological response (e.g. for a riparian

planting project, is canopy cover being provided; for a rock weir intended to constrict flow by 15%, is flow being constricted), rather than ask about the results of implementation in terms of physical habitat or biological response, as is asked in effectiveness monitoring. Continued function through time is generally derived from changes in magnitude measurements or changes in measurements of direct effect at revisits over time (e.g. the planted area of a riparian planting project shrinks because of low survival or the per cent of a channel that is constricted is reduced from 15% to 5% between two site visits).

During December 2011 and January 2012 the UCSRB implementation monitoring crew and the workgroup compiled experiences from the 2011 pilot effort into a draft internal document that attempts to track lessons learned. The lessons-learned document discusses the progression of methods from what the crew started with in the field, how initial efforts turned out, what steps were taken based on initial experiences, how those turned out, and any recommendations for the draft 2012 protocol.

An outline was created in January 2012 for a new draft 2012 protocol based on the 2011 experience and the lessons-learned document. UCSRB staff are currently working to populate the 2012 protocol outline with input from project partners. Please see Table 2 at the end of this attachment for the most recent table of contacts from the draft. The document includes a section of general methodologies that describes the procedures to making the general measurements listed above. An appendix describes the mix of general methods and any variations or special procedures for each of the project types that were assessed in 2011, and includes a table with thoughts on which general methods would be used for project types that have not yet had implementation assessments.

Table 2: ToC from the 2012 Draft Protocol

Credits ..... **Error! Bookmark not defined.**

Table of Figures ..... **Error! Bookmark not defined.**

Summary ..... **Error! Bookmark not defined.**

Introduction and Background ..... **Error! Bookmark not defined.**

Implementation Monitoring ..... **Error! Bookmark not defined.**

Overview of the Upper Columbia Implementation Assessment & Monitoring**Error! Bookmark not defined.**

Development of the Protocol ..... **Error! Bookmark not defined.**

Equipment ..... **Error! Bookmark not defined.**

Total Station ..... **Error! Bookmark not defined.**

Data Collector ..... **Error! Bookmark not defined.**

Handheld Global Positioning System (GPS) ..... **Error! Bookmark not defined.**

Digital Camera ..... **Error! Bookmark not defined.**

Current Meters ..... **Error! Bookmark not defined.**

Other Equipment and Supporting Items ..... **Error! Bookmark not defined.**
Planning and Coordination ..... **Error! Bookmark not defined.**
Preparation for the Monitoring Season ..... **Error! Bookmark not defined.**
Preparation for the Field and Care of Equipment ..... **Error! Bookmark not defined.**
Preparation for the Field ..... **Error! Bookmark not defined.**
Equipment Organization, Maintenance, and Care ..... **Error! Bookmark not defined.**
General Methods ..... **Error! Bookmark not defined.**
Arriving on Site ..... **Error! Bookmark not defined.**
Pre-Monitoring Site Walk through Procedure ..... **Error! Bookmark not defined.**
Site Setup Procedure ..... **Error! Bookmark not defined.**
Establishing Location of Points, Lines, and Areas ..... **Error! Bookmark not defined.**
Total Station ..... **Error! Bookmark not defined.**
Handheld Global Positioning System (GPS) ..... **Error! Bookmark not defined.**
Establishing Control Points ..... **Error! Bookmark not defined.**
Delineation of Areas ..... **Error! Bookmark not defined.**
One Step Delineation Procedure ..... **Error! Bookmark not defined.**
Two Step Delineation Procedure ..... **Error! Bookmark not defined.**
Recording Points, Lines, Areas, and Structures ..... **Error! Bookmark not defined.**
Points ..... **Error! Bookmark not defined.**
Lines ..... **Error! Bookmark not defined.**
Areas ..... **Error! Bookmark not defined.**
Structures ..... **Error! Bookmark not defined.**
Measurements and Estimates of Length, Height, Distance, and Size ..... **Error! Bookmark not defined.**
Channel Characterization ..... **Error! Bookmark not defined.**
Channel Cross Section ..... **Error! Bookmark not defined.**
Channel Bankful ..... **Error! Bookmark not defined.**
Channel Thalweg ..... **Error! Bookmark not defined.**
Channel Bathymetry ..... **Error! Bookmark not defined.**
Flow ..... **Error! Bookmark not defined.**
Current Meter ..... **Error! Bookmark not defined.**
Habitat Condition (Lite) ..... **Error! Bookmark not defined.**
Transect Set-up ..... **Error! Bookmark not defined.**

Visual Riparian Estimates ..... **Error! Bookmark not defined.**
Human Influence ..... **Error! Bookmark not defined.**
Fish Cover ..... **Error! Bookmark not defined.**
Transect Photographic Documentation ..... **Error! Bookmark not defined.**
References: ..... **Error! Bookmark not defined.**
Equipment: ..... **Error! Bookmark not defined.**
Procedure: ..... **Error! Bookmark not defined.**
Riparian Photos ..... **Error! Bookmark not defined.**
Habitat Units ..... **Error! Bookmark not defined.**
Fine Sediment ..... **Error! Bookmark not defined.**
Embeddedness ..... **Error! Bookmark not defined.**
Stream Temperature ..... **Error! Bookmark not defined.**
Photo Monitoring ..... **Error! Bookmark not defined.**
Recording Data ..... **Error! Bookmark not defined.**
The first category is point (PT) ..... **Error! Bookmark not defined.**
The second category is Line (LN). ..... **Error! Bookmark not defined.**
The third category is Cross Section (CS) ..... **Error! Bookmark not defined.**
The forth category is Delineation (DL). ..... **Error! Bookmark not defined.**
The fifth category is Structure (ST). ..... **Error! Bookmark not defined.**
Data Management ..... **Error! Bookmark not defined.**
Cleaning Data ..... **Error! Bookmark not defined.**
Organizing Data ..... **Error! Bookmark not defined.**
Post Processing and Data Analysis ..... **Error! Bookmark not defined.**
Reporting ..... **Error! Bookmark not defined.**
Weekly Reporting ..... **Error! Bookmark not defined.**
Annual Reports/Technical Reporting ..... **Error! Bookmark not defined.**
Lessons Learned ..... **Error! Bookmark not defined.**
References ..... **Error! Bookmark not defined.**
Glossary ..... **Error! Bookmark not defined.**
Appendix A: Implementation Monitoring Metrics ..... **Error! Bookmark not defined.**
Description of Utilized Metrics ..... **Error! Bookmark not defined.**
Appendix B: Specific Applications ..... **Error! Bookmark not defined.**

Appendix C: Data Forms ..... **Error! Bookmark not defined.**
Appendix D: Notes for Use of Various UCSRB Equipment ..... **Error! Bookmark not defined.**
Total Station ..... **Error! Bookmark not defined.**
Handheld GPS ..... **Error! Bookmark not defined.**
Appendix E: Protocol Revision Log ..... **Error! Bookmark not defined.**
Appendix F: Startup Costs and Example Project Budget ..... **Error! Bookmark not defined.**
Appendix G: 2011 Lessons Learned ..... **Error! Bookmark not defined.**

COORDINATED MONITORING PROPOSAL AT THE PROJECT SCALE

March 1, 2012

Project Tasks

Develop and implement communication strategy for existing program to leverage existing data (both locally and from the current program) to highest level of use and benefit for both state and regional priorities as well as for real-time feedback into project design effectiveness; work to reconcile state and regional monitoring priorities such that additional efforts meet the needs of both programmatic and local monitoring to the extent practicable; use the addition of floodplain enhancement and instream habitat projects as a test case for reconciling monitoring priorities and collective project selection; work with state and regional entities to develop additional focus areas/topics that meet joint priorities for monitoring across Regions and programmatically.

1.0 PROJECT DECSRIPTION

This project involves several tasks that are targeted towards increasing the utilization and integration of existing data already available from effectiveness monitoring to-date, addressing identified information gaps in the programmatic monitoring through additional project identification, and increasing partnerships between regional and statewide monitoring to reconcile and coordinate priorities that are shared at both regional and state levels. Initial efforts in this project will involve the development and implementation of a communication strategy involving all of the Regions to highlight effectiveness monitoring occurring across the state and at the regional level. The focus of this communication is to "mine" the existing data for elements that are directly useful to Regions, lead entities and project sponsors in terms of providing input on project designs, performance and effectiveness for adaptive management. This process has been started for some projects in some Regions, but needs to be expanded across the Regions. Concurrently, data collected at the local level will also be explored to determine where local and programmatic data can be combined to provide even further utility in terms of reporting on the effectiveness of specific projects. This direct interaction will encourage partnerships between the programmatic and regional monitoring efforts in identifying opportunities to share data and provide outreach tools to existing and future project sponsors via events planned to occur within each region. These events could range from technical workshops, community events (e.g. Salmon Days), board meetings of the regional recovery boards, or other outreach opportunities such as the Salmon Recovery Conference.

The goal of the initial effort is to increase communication about projects within each region and the available data that have already been collected as part of monitoring efforts, and how that data can be used to assess the effectiveness of projects in addressing limiting factors. We will be asking the questions: how can we combine the available data to tell the most complete story about projects?; and how can this story help with adaptive management in terms of building better projects and tracking our progress in addressing limiting factors? As part of this effort, information will be collected at the regional and local levels about current limiting factors and measurable project objectives for currently monitored and upcoming projects. Tetra Tech staff members will present information about the results

of research and monitoring conducted as part of the state-wide Project-Scale Effectiveness Monitoring Program, and will work with regional and lead entities to determine how these data can be used to report on whether projects are addressing limiting factors at the project scale.

As an additional outcome of this communication with the Regions, information will be collected on candidate projects from each region to fill the identified gaps in the current project sample sizes for both floodplain enhancement projects and instream habitat projects. This information will be transmitted to the GSRO and RCO staff who will work with the Regions to select projects that will best address the sample size gaps identified in the current project effectiveness study. Some of this information has been collected already and projects have been identified in specific Regions as part of strategic partnerships to leverage existing data in those regions (e.g. Upper Columbia funded through BPA, Snake River in the Asotin with partnership funding from NOAA). Selection of new projects will occur through a process lead by GSRO with the participation of the Regions such that all Regions have an opportunity to identify good candidate projects within their area. Partnerships that leverage existing data, and meet both regional and statewide priorities will be explored and evaluated, but are generally considered to be preferred. This process will result in a list of additional projects to be included within the programmatic monitoring at the state level. Monitoring of these projects will be oriented toward developing partnerships and cost sharing opportunities such that regional/local data, knowledge, supported staff time, and resources can be incorporated into the program as appropriate.

The third component of this project involves an ongoing communication effort across the Regions to identify and develop monitoring approaches for priorities that are common across the Regions and that address information gaps at the state level as well. A process to identify common priorities would begin as part of the initial phase of the project, and would continue throughout the implementation phase of the monitoring of additional projects described above, using the addition of floodplain enhancement and instream habitat projects as a test case for vetting the process of developing working partnerships. In this third component, Tetra Tech staff, in partnership with GSRO staff and the Regions, would compile a list of the most pressing monitoring priorities at the regional level that are not currently being met. This list would be collated such that priorities that are in common across multiple Regions, and that also help address identified priorities at the state level, would be identified. These “thematic” priorities or focus areas would serve as the initial list to develop additional monitoring efforts. Proposals for how to develop and implement these efforts could then be developed by Regions, universities, or consortiums of technical experts, as appropriate to address the monitoring need at hand. Funding and implementation of these proposals would be at the discretion of the SRFB/GSRO.

2.0 PROJECT OBJECTIVE AND ANTICIPATED DELIVERABLES

The goals of this project are to optimize the use of existing monitoring information through regional and state partnerships, to address identified data gaps for two project categories based on the five-year performance review of the Project-Scale Effectiveness Monitoring Program conducted in 2009, and to identify additional focus areas that provide support to both regional and statewide monitoring needs.

The findings of the 2009 review included the following conclusions for each of the monitoring categories for which analyses were performed: data collected at fish passage projects showed consistent improvements in fish passage for adults and juveniles above barriers; instream structure projects currently included in the program include a wide range of project objectives and construction approaches resulting in the need to expand the category such that it can be stratified by objective and/or approach; adjustments the timing and frequency of data collected at riparian and livestock projects should be made to allow time for vegetation conditions to change substantially at restoration sites; monitoring in floodplain enhancement projects should be expanded to include additional approaches such as topographic survey and remote sensing (e.g. LiDAR, bathymetry) in order to more effectively evaluate and quantify the results of projects in the floodplain, outside of the active channel; habitat protection project evaluations should be linked to remote sensing approaches (such as analysis using NAIP imagery) such that the relative contribution of protected parcels within a sub-basin or watershed can be evaluated.

Objectives of this project include increasing the communication and data sharing opportunities with and across regional organizations and lead entities in salmon recovery. Specifically, sub-objectives would include outreach at existing regional events to increase the understanding of both statewide and local results from monitoring and to determine where and how these results can compliment each other. Objectives also include addressing the needs for additional project monitoring that were identified in the five year review completed in 2009 of the existing project effectiveness monitoring program.

Through the five-year review process, both floodplain enhancement projects and instream structure projects were identified as needing a larger sample size for monitoring in order to adequately assess the effectiveness of the projects as a category, and account for the investment of funding targeted at these restoration efforts. Specific objectives include adding up to ten additional projects to the current portfolio of projects in floodplain enhancement and instream structures.

For the floodplain enhancement category, projects are often constructed both inside and outside of the channel, or involve reconnecting natural processes in floodplains. As part of these projects, landscape-level changes occur and should be monitored for effectiveness. In addition, these projects are often larger in scale (miles vs. meters) and the cost associated with implementing this type of project is often higher than the average project cost. The potential for success of these projects is generally high, but additional monitoring is needed to assess the relative effect of different approaches to floodplain enhancement. Additionally, dissemination of this information to the restoration community at large (across all entities) is critical to ensure that those entities implementing these projects can benefit from improvements in design that may become realized in other areas. A compatible, standardized monitoring approach across all projects would allow the data to be combined with existing data from the existing Project Scale Effectiveness Monitoring Program in Washington State and with the Upper Columbia Project-Scale Effectiveness Monitoring Program, which is currently using the same protocols and data collection approach as the Washington State Program.

This same standardized data collection approach is included under this proposal at four projects in the Snake River Region within the Asotin watershed. This proposal would include project effectiveness

monitoring at four floodplain enhancement project reaches within the Asotin basin, two on the South Fork of the Asotin and two on Charley Creek. The project sites would be sampled using the same approaches as are used in the current SRFB Project Scale Effectiveness Monitoring Program and the UCSRB program allowing the data to be combined and rolled up. Existing data sets in the Asotin can also be used to increase the utility of the project effectiveness data in terms of informing progress at a watershed scale toward improving limiting factors and progress toward steelhead recovery. Data are already being collected in the Asotin for the Asotin IMW, CHaMP, and the WSDOE status and trends program. In addition, fish monitoring in the Asotin to-date includes pit tagging of 12,000 fish in the tributaries and 15,000 fish at the mouth of the Asotin. There is also an adult weir at the mouth where returning adult steelhead are tagged, and arrays at the mouths of each of three tributaries that are used to track movement of both adults and juveniles. Furthermore, spawning surveys are conducted in the Asotin, with a data set that extends back to the 1980s.

Four projects in this watershed have been identified that will allow leveraging of the significant investment in monitoring to date, and that will contribute significantly to the statewide monitoring need to increase the sample size for floodplain projects. These projects are included as part of the initial ten projects under this proposal. Monitoring for these projects is supported in part through an existing partnership in the Asotin with NOAA, and additional funding under this proposal will be used to supplement that existing investment. An existing contractor in the Asotin would serve as a partner in the implementation of the project scale monitoring in that watershed. These data would be collected using the CHaMP topographic survey protocols, which are the same as the SRFB protocols for this category, and in addition work would include data collection for metrics that are also part of the SRFB statewide monitoring protocols for floodplain enhancement and instream habitat projects, as appropriate. These data would be collected by a Tetra Tech staff member during the same field visit, and would supplement the CHaMP data to provide necessary metrics for both programs.

This work represents a concrete example of coordinated efforts between the state programmatic monitoring approach and local and regional monitoring priorities. This project also allows for a complete integration of validation monitoring (i.e. an intensively monitored watershed), programmatic effectiveness monitoring and standardized status and trends monitoring programs, completing the integration goals for monitoring types that were laid out in the Comprehensive Monitoring Strategy. In addition, this program would include fish in, fish out and implementation monitoring, conducted by entities already working in the watershed. The combination of all of these monitoring types in one area will provide one of the few examples of coordination across all of the major programs identified in the Comprehensive Monitoring Strategy.

For this study, additional specifically selected (i.e., not randomly selected) project sites would be added to the current pool of effectiveness monitoring projects and floodplain topography information would be collected by surveying and/or by leveraging existing data such as LIDAR, bathymetry, or pre-construction surveys. Data on fish use at project sites will also be collected to link changes in habitat to changes in fish response.

For instream structure projects, the five-year review in 2009 showed that a wide variety of project approaches and project objectives, as well as observed differences in target fish species, has resulted in inconclusive results with the current sample size. Other researchers (Roni et al. 2005) have found that a sample size of 30 projects in generally sufficient to detect effects in habitat and fish response from wood structures placed in streams, although this research did not review projects over the entire state of Washington. Similarly, however, a power analysis conducted using the data collected in the current Project-Scale Effectiveness Monitoring Program shows that a sample size of 30 projects would likely result in detection of significant trends in several variables indicating effectiveness of instream habitat projects. By including additional projects, the sample set could be subdivided by objective, construction approach, and target species to yield more clear results. This approach would allow for a clearer signal to be detected and for additional research to be conducted for specific species (e.g. Chinook salmon) for which there are still questions regarding the species' response to instream structures. Additionally, as for floodplain enhancement projects, these data will be disseminated across the Regions and entities to better inform the development of instream structure projects based on lessons learned from monitoring. Monitoring these projects would be conducted using standardized, compatible protocols that would allow leveraging of the existing investments that have been made in project-scale monitoring by both the State of Washington, through the existing Project-Scale Monitoring Program, and the Upper Columbia Salmon Recovery Board, through the UCSRB Project-Scale Effectiveness Monitoring Program.

Selection of new projects will occur through a process lead by GSRO with the participation of the Regions such that all Regions have an opportunity to identify good candidate projects within their area. Partnerships that leverage existing data, and meet both regional and statewide priorities, will be explored and evaluated, but are generally considered to be preferred.

Deliverables

Deliverables from implementation of the communication strategy would include participation by Tetra Tech staff and GSRO staff in regional outreach events that would help to facilitate communication about and development of partnerships across Regions and between regional and state priorities. Increasing the familiarity between programmatic monitoring and regional monitoring staff and efforts will foster the identification of opportunities where both regional and state objectives for monitoring can be efficiently achieved.

Deliverables from the effort to address monitoring gaps in floodplain enhancement and instream habitat projects will include summary findings and analysis posted to the Habitat Work Schedule Effectiveness Monitoring website. These reports will illustrate the results of monitoring, outreach opportunities, and communication tools (e.g. presentations/workshop) to disseminate the findings among practitioners specifically interested in each project category and to help increase communication of results and improved technologies being used in restoration across the State.

Deliverables from the third project component to develop additional focus areas for monitoring that serve to unite the priorities of statewide and regional monitoring entities would be the collected list of

coordinated priorities and a framework to request and select monitoring proposals based on scientific merit and standardized scoring critera.

High-level Indicators and Research Questions

The Washington Forum on Monitoring Salmon Recovery and Watershed Health developed and adopted high-level indicators designed to track salmon recovery and watershed health through time. These indicators were also associated with metrics and protocols, including methods for measuring those metrics, in order to create "greater uniformity in data collected and to make it easier for data to be shared between organizations" (Forum 2010, p.1). The high-level indicators that are directly addressed by this project proposal are those for In-stream Habitat and, to a smaller extent, Riparian Condition. All of the attributes and metrics recommended by the Forum for these high level indicators will be collected using the same approaches identified by the forum, except for those for percent fine sediment, D_{50}, and percent undercut banks. All of the Riparian Condition high-level indicators will be collected under the floodplain enhancement category, but are not currently collected under the instream habitat category.

The funding priorities established by NOAA for PCSRF funding through FY 2012 include effectiveness monitoring of habitat restoration projects at larger scales. This project, although collecting data at the project-scale for effectiveness monitoring, is specifically designed to analyze and report results at the statewide scale for categories of projects implemented across the state. The geographic extent and size of the project, combined with the use of standard protocols and data analysis procedures, allows data to be rolled up at a watershed, regional, and even statewide scale such that analyses at multiple scales are possible. The ability to use these data to answer research questions at a variety of scales increases the value of this programmatic approach, especially when it is also designed to meet specific needs at the local or regional scales, such as is currently occurring in the Upper Columbia and King County areas, and is proposed in the Asotin watershed.

Need for and Use of Data

Data collected under this effort would be used by those who are funding and building projects – e.g. SRFB, GSRO staff, Grant Managers, SRFB Review Panel, project sponsors, lead entities, regional salmon recovery organizations, and the general public. Other local groups such as the NRCS might use the data to support floodplain easement opportunities to gain additional information about the dynamics of reclaiming floodplains. These data are already being used as a direct feedback loop by engineers who are building projects to assess which components of their projects are achieving the desired habitat and biological responses. NOAA Fisheries has identified this approach to programmatic monitoring as a cost effective model to address the need for accountability of expenditures under the Pacific Coast Salmon Recovery Fund.

Information sharing on the effectiveness of floodplain enhancement projects has been identified by NWFSC staff as a need in terms of the development of a standardized protocol. Further development of a body of knowledge on the effective restoration of floodplains could also be used by the US Army Corps of Engineers with respect to the planting of vegetation on dikes and levees. At the county level, there is an intense need and use of these data and an existing partnership has been developed with King County

that takes advantage of six floodplain enhancement projects that are already part of the existing statewide data set. Extensive data coordination and sharing took place in 2011 between the Tetra Tech monitoring program and King County's Water and Land Resources Division staff. Cost sharing allowed detailed topographic, bathymetric and LiDAR data to be collected and analyzed at six sites across the county. These results were used both by the County's monitoring staff and as part of the state –wide data analysis. Similar partnerships were also realized in the Upper Columbia Region where a project-scale effectiveness monitoring partnership and cost share is successfully occurring. This program represents a living example of coordination of regional and statewide priorities that are benefiting both entities. The UCSRB is leveraging the existing state investment in project-scale monitoring and combining their own sample set of floodplain enhancement and instream structure projects with the existing state data set. Similarly, in the Asotin watershed, existing partnerships can be leveraged to gain benefit from validation and status and trends monitoring taking place in that basin, as well as the use of existing data sources such as LiDAR, that are available for all four project sites. As with the USCSRB program, the work in the Asotin represents another example of working across regional and statewide goals to achieve shared benefits. Because these data were and will be collected using the same protocols and data analysis procedures as the state-wide program, they can be rolled up seamlessly, producing a more robust analysis with greater statistical power at reduced costs to all involved entities.

Availability of Data Across Entities

Deliverables from this effort will include summary findings and analysis posted to the Habitat Work Schedule Effectiveness Monitoring website illustrating the results of monitoring, outreach opportunities and communication tools (e.g. presentations/workshop) to disseminate the findings among practitioners specifically interested in each project category and to help increase communication of results and improved technologies being used in restoration across the State. Additional communication tools include written products such as the Large Woody Debris Catalogue. This draft product – currently under development – will serve as a tool to communicate to instream habitat practitioners some of the technical details regarding implementation of instream habitat projects (e.g. cost, design approach, sizes and types of wood, placement strategies and direct measures of specific habitat and biological outcomes from several projects). This draft product would serve as a discussion piece about how to make monitoring results more directly useable by those who are building projects

3.0 PROJECT IMPLEMENTER(S)

Rationale for Implementation Team Selection

Partnerships would be developed based on the project selection process according to availability of data and the regional and statewide needs for monitoring. Examples of partnerships include data sharing, collective monitoring approaches, communication workshops on technical topics, outreach events to communicate information about benefits and results of effectiveness monitoring, identification of the local needs, and further investigation into how programmatic results can be tailored to meet the local needs. Additional efforts could include investigations into what data are available at that local level that

could help enhance the existing programmatic data to help meet the local needs (e.g. data sharing with King County, potential for data or staff support sharing in Hood Canal).

4.0 RELATION TO OTHER/EXISTING MONITORING EFFORTS

Avoidance of Duplication

Rather than duplicate monitoring efforts, this approach is designed to leverage existing monitoring efforts and optimize the use of data that have already been collected across the states and the Regions. By mining the existing data sets, work that has already been paid for can be integrated into a larger scale effort and cost savings will be achieved. In addition, partnerships with multiple data users avoid duplication of administrative functions such as data storage and equipment costs.

Complement or Support Work by Other Entities

This work is designed specifically to compliment work being accomplished by other entities. Tetra Tech staff members coordinate their monitoring practices with the larger status and trends monitoring programs in the state of Washington, and in the Columbia Basin. We are also working to coordinate with the newly formed Puget Sound Ecosystem Monitoring Program (PSEMP) to ensure that there is not duplication of efforts across these state and regional programs. Funding partnerships with the Oregon Watershed Enhancement Board and the Upper Columbia Salmon Recovery Board (funded through BPA) have resulted in complementary enhancements to the existing program through costs shares with other agencies.

5.0 RELATION TO RECOVERY PLAN/S AND STATEWIDE MONITORING APPROACH

Addresses Gap or Baseline Need From the Comprehensive Monitoring Strategy

This project addresses one of the key needs identified in the Comprehensive Monitoring Strategy – to provide a programmatic, standardized approach to project scale effectiveness monitoring that can be rolled up at the statewide scale to evaluate the effectiveness of categories of restoration projects funded through the SRFB. This need continues to be met through the implementation of this program, and enhancing the program through the coordination with regional needs would add to the utility and contribution of the program. Integration of this project with the other elements of the Strategy (including status and trends monitoring and Intensively Monitored Watersheds) in areas such as the Lower Columbia Region, the Coast Region, and the Upper Columbia Region would further achieve the original goals outlined in the original document. That type of integration would allow for the full suite of functions across the monitoring types to be realized.

Consistent with the Monitoring Forum's Framework, High-Level Indicators, and Protocols

As identified above, this project is consistent with the monitoring framework adopted by the Governor's Forum on Monitoring in 2010 and includes specifically recommended protocols and metrics from that framework.

Costs:

COST ESTIMATE SUMMARY *(each cost estimate based on costs for one year)*

Task	Annual Estimated Cost
1. Develop and implement communication strategy to increase coordination and data sharing between existing regional monitoring efforts and statewide project effectiveness monitoring	$35,000*
2. Address identified gap in existing project scale monitoring by adding up to 10 projects from across the Regions to the existing sample sizes for floodplain enhancement and instream habitat	$150,000*
3. Asotin project-scale monitoring	$100,000
4. Reconciling statewide/regional monitoring questions with local-scale effectiveness questions through the development of additional monitoring focus areas and a framework for addressing those needs.	$20,000
Subtotal of Proposed Monitoring Projects	$310,000

*These cost estimates represent a "worst case scenario" where no additional outside funding is available through partnerships. It is likely that costs could/would be reduced if partnerships for cost sharing are developed.

Reporting Regional Progress towards Summer Chum Salmon Habitat Recovery
by
Reinforcing and Rolling Up Existing Implementation and Post-Implementation Monitoring

Project Background, Problem, Description of Work, Tasks, Budget, and Deliverables

Background - Summer chum salmon were listed as threatened under the federal Endangered Species Act in 1999, and a Recovery Plan (HCCC, 2007) for the species was adopted by local, state, tribal, and federal governments more recently. To address habitat limiting factors, multiple funding agencies and partners have or will have completed over 250 habitat protection and restoration projects in the freshwater and marine environments of Hood Canal and the Eastern Strait of Juan de Fuca by the end of 2012. The Hood Canal Coordinating Council (HCCC), as the regional recovery organization for summer chum salmon recovery, has cataloged these completed and active projects into the Habitat Work Schedule as a tool for monitoring the extent and pace of implementation of the Recovery Plan. This database will also form the basis of the progress reporting metric documented in the State of Salmon in Watersheds Report.

Implementation monitoring (IM) is a critical component of progress reporting, but also is essential for performance management, adaptive management, out-year planning of projects, fundraising and stewardship. It is far more than answering the yes or no question of whether the project was implemented as designed. We must understand what was built (or conserved) as well as confirm that the project is functioning as hypothesized so that we successfully report accurate outcomes and adjust future projects to continue a recovery trajectory towards our stated goals.

Problem - However, the HCCC recently completed an implementation report in June, 2011, which came to the conclusion that only 75% of the projects in the database reported habitat outcomes at all, and thus significantly under-reported progress made to date. The report also concluded that there were a variety of inconsistencies and even inaccuracies in the data that further limited our confidence in reporting outcomes. The report questioned the value of reporting solely on what we have done (i.e. # of projects or # of LWD added) and instead recommended focusing on progress we have made, and still need to make, compared to our goals. Finally, HCCC believes the more we are able to report on functional outcomes in addition to magnitude of outcomes, the better our adaptive management process will be.

Description of Work - To address the problem, the HCCC proposes a series of policy refinements and a coordinated, statewide, pilot application of IM in partnership with the Upper Columbia and Lower Columbia regional organizations that can serve as a model to forward progress reporting across Washington State in 2013.

The policy refinements could include:

- Recognizing IM is more than a yes or no question, and that it is inherently linked to progress reporting and functional assessment.
- Continue to reform existing SRFB project policies for IM in part by requiring standardized pre- and post-construction surveys for the most critical activity types of marine, in-stream, and riparian projects (from HCCC perspective). Examples should include topography, bathymetry, wetland, wood, and/or vegetation surveys. These expenses are currently reimbursable through

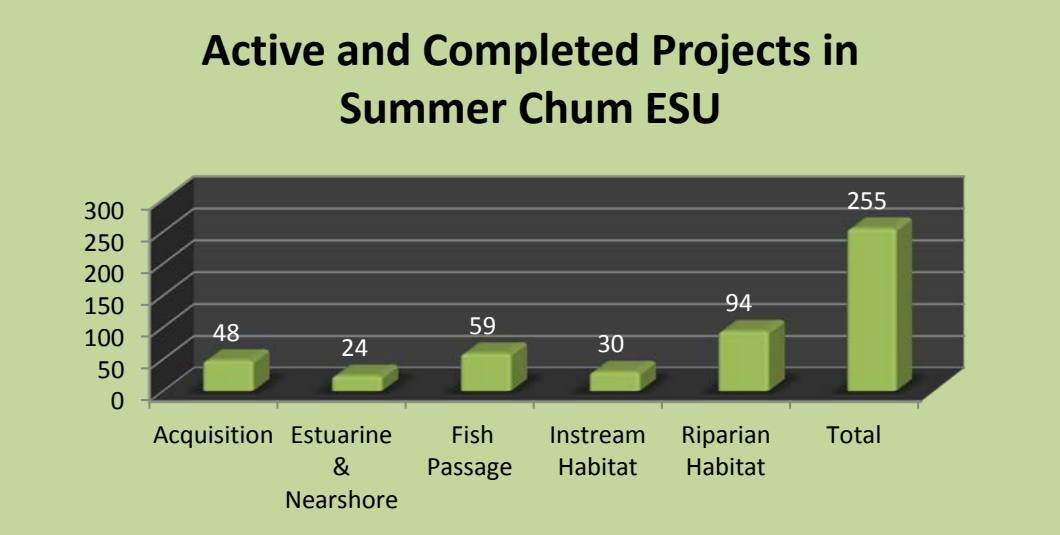
SRFB contracts though there is limited guidance for how they should be implemented or documented. The policy should require: methodologies that essentially mirror the "first-stages" of effectiveness monitoring methods already established; survey and metric data to be standardized and submitted into PRISM and the regionally-appropriate databases; and reviewed in the field by the sponsor, RCO grant manager and regional monitoring manager pre- and post-construction.

- Further reform (where needed) to enable maintenance of projects beyond their contractual lifespan.

These policy refinements would create the appropriate environment for new projects to be tracked through implementation and into their establishment phase in a coordinated fashion, with some adaptive management as necessary. This will reduce the costs of funding future IM and effectiveness monitoring efforts, and expand the available sample size. However, completed and active projects previously funded will need a different approach.

To address those gaps, *the HCCC proposes to leverage our existing regional capacity funding to meet the following objectives: fine tune and conduct a rapid IM and post-IM approach for completed projects in the summer chum salmon ESU that will improve and validate the magnitude and function metrics tracked in HWS, connect these to our goals, and complete another round of regional progress reporting*. The success of this proposal does not hinge on the policy refinements above, though our IM effort would be more sustainable over time if they were addressed soon.

The following figure shows the number of projects by activity type, as documented in HWS, which would be eligible for this review. Of the 255 projects, we believe our efforts should initially focus on the 24 marine, 30 in-stream, and 94 riparian projects, and as time allows, follow through with acquisition and fish passage. These numbers do not include 1 of the 8 watersheds with an extant population, though it would also be addressed by the effort and would increase our sample size minimally. 148 projects is a large number, and though many of them are co-located, we may not be able to get to each of them in one sampling season. If that is the case, we will consult with GSRO on priorities as we progress.



Specific Tasks – The following specific tasks should be undertaken to meet the objectives/deliverables:

1. Compile existing IM and post-IM metrics and methods from PCSRF, HCCC, and Upper Columbia Implementation Assessment pilot. Refine pilot approach and provide review opportunities to GSRO and all salmon recovery regions, particularly Puget Sound.
2. Develop a 4 month work plan for field reviews, confirming sponsor involvement and landowner consent.
3. Conduct field reviews.
4. Document and assure quality of field data.
5. Update HWS metrics where needed.
6. Complete goal development for at least one of the activity types listed above using existing HCCC strategic planning framework (Integrated Watershed Management Plan) and summer chum life history modeling (EDT) currently under contract with GSRO/RCO.
7. Ensure updated metrics roll up in HWS with watershed goal(s) developed above.
8. Produce a progress report and provide information to GSRO and State of the Salmon.
9. Incorporate any metrics or methods updates into pilot approach and publish a draft for review.

Budget – We anticipate the following costs. The total cost of the project would be $152,500. We are requesting $72,000 in funding, which will be "matched" by $80,500 in HCCC funds.

Item	Match	Request	Total Cost
Monitoring Manager (0.5 FTE)	$52,000		$52,000
Field Crew (0.5 FTE X 2)		$52,000	$52,000
Strategic consultant support for methods development and documentation		$20,000	$20,000
Habitat Director	$17,500		$17,500
Supplies and Equipment	$6,000		$6,000
Vehicle and Travel	$5,000		$5,000
Total	$80,500	$72,000	$152,500

Anticipated Deliverables

1. A draft of IM metrics and methods for Hood Canal.
2. Field review of and data forms for all completed projects for at least three activity types of marine, in-stream, and riparian projects.
3. Validated and updated HWS metrics of all completed projects for at least three activity types of marine, in-stream, and riparian projects.
4. A reliable metric and progress report for the upcoming State of the Salmon Reports for at least one activity type, but possibly all 3 depending on timing.
5. Publish a final draft IM and post-IM protocol that is consistent with existing statewide guidance, the pilot program being developed in the Upper and Lower Columbia regions, and Puget Sound regional intentions.

GSRO Questions

a. Does the project address/support a high-level indicator or question or high-priority research question? Yes
b. Who needs and would use the resulting data/deliverables. See above.
c. Would the data and/or analyses be readily available for all entities? Yes

Project implementer

d. Is this the right entity to perform the monitoring activity? The HCCC believes the answer is yes.

Relation to other/existing monitoring efforts

e. Does the project avoid duplicating work being done by another entity? As described above, this proposal goes to great lengths not to duplicate existing efforts but to reinforce them and roll them up for this major undertaking.
f. Does the project complement/support work being done by another entity? The HCCC would hope this project would be implemented collaboratively with other regions, and will put all available resources into that aspiration. Further, as described above, this project complements multiple ongoing efforts at both the project level (local monitoring efforts) and program scales (reach-scale effectiveness monitoring).

Relation to recovery plan/s and statewide monitoring approach

g. Does the project fill a data/guidance/support/methods gap or baseline identified in the Comprehensive Monitoring Strategy? The CMS was pre-recovery planning and did not anticipate the need for accurate and comprehensive progress reporting. That said, this proposal does suggest policy changes in a transparent manner while building on established policies such as utilizing consistent methodologies.
h. Is the project consistent with the Monitoring Forum's monitoring framework and its adopted high-level indicators and protocol? Yes, as described above. Progress of implementing recovery actions is a dial in the State of the Salmon Report and high level indicators.

Estuarine and Nearshore Categorization and Assessment Proposal

Project Background and Description

Problem

Currently, there is no agreed-upon methodology for measuring the actual amount of estuarine habitat that has been restored. (Even the term "restored' is prone to ambiguities). Difficulties include non-standardized base maps, lack of agreement on historical or baseline estuarine extent, lack of agreement on the start date for reporting restoration efforts, lack of agreement on how and when to measure "completed" restoration, uncertainty of what is meant by "quality acres," lack of standardization around the upstream and downstream boundaries of estuarine lands, virtually no monitoring or tracking of additional or ongoing estuarine loss, lack of a standardized reporting format or database, among other inequities of resource tracking.

In addition, the lack of a programmatic approach to monitoring in order to allow for consistent tracking of habitat conditions across the region has stymied the process of state-wide implementation. To clearly understand whether or not we are meeting the goals of our salmon recovery plans, and whether or not we are meeting the overall restoration goals for Washington's estuarine habitat, we first need to clarify and standardize the most basic reporting metrics for estuarine restoration.

Project Description

This project is part of a multi-step process that will attempt to develop a consistent Washington state-wide process for tracking and evaluating river estuary restorations. It will include integration of multiple existing efforts: Puget Sound Near shore Ecosystem Restoration Project' (PSNERP) Change Analysis and Strategies, the Estuary and Salmon Restoration Program's (ESRP) River Delta Adaptive Management Strategy, Lower Columbia River Estuary Partnership (LCREP), and Washington coast. The Puget Sound Partnership (PSP) has identified estuarine tracking as a critical component for their State of the Sound report. Similarly, the Governor's Salmon Recovery Office (GSRO) has a parallel need for the State of the Salmon in Watersheds report. Both PSP and GSRO are compiling data for 2012 reporting.

This project will include an interchange of information, comparison of data and possible identification of metrics for tracking restoration in estuarine communities of Puget Sound, lower Columbia River and the Coast. While the functions and processes of these three regions have fundamental differences, a possibility exists to identify common high-level indicators of status and trends, productivity and opportunity, as well as spatial and temporal changes. Existing data sets will be analyzed and compared if possible. The analysis will include identification of common metrics across existing estuary monitoring programs. These common metrics could then be compared to determine how similar the protocols are in terms of output produced, provide a basis for translating one set of data to another, and support best professional judgment (BPJ) calls of landscape classification and categorization.

Project Objective and Anticipated Deliverables

1. **Determine methods for standardizing and tracking status and change** in Puget Sound, the Lower Columbia and Washington Coast regions. A key focus of this effort will be how to best measure changes upon landscape(s) functions within a measurable estuarine-influenced footprint. Development of this information will be useful in developing the 2012 State of the Salmon in Watersheds report for the GSRO, and the State of the Sound for the Puget Sound Partnership

   Such standardization could be collected and presented within a matrix similar to the table at the end of this document that identifies a series of estuarine landscape habitat conditions ranging from relatively intact and undisturbed, through lost and/or converted, habitat remaining, in-restoration, at risk, restored and "other". The initial product is a table that "crosswalks" status of habitat (i.e. historic, lost, surviving, in restoration, restored) with different estuarine wetland classes (based on Simenstad et al. 2011: The habitat landscape itself would range from low euryhaline un-vegetated (mudflat), estuarine mixing (salt marsh), oligohaline (scrub-shrub transitional), tidal freshwater and subsequently upland. An upland edge of 200 meters would also be identified as a nominal buffer. The table would have areas entered in common units to be used for tracking purposes and address identified targets and the relative success of achieving such targets.

2. **Continue to develop the process for evaluating estuarine restoration effectiveness.** Consider the best existing and cost effective method(s) for characterizing effectiveness of estuarine restoration:
   a. Consider structure and processes
   b. Connect effect to ecosystem function, goods, and services
   c. Differentiate among different ecosystem states
   d. Evaluate existing estuary monitoring programs to determine appropriate and feasible metrics for documenting effectiveness of restoration
   e. Define protocols for tracking restoration using these performance metrics.

3. **Define and prioritize important knowledge gaps that prevent accurate or precise evaluation of effectiveness**. Evaluate the use of restoration actions as methods for closing knowledge gaps.

4. **Long Term: Identify standard metrics, indicators and protocols for consistency in reporting** progress in estuarine and near shore habitat restoration. Gather and identify existing metrics, indicators, and monitoring protocols for the geographic areas of focus. This effort will result in a compendium of metrics, indicators, and protocols, and a report summarizing what can be standardized, what can't be standardized and why not, what the next steps are toward standardization, and how much it would cost. *This objective is separate, but related to and dependent on the accomplishment of the first three objectives.*

Project Implementers

The implementation team for this project could / would involve staff from Tetra Tech Inc., WDFW, OWEB, ESRP, PSP, LCREP/UW and GSRO staff, as well as local and regional staff within each region. These entities have been involved in a variety of assessment, restoration, and / or classification of estuarine systems in certain locales and regions at various scales.

Relation to Other/Existing Monitoring Efforts

Complement or Support Work by Other Entities

The Puget Sound Region, the Lower Columbia River region and the Washington Coast have been able to identify the historic coastal landscape forms and structures. Certain specific protocols to address the changes temporally and spatially in estuarine and near-shore tracking mechanisms are not yet wide-spread. USGS has produced a document in cooperation with the University of Washington (UW) and the Lower Columbia River Estuary Partnership (LCREP- Open File Report 2011-1228)). This product is entitled: Columbia River Estuary Ecosystem Classification - Concept and Application. The Washington Coast Region has a draft Sustainable Salmon Plan with an extensive table of attributes and particulars. The South Slough Estuarine Reserve has implemented a significant amount of rigorous protocols and monitoring *specific* to South Slough on the Oregon coast. By compiling such information along with the robust data derived from areas such as Nisqually, Skagit, Snohomish and Skokomish restoration sites within Puget Sound, a comprehensive analytical tool is possible, helping to produce metrics quickly and accurately from existing datasets. It can also be a guide for subsequent monitoring efforts.

Relation to Recovery Plan/s and Statewide Monitoring Approach

Estuarine and near shore environments are critical areas for life history behaviors of many salmonids. There are two primary aspects of estuarine monitoring and subsequent analysis: 1) learning how systems function and thereby improving how restoration is implemented and; 2) reporting on accomplishments to policy makers (i.e. Legislature, government agencies, funders etc.) in language suitable for lay audiences.

Next Steps

1) Review scope(s) of work or inter-agency agreement for products and contracts
2) Draft products are the maps and table for each estuarine / deltaic landscape (with certain products derived from available remote sensing)
3) Schedule meetings with watershed representatives, both independent and collaborative
4) Revise the products following discussion and draft revisions
5) Develop overall assessment table of reporting state –wide (programmatic approach)
6) Provide / include opportunities for PNW coast and trans-boundary with British Columbia
7) Secure methodology and data compilation for State of the Salmon in Watersheds

Cost Estimate

Total request for proposal	$9,200*

*In-kind contributions from WDFW and $10Kof support from the Puget Sound Partnership have been identified thereby increasing the value of the is proposal by 2x plus.

Summary matrix/ table of estuarine classification / characterizations with acres / areas of landscapes defined and derived.

Historic Habitat	**Upland Edge**	**Mudflat (Euryhaline Un-vegetated)**	**Salt marsh (Estuarine Mixing)**	**Scrub Shrub (Oligohaline Transition)**	**Tidal Freshwater**
Historic Estuary – The historic extent of estuarine habitats, based on Simenstad et al. as developed by the UW River History Project.					
Lost Habitat – Estuarine area that was historically present, that is not currently functioning.					
Remaining Habitat – Estuarine area that is currently functioning. This might include more than one status, as some remaining habitat is present, but likely degraded.					
In Restoration – Areas that have been acquired for the purpose of restoration, and where some level of restoration treatment has occurred, but where we have not documented full function based on standard metrics.					
Restored – This category would be used once an area that has been put 'in restoration' is found to meet criteria that indicate a return of ecosystem services.					
At Risk – Remaining, in restoration, or restored areas where there are indicators that ecosystem services may be lost in the future due to climate change, lack of protection, or other degrading factors.					
Other					

Salmon Recovery Funding Board (SRFB) Project Proposal

An Investigative Transition from Weir to Dual frequency identification sonar (DIDSON) for Monitoring Sockeye Abundance at Lake Ozette

1. **Project Description**

The Makah Tribe, in coordination with the National Marine Fisheries Service (NMFS), Olympic National Park (ONP), and the Lake Ozette Steering Committee (LOSC), proposes to investigate the transition from traditional to technological methods of monitoring the Lake Ozette sockeye abundance. Weirs are a common, traditional method for enumerating salmon runs in Washington, British Columbia, and Alaska. For nearly three decades the Makah Tribe has used a weir to determine annual sockeye escapement estimates in the Ozette River. In accord with ONP, NMFS and LOSC, the Makah Tribe Fisheries Management proposes to additionally implement dual frequency identification sonar (DIDSON) to monitor total annual Lake Ozette sockeye salmon abundance. By deploying both methods concurrently the established trends in data collection with the weir can be analyzed with DIDSON results. To maximize consistency in data collection between weir and DIDSON methods the Makah Tribe proposes to utilize both methods for a transition period of at least two years. Following two years of data collection will be a comparison of data for both methods and trend analysis. A decision will then be made, based on the strength of correlated data, towards weir removal.

As agreed on by the Makah Tribe, ONP, NMFS and LOSC, based on new technology and the Limiting Factors Analysis, switching to a DIDSON here will aid to minimize predation events and provide continued abundance monitoring of the sockeye population. The weir is channel spanning and acts as a bottleneck to migrating sockeye salmon. The constrain in migration caused by the weir has been identified as contributing to increased exposure time to poor water quality, and predation efficiency of predators and their impacts to adult and juvenile sockeye salmon. Modifying sockeye enumeration techniques will reduce and or eliminate weir related predation impacts by river otters and harbor seals.

Although the counting weir has provided estimates of the total adult abundance entering the lake, there has been inter-annual variance in the span of operation and counting methods applied. As described in the Lake Ozette Sockeye Limiting Factors Analysis (2009) document and in the Makah Tribe's Resource Management Plan in 2000, there are many years when high May-June river flows prevent placement of the weir, and significant portions of the entering adult run are missed. Use of a DIDSON system would not require use of a full river-spanning weir to count lake entering sockeye, and this complication associated with high flows would not be a factor. Other advantages of replacing the full spanning counting weir with a DIDSON counting system would include minimizing substantially the risk of weir rejection by migrating sockeye (fish refusing to migrate past the weir; a common problem in other locations where weirs are used); migration delay; and injury of fish encountering weir pickets.

The Recovery Plan for Lake Ozette Sockeye Salmon (2009 highlights the need for modification of the weir and enumeration techniques to reduce predation effects on migrating sockeye as a high priority near term recovery action. Substituting the weir with a DIDSON in the river will provide comparable data and eliminate the predation variable.

In addition to the weir/DIDSON comparison investigation the Makah Tribe will utilize the DIDSON for sockeye beach spawning surveys in Lake Ozette. The Tribe currently uses boat surveys to count beach spawning sockeye, which is the core aggregation for recovery of the ESA-listed population. Sockeye salmon along the shoreline of Lake Ozette are visually counted to estimate the minimum number of beach spawning sockeye. However, determining the abundance and distribution of beach spawners has been problematic due to adverse viewing conditions and environmental constraints. Inconsistencies with data collection for beach spawning estimates make it difficult to assess the current status of the beach spawners. The use of combined visual and DIDSON sockeye counts will generate improved abundance assessment required under the ESA.

For Makah Tribe projects, the DIDSON will be used during the summer months (April-August) to enumerate migrating ESA Lake Ozette sockeye in the upper Ozette River. Since the Makah Tribe has nearly three decades of data from the weir, in order to better analyze trends, the weir and DIDSON will run in conjunction for the first couple of years. The DIDSON will also be used in the winter months (October-January) to enumerate the beach spawning sub-population(s) of ESA-listed Lake Ozette Sockeye. The DIDSON model that has been identified best suited for this project is the DIDSON 300.

The project proposal costs include:

ITEM	Estimated Cost
DIDSON 300	$87,000
Adjustable Pole Mount	$7,000
Toughbook -19	$3,000
Establishing power source:	$1,200
Training	$10,000
Equipment Maintenance	$1,000
Total	$109, 200
Total Requested from SRBD	**$104,200**
*Funding yet to be found	$5,000

Project Match

ITEM	Estimated Match
Makah Tribe Salary 2012	$103,314
Makah Tribe Salary 2013	$103,314
Total	**$206,618**

The Makah Tribe's expenses for the operation of the weir and beach surveys are proposed as project match. This figure does not account for the additional staff hours that will occur during implementation of the DIDISON while both monitoring methods are deployed for the first two years.

2. <u>Project Objective and Anticipated Deliverables</u>
   a. **Does the proposed project address/support a high-level indicator or question, or high-priority research question?** This project will support two research parameters. First, what are the advantages and disadvantages of switching from traditional to technological monitoring methods. This pilot study will illustrate a quantified example of the transition from weir to DIDSON monitoring methods on a Pacific Northwest River. Secondly, a high-priority research question supported by the Limiting Factors Analysis (2009) and the Lake Ozette Steering Committee is addressing concerns raised by the bottleneck effect of the weir and predation. The DIDSON implementation project and removal of the channel spanning weir would address this priority. Removal of the channel spanning weir would facilitate the reduction or elimination of predation related impacts caused by the weir.

   b. **Who needs or would use the resulting data/deliverables?** Deliverables will include a report on the investigation and comparison of weir and DIDSON data sets. The two year data set will be used by the Makah Tribe to determine if the DIDSON will be the best long term monitoring tool in the Ozette River for determining annual sockeye population. Following two years or when data permits the DIDSON will then become the method used to collect multi-year data sets used for annual Lake Ozette Sockeye population enumeration estimates. This information will also be useful to those considering alternatives to weirs for other enumeration projects. These data will then be used by NOAA/NMFS to assess listing decisions in their 5-year status reviews. Deliverables may also be used by the LOSC and other interested parties to assess the sockeye recovery priorities and objectives. A primary factor adopted by the Lake Ozette Steering Committee is addressing predation of migrating sockeye; removal of the weir is anticipated to contribute to the delisting of ESA listed sockeye.

      The project addresses NMFS's ***highest priority*** for PCSRF grant funds identified in its February 12, 2012 letter to the SRFB: " (1) Projects that address factors limiting the productivity of ESA-listed Pacific salmonids as specified in approved, interim or proposed Recovery Plans. This includes projects that are a necessary precursor to implementing priority habitat actions for ESA-listed salmonids (e.g., project planning/design)." The DIDSON project addresses identified factors limiting the recovery of Endangered Species Act (ESA) listed salmonids.

   c. **Would the data and/or analyses be readily available for all entities**? Yes, data will be available for all entities.

3. <u>Project Implementer</u>
   a. **Is this the right entity to perform the monitoring activity?** Yes, the Makah have been enumerating sockeye salmon since the 1970s; they are the right entity for project implementation. The Makah Project Biologist is the current position whose responsibilities include the weir and the beach spawning surveys. Duties of this position will transition to use of the DIDSON for data collection.

4. <u>Relation to other/existing monitoring efforts</u>
   a. **Does the project avoid duplicating work being done by any other entity?** Yes this project avoids duplication of work being done by any other entity. The Makah Tribe currently performs the monitoring tasks that the DIDSON monitoring will encompass

and then replace. There is a long term trend established with data at this site. In order to best sync data trends and analysis the weir and the DIDSON will be run concurrently for a couple of years for comparison and quality control. When a data relationship is established and fish counts are standardized, the DIDSON will solely be used. This method may also decrease the annual cost of producing the run size estimate.

b. **Does the project complement or support other monitoring or planning efforts?** Yes this project supports the progression of technology into data collection techniques for ongoing data collection and monitoring. The data collection by the weir/DIDSON does complement all Ozette basin spawning survey data that is collectively used to determine escapement estimates.

5. **Relation to recovery plan/s and statewide monitoring approach**

a. **Does the project fill a data/guidance/support/methods gap or baseline identified in the Comprehensive Monitoring Strategy?** Yes

b. **Is the project consistent with the Monitoring Forum's monitoring framework and the Forum's adopted high-level indicators and protocols?** Yes the project is consistent with the monitoring framework and the adopted high-level indicators and protocols. The Ozette sockeye salmon population is the only coastal population included in the list of targeted watersheds for population monitoring.

c. **Will the proposed activity provide data/guidance/support/methods needed for ESA de-listing?** Yes, the project will work to achieve data standards included in NOAA's "Guidance For Monitoring Recovery of Salmon and Steelhead Listed Under the Federal Endangered Species Act (Idaho, Oregon, and Washington)". The project is also consistent with NOAA's February 2012 PCSRF program priorities. The project directly fulfills priority #3, "status monitoring projects that directly contribute to population viability assessments for ESA-listed anadromous salmonids."Yes

References

Haggerty, M.J., Ritchie, A.C., Shellberg, J.G., Crewson, M.J., and Jalonen, J. 2009. Lake Ozette Sockeye Limiting Factors Analysis. Prepared for the Makah Indian Tribe and NOAA Fisheries in Cooperation with the Lake Ozette Sockeye Steering Committee, Port Angeles, WA. Available at: http://www.mhaggertyconsulting.com/Lake_Ozette_Sockeye.php

NOAA's National Marine Fisheries Service. 2009. Recovery Plan for Lake Ozette Sockeye Salmon (*Oncorhynchus nerka*). Available at: http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Puget-Sound/Lake-Ozette-Plan.cfm

Analysis of Disparate Data Sets for Compatibility

1.0 PROJECT DECSRIPTION

This project is designed to help bridge the gap between data collected through large status and trends programs and project effectiveness monitoring data that are being collected across the region through CHaMP, Washington Department of Ecology (WADOE) Status and Trends Monitoring, and the Washington Project Scale Effectiveness Monitoring Program. Using the Lower Columbia Region as one pilot, existing data sets would be used to explore the possibility of creating a crosswalk between protocols at one project site on the Lower Washougal River. This project site is within the current pool of projects for the Project Scale Effectiveness Monitoring Program and data have been collected at the site using both EMAP based protocols and CHaMP based protocols during a three-day window. These existing data sets would be analyzed to assess whether these data can be directly compared, or if there needs to be calibration across data sets in order to combine data. The analysis of the data would involve calculation of common metrics across the two data sets that are currently used as reporting metrics across monitoring programs. These common metrics could then be compared to determine how similar the protocols are in the output they produce and to provide a basis for translating one set of data to another.

As part of this effort, the River Bathymetry Toolkit (RBT), currently used as a tool to process and analyze data collected under the CHaMP Program, would be adapted to include output of metrics that are commonly used in the WADOE Status and Trends Program and the Washington Project-Scale Effectiveness Monitoring Program. This adaptation of the Toolkit would allow automated generation of metrics that would span programs, saving time and money with respect to data analysis, in addition to allowing data to be used more than once across programs. Automated generation of metrics through the tool would ensure consistent and compatible data production and could help speed up the reporting time for meaningful results from status and trends monitoring across the regions.

2.0 PROJECT OBJECTIVE AND ANTICIPATED DELIVERABLES

High-level Indicators and Research Questions

This project would help to address several of the high-level research questions that have driven the development of both the WADOE and CHaMP status and trends monitoring programs. This objective would be achieved by exploring the potential to translate data from one status and trends program to another, such that data could be compared and combined between the two programs, thereby saving funds across both programs. Additionally, data collected at the project level would be more comparable with both programs if this crosswalk were developed. This project would also help increase the efficiency of the Project Scale Effectiveness Monitoring Program in terms of automated calculation of output metrics through the RBT.

Need for and Use of Data

These data are already being collected under separately funded programs across the state of Washington and within the Columbia River Basin. Resulting data from these programs will be used by BPA, CBFWA, SRFB, GSRO, WDOE, and the regional salmon recovery organizations. This project would increase the potential uses of the already existing data in terms of allowing data sets to be shared across programs and potentially reducing the required investment by both programs.

Availability of Data Across Entities

Once the analysis has been completed, it will be summarized in a written report and made available to the entities listed above, and the general public.

3.0 PROJECT IMPLEMENTER(S)

Rationale for Implementation Team Selection

The implementation team for this project would involve staff from Tetra Tech, ESSA Technologies, WADOE, and GSRO staff, as well as local and regional staff within the Lower Columbia region. These entities have been involved in collecting the data, and have developed the RBT, and would be consulted onmetrics produced by the various programs in addition to those already produced by the RBT as part of the CHaMP program, as well as insight into the application of each program for a given region. Each role in the project would be specifically targeted by one of these entities.

4.0 RELATION TO OTHER/EXISTING MONITORING EFFORTS

Avoidance of Duplication

The intent of this project is to help reduce duplication of monitoring status and trends across the state of Washington by developing a common set of metrics that are comparable across these monitoring programs. Currently, the programs operate independently and in some cases (e.g. the Tuncannon Basin) are monitoring the same watersheds. By increasing compatibility across the programs, we would be aiming to reduce the duplication of monitoring efforts within a given area.

Complement or Support Work by Other Entities

The ability to combine data sets across status and trends monitoring programs would allow these three programs to complement each other, as well as provide a tool that would help produce metrics quickly and accurately from existing datasets. The investment to date by the CHaMP program and other agencies (e.g. USFS) in the development of the RBT has been significant, and leveraging this investment to adapt the tool such that it can be used by multiple programs would complement that existing work.

5.0 RELATION TO RECOVERY PLAN/S AND STATEWIDE MONITORING APPROACH

Addresses Gap or Baseline Need From the Comprehensive Monitoring Strategy

This project helps to address the need for statewide status and trends monitoring which was identified in the Comprehensive Monitoring Strategy (CMS) as one of the three "legs to the monitoring stool", or the three main components of monitoring for salmon recovery in Washington. This project also helps to integrate across those three main components within the Lower Columbia, which contains all three of the components: project-scale monitoring, status and trends monitoring, and intensively monitored watersheds. Integration of data across these programs is critical to realizing the full potential of the programs identified in the strategy. If baseline status and trends data can be shared across large-scale programs, the goals of the CMS will be achieved more quickly and at a lower cost.

Consistent with the Monitoring Forum's Framework, High-Level Indicators, and Protocols

The protocols identified as part of the Forum's Framework for status and trends included the WADOE protocols that are EMAP based. They also include the project-scale protocols that were implemented to collect some of the initial data that will be used as part of this pilot project. High-level indicators identified as part of the Forum's process could also be generated using the data collected and analyzed under this effort. The adaptation of the RBT such that it will auto-generate data to inform high-level indicators will save time and effort in the long-run in terms of data analysis and reporting costs.

Cost Estimate

COST ESTIMATE SUMMARY *(each cost estimate based on costs for one year)*

Task	Annual Estimated Cost
Analysis of Disparate Data- Compatibility Test in the Lower Columbia	$24,000
Subtotal of Proposed Monitoring Projects	$24,000

Oct 5, 2011

Proposed High Resolution Change Detection in Five Salmon Recovery Regions

Ken Pierce PhD and Tim Quinn PhD WDFW Chief Scientist

The High Resolution Change Detection (HRCD) Pilot project was designed to explore the feasibility of using high-resolution aerial imagery (1 m resolution National Agriculture Inventory Program data) to detect changes in land-cover from 2006 to 2009 in selected WRIAs of the Puget Sound region. Early in the project we defined land cover change as the transition from forest landcover to a human dominated landcover, i.e., developed areas. High resolution imagery is preferable to medium resolution imagery (30m Landsat pixels) for mapping change with regards to Salmon recovery because important areas such as riparian vegetation and marine shorelines cannot be accurately delineated at the resolution of 30-m pixels. However, high resolution imagery is difficult to work with in an automated manner due to the volume of information it contains (large file size per unit ground area), the effect of solar position on illumination (shadows) and high local variability of imagery within single land cover classes (e.g., forest of different age can look very different in aerial photography). With the help of relatively new software and computing power, we used a combination of supervised classification to isolate shadows and areas devoid of vegetation, image segmentation to create homogenous regions for statistical analysis, and high-efficiency methods for analyst review of sampled change locations.

As of Oct 2011 we have completed four WRIAs in the Puget Sound area with reasonably consistent results. An additional three of the 19 WRIAs in Puget Sound are being completed as part of a joint Dept. of Ecology/NOAA wetlands change grant. The relative success and positive response towards the Puget Sound project suggest exploration of this methodology in other regions of Washington State would be a useful extension. Remote Sensing in drier east side locations is often more challenging than their western counterparts (Pierce, Ohmann et al. 2009) However high resolution imaging and the kind of rapid analyst review employed in the HRCD project may help overcome some of the limitations of pure spectral analysis. The initial project funded by RCO and Salmon Recovery Salmon Board encompassed two of the seven Washington Salmon Recovery Regions both on the western side of WA State. A logical extension of this work would be to test the method in at least one WRIA in each of the other seven regions. A substantial portion of the initial grant of $115,000 was spent on method development and computing capacity. As such only four WRIAs were completed. While some method development would still be necessary for new areas, the process has been streamlined in many ways greatly increasing cost-effectiveness such that the cost for mapping a WRIA would be closer to $12-15,000. Thus performing pilots for five new WRIAs (one in each of the other five regions) would likely cost from $60-75,000. Additionally new remote sensing capacity will likely be realized when the 2011 NAIP data becomes available in early 2012. Data exists currently for all of Washington from 2006 and 2009. This data has been used in the initial pilot project and funding is currently being pursued to complete the Puget Sound region. The addition of the 2011 data will provide an additional band of sensor data not available in 2006, the infra-red band, which is crucial for assessing vegetation amount due to chlorophyll reflectance. This layer exists for the 2009 data which means change detection in the 2009-2011 period will be derived from four-bands instead of the three common to the 2006 and 2009 data. Also we will have the ability to resample the 2006-2009 change polygons in 2011 to improve our assessment of 2006-2009 change trajectories, for example did a previous change re-grow or remain in a bare/urban state.

An additional avenue for cost sharing also exists as the HRCD method is easily partitioned into separate phases, some that WDFW can provide and some that local governments or other users can provide. The partitioning as outlined below allows up to 50% of the analyst labor to be transferred from WDFW to local providers who could either receive grant funding or expand the project scope by contributing in-kind support consistent with their needs for monitoring elements of the Growth Management Act.

High-Resolution Change Detection Workflow

The workflow for high resolution change detection is partitioned into three major phases.

1. High performance computing with specialized software
    a. Image preparation
    b. Spectral vegetation and shadow modeling
    c. Image segmentation
2. Training and statistical modeling
3. Analyst prediction and sample review
    a. Review predicted changes for errors
    b. Review non-change samples to estimate omissions

The first phase requires multiple costly software packages (ArcGIS, Erdas Imagine, Trimble eCognition and eCognition server) and specialized knowledge in remote sensing and image segmentation. The second phase is a mix of manual review to categorize training data followed by statistical modeling. The third phase uses freely distributable software and local knowledge to review predictions for accuracy and non-change samples to estimate omission. The amount of work involved in terms of labor is relatively evenly split between tasks requiring expensive infrastructure and specialized knowledge and tasks involving freely available software developed by WDFW under the first grant and local knowledge. This partitioning of tasks allows for an excellent degree of collaboration and cost-sharing between WDFW and partner entities. That is, because WDFW has developed this analysis, we possess the computing capabilities needed to accomplish HRCD and can easily transfer the information and software necessary for analyst training and review to our partners. Under this sharing agreement, WDFW would perform phase one and the statistical modeling for phase two, while local partners could conduct the training data categorization and review of predictions using our distributable software and image samples.

References

Pierce, Ken 2011. Final Report on High Resolution Change Detection Project. Report to the Salmon Recovery Funding Board.

Pierce, K., J. L. Ohmann, et al. (2009). "Mapping wildland fuels and forest structure for land management: a comparison of nearest neighbor imputation and other methods." Can. J. For. Res. **39**: 1901-1916.

16 March 2012

Salmon Recovery Funding Board
Recreation and Conservation Office
P.O. Box 40917
Olympia, WA 98504

Dear Sir/Madam

I as a citizen of the State and a private property owner of the Ozette watershed wish to express my support for the grant proposal before you for consideration addressing a monitoring need in my watershed. The proposal "Dual frequency identification sonar (DIDSON) for Monitoring Sockeye Abundance at Lake Ozette", in my view meets the ranking criteria.

I'll begin by addressing the technical merit of the proposal from the aspect that I live and breathe every day in this watershed, technical merit observed and experienced by a steward of the land and waters; I'll begin this by simply answering the review questions posed and then address my level of understanding between what your ad hoc group of reviewers potentially considers a deserving high score in line with what goes on out here in the field.

Does the proposed project address/support a high-level indicator or question, or high-priority research question? At the present near term there's most likely not a better action out there that directly addresses these specifics but also a much broader recovery effort for this only ESA listed salmon on the outer Washington coast. This is the only listed stock on the outer coast of Washington, in the purest of form of being a salmon. It's reasonable to believe this factor alone is a high priority. When you add in the effort along the outer coast to address healthy stocks, through such efforts as stronghold partnerships, there's actually technical merit because of prioritization of determining what the most important stocks are. In addition from a policy perspective, if this is the only ESU listed stock competing against the dynamic of strongholds, it has been already demonstrated by lack of attention and funding, there isn't even an uphill climb available to pull this fish out from the dark corner of the state it exist in. The high-level indicator is the need to give the watershed even the opportunity to get on board; in regards to research that question is being answered with this project.

Will the proposed activity provides data/guidance/support/methods needed for ESA de-listing? **Yes** and on a scale of 1 to 10 in respect to the four points you ask about, my belief is:

- DATA: 10 (which I don't give lightly) And I get at this number because I am very confident the key to high quality data and thus a successful project is the experience and training of the operators of the project, thus those training dollars requested are a-critical just as much as the type and cost of the equipment. Looking at other DIDSON programs in Alaska, Canada, and one program that really brings light to the subject is the Nez Perce in central Idaho demonstrates very clearly to me the importance of experience and training. I compare this to the success level of the Methow DIDSON project and I believe this to be a valuable lesson learned for the Ozette effort. There have been major improvements in the software aspect that actually gives us a bump up in any learning curve in determining confidence levels over the efforts of the past, while not losing sight of the needs for the operator (or whatever job description you want to call them). We

have expertise right next door in the Elwha (dam removal project) and the Frasier system folks to the north have bent over backwards to demonstrate to this community the potential if done right.

- GUIDANCE: 7 (but there really isn't any other potential in the near term that is as solid)
- SUPPORT: 9 from the perspective of what I believe is my own community's support (not rated the highest because there is always concern over cost, but I do feel this cost is justified). And also the single factor of confidence in de-listing criteria is significantly represented by the results of this particular project, and thus contributes to support. It is still about numbers and DIDSON does get the numbers especially when there's only one water course that flows to the ocean from the ESU watershed; one point from which all the adults and juveniles cross paths in a very short distance (think about that point when thinking about predation, please).
- METHODS: and 7 (with a lot of confidence building in the past year this number will shoot up and justify methods that are both being developed without other tools available to get there and methods that haven't been envisioned (adaptive management)…with a lot of forethought in the latter. Consider "without other tools available" is best exemplified by the turbidity of this lowland/low gradient system, and not specifically just sedimentation induced turbidity but high levels of naturally induced tannins that currently impact any other effective monitoring method. This technology bridges the gap for glacial silt turbidity in areas to the north; it's that same aspect in the Ozette but with tannins and other similar sources.

Will the proposed activity provide high priority data/guidance/support/methods identified in an adopted salmon recovery plan? **Yes**, I do believe it connects with the specific and broader goals of the watershed's ESA recovery plan, and going beyond to even address the underrepresented salmonid species of this watershed that don't have an established recovery/protection plan or faced with a lot of unknowns/data gaps through attempts such as SaSI and limiting factors analysis to date. In the case of this watershed, the ESA recovery plan is relied upon to address non-listed species, and even those that may be potentially healthy stocks; a watershed that relies entirely on natural runs (except for the small scale extinction prevention hatchery that is in place for the ESA listing).

Is the project consistent with the Monitoring Forum's monitoring framework and the Forum's adopted high-level indicators and protocols? This potentially being my weakest area of confidence to answer your question outright "Yes", only because the adopted indicators and protocols for me are based on experience in only the final interpretation of what the State developed, *reading the text*, and the limited public involvement in the process to reach the protocols. Limited because of the distance and effort it took to participate in open discussion (and thus for someone like myself to be educated on what the meaning/intent really is) of the few meetings I attended when the protocols were being discussed. **My answer is therefore Yes.**

Does the project complement or support other monitoring or planning efforts? **In all aspects, Yes.** I don't know of a better project representation of this fact. A bit of supportive sarcasm… unless the country gets really rich in the near term and has loads of money to get in to a lot of novel approaches. There is so much the project can grow into and directly address other monitoring efforts, ones that will directly guide productive planning. Examples are effective

monitoring and research in upland tributaries for ESA specific and all native salmonid species and directly in to investigating deep water upwellings in the lake that facilitate ESA listed species spawning, that gets at accounting for the numbers of lake spawners that are returning but planning really can't account for this unknown potential at present. There is also the data potential on predation within the lake holdover regime for both adults and juveniles…DIDSON is clearly to me not just a counting tool but also a characterization tool for species interaction.

Does the project fill a data/guidance/support/methods gap or baseline identified in the Comprehensive Monitoring Strategy? This one I'll be upfront to say I'm pretty much guessing at what the CMS really is seeking, for many of the same reasons given in the Forum question above; however, I do sincerely believe that any current methods (even if improved upon) will not ever get to/address the ESA recovery support level that planning results that will thereby be cost effective. I believe this point is demonstrated in the recovery plan when looking at the economic evaluations. The sincerity comes from my own experience and confidence to date, based on efforts at least back to 1984. **So my answer is Yes**, at least from that aspect that it will meet the goals of the CMS as I understand them.

*Is it clear who needs and will use the resulting data***? For the most part I believe this answer is Yes.** I do believe that with the amount of cross stakeholder and agencies' interest shown over the past year in developing this proposal (and its ongoing development for other potential) the data need and use you will find results in exponential growth by a larger group; speculation on my part but driven by a growing confidence in the process. I think we have a need to improve upon how that data will get distributed, particularly, but I do believe the momentum is there to see a short term improvement in that specific area. I would actually see this point as a deliverable attributed to this particular funding effort.

Does the project avoid duplicating work being done by any other entity? **Yes**, the proposal is in direct support of the only other known current entity, and if anything the project sets a strong stage for other entities to partner directly/boots on the ground cooperatively with this single entity; that in itself is noteworthy in this watershed, at least that's my viewpoint.

Is this the right entity to perform the monitoring activity? **At this time, yes.** I see the opportunity for solidifying this answer and I'm hoping for improvement and best bang for the buck as an added bonus, but more so I also see the light that leads to efficiency of collecting data along with a priority on the quality of that data by facilitating the specialties of other entities and stakeholders to supplement and support the project and thus directly support the recovery of this species.

Will the data and/or analyses be readily available for all entities? **I do believe it will.** I've been resistive in the past regarding this area but my confidence is growing. I don't say an outright Yes, in my world it's more of "proof in the pudding", but I do have a strong feeling we're getting there.

Antidotal or aside from your questions, I want you to know my own priority interest in this project is not specifically driven by just your criteria, so I'll call it "community criteria" and ask that you have the same respect for these goals that I have for the Forum's. This project in no

uncertain terms saves fish; **it spares them the anthropogenic induced effect of predation**. There is no readily available solution to this problem if this project does not get funded. Simply said. From this aspect alone I believe the technical merit of the project is top of the list.

Please understand that it may be the case in other areas of the state to take a different approach to arriving at a solution to such similar issues, such as penniped "take" in the Columbia. We don't have those options; at least not before the fish go extinct. We are significantly challenged with variables that in their own purpose for existing are actually a limiting factor…though maybe not consider scientific based factors they are what I would call "administrative" limiting factors. With such a drive to protect the environment at all cost, the fish are now becoming that cost. In my watershed this is best demonstrated by the limitations of the Wilderness Act complicated by the reverse of the norm in establishing national parks (and thus the significant natural resource protection policies) in my watershed: A national park that is on the downstream side of state waters, wilderness designation and multiple jurisdictions at the ocean's nearshore, Olympic National Park lies between the ocean and the waters of the state. It's a flip, a reverse: The state is in the headwaters the Park and wilderness are in the outflow of those state waters. Park policies and wilderness designation thus contributes directly in limiting options because it doesn't take in to account the effect on management of the watershed that is upstream, in this case (both state managed reaches and that of Park non-wilderness designation—the lake itself). It's a struggle that goes way beyond what other regions of the state have to contend with in addressing what a pliable solution may be. I emphasis there aren't options readily available because of these two mentioned factors. This project gets us on the immediate road over that hurdle and does it in a way that brings the Park's principals and wilderness ideals partially back in line regarding predation. In the long term, legislation can address these needs, these factors. But for the purpose of the fish this project addresses the need in the short term that gives them the biggest opportunity to being successful.

I believe my opinions have technical merit and would beg of you to consider them in comparing the merits of other proposals. I believe the project meets your requirements and I also believe it meets an immediate need of the fish. I reserve for further comment as the process proceeds. Thank you for taking on the challenge of review and determining the best projects for the limited funding. And thank you for considering my opinions and observations.

Regards,

Ed Bowen
Citizen, Ozette Watershed

P.O. Box 111,
Clallam Bay, WA 98326

State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N · Olympia, WA 98501-1091 · (360) 902-2200, TTY (800) 833-6388
Main Office Location: Natural Resources Building · 1111 Washington Street SE · Olympia, WA

March 15, 2012

To: Salmon Recovery Funding Board
Recreation and Conservation Office
P.O. Box 40917
Olympia, WA 98504

Dear Sir/Madam

The Washington Department of Fish and Wildlife wishes to express our support for the grant proposal by the Makah Tribe. Their proposal "Dual frequency identification sonar (DIDSON) for Monitoring Sockeye Abundance at Lake Ozette", in our view fully meets the ranking criteria for project funding as specified below. Directed at improving scientific understanding of population status, and limiting factors for recovery, of ESA-listed Lake Ozette sockeye salmon, the project also addresses the highest priority for 2012 SRF project funding identified by NOAA Fisheries in its February 12, 2012 letter to the SRFB:

" (1) Projects that address factors limiting the productivity of ESA-listed Pacific salmonids as specified in approved, interim or proposed Recovery Plans. This includes projects that are a necessary precursor to implementing priority habitat actions for ESA-listed salmonids (e.g., project planning/design)."

- ***Does the proposed project address/support a high-level indicator or question, or high-priority research question?***

Yes. Lake Ozette Sockeye are the single stock composing the ESA-listed ESU, and the lone listed anadromous salmon population in the Washington Coastal region.

- ***Will the proposed activity provide data/guidance/support/methods needed for ESA de-listing?***

Yes. The population abundance data obtained will be more consistent and complete than data currently provided from the current method of enumerating the population as the fish leave the Ozette River and enter the lake. The DIDSON system proposed for use in the river can also be use to enumerate spawners on the beaches of the lake. Consistent and effective

methods for censusing sockeye on the spawning beaches are currently lacking, hindering assessments of the status of the core listed spawning aggregations in the watershed.

- ***Will the proposed activity provide high priority data/guidance/support/methods identified in an adopted salmon recovery plan?***

Yes. The Lake Ozette Sockeye Salmon Recovery Plan and other supporting documents identify enumeration of adult sockeye entering the lake as a critical activity needing improvement. One of those improvements is to move away from the current use of the upper Ozette River counting weir in order to reduce the potential for predation and other sources of mortality.

- ***Is the project consistent with the Monitoring Forum's monitoring framework and the Forum's adopted high-level indicators and protocols?***

Yes. Furthermore the project provides much needed benefits for Lake Ozette Sockeye which are the only ESA-listed (?) coastal stock identified in the Forum's framework. One specific benefit is to reduce the transit time of sockeye as they ascend the river, passing through the weir into the lake. The reduced transit time reduces predation opportunities from aquatic mammals, stress induced by elevated water temperature in the river, and other weir-related effects

- ***Does the project complement or support other monitoring or planning efforts?***

Yes. The application of DIDSON technology will improve quality of data collected currently and compliment the application of data collected by partners in the watershed. These data range from adult abundance of returning adults, to the number of spawners, habitat quality, juvenile abundance, etc.

- ***Does the project fill a data/guidance/support/methods gap or baseline identified in the Comprehensive Monitoring Strategy?***

Yes. Although the data are currently being collected, the use of DIDSON increases the consistency and precision of enumerating adults in comparison to the counting weir as it is currently used.

- ***Is it clear who needs and will use the resulting data?***

Yes. It is anticipated that the data would be collected by the Makah Tribe and available to partners on the Lake Ozette Sockeye Steering Committee which in addition to the Makah Tribe, includes fishery co-managers represented by WDFW and the Quileute Tribes. Other committee members include NOAA Fisheries, Olympic National Park, private landowners, and timber companies. One example of the use of this data is that of NOAA Fisheries using the information for ESA stock status reviews s and for potential de-listing decisions.

- ***Does the project avoid duplicating work being done by any other entity?***

Initiating the use of DIDSON, would in the short-term need to be purposefully duplicative with current method for enumerating adults returning to Lake Ozette. Once the use of DIDSON is established and has provided some verification relative to historic use of the counting weir duplication would not be an issue.

- ***Is this the right entity to perform the monitoring activity?***

Yes. The Makah Tribe is a fish resource co-manager with treaty-reserved fishing rights in the Lake Ozette basin. . The use of the DIDSON would occur inside the boundary of Olympic National Park, and the project is viewed as subject to the Park's research permit application process. Current assessment activities occur in similar locations within the Park. The Park has expressed a concern for anthropogenic impacts on the biota within the Park associated with the current assessment methods and therefore they support the use of methods with less impact on the behavior of sockeye and other species.

- ***Will the data and/or analyses be readily available for all entities?***

Yes. As mentioned above and as indicated in the proposal, the data will be available use by others.

In summary, the proposal has widespread support from the partner agencies, local organizations, private landowner, and individuals that constitute the Lake Ozette Sockeye Steering Committee. This work is consistent with the Lake Ozette Sockeye Recovery Plan and other documents such as the Lake Ozette Sockeye Limiting Factors Analysis, which identify the weir as a potential impediment to upstream migration leading to increased mortality prior to spawning. The use of DIDSON for purposes of enumerating the abundance of returning adult Sockeye is on the steering committee's priority project list. Its use supports the identified need for a more consistent method of enumerating the abundance of returning adults and the number that successfully spawn on beaches in the lake. These data are critical for understanding trends in abundance and is needed for the National Marine Fisheries Service to complete stock status updates for ESA-listed populations on a five year cycle.

As identified in the proposal, use of the DIDSON equipment as proposed would address issues and shortcomings that are associated with the current method of enumerating the adult return. Chief among those is the concern that the counting weir is an impediment to upstream migration which leads to increased sockeye mortality. While sources of mortality can be identified, the magnitude of the impact cannot be quantified. Transitioning away from the counting weir substantively removes one hurdle in the recovery of this ESA-listed species.

The Makah Tribe has long operated the current counting weir and conducts spawner surveys, and, their professional staff are very capable in performing these activities. There is a long standing history of cooperation and collaboration between the Makah Tribe, the National Marine Fisheries Service, the National Park Service, and the Washington Department of Fish and Wildlife. These relationships enhance the likelihood that the utilization of the DIDSON equipment for the purposes identified will be successful.

Thank you for considering the merits of this work and application to improving our collective monitoring of Lake Ozette Sockeye as we work diligently to recovery of this ESA-listed stock.

Sincerely,

Ron Warren
Region 6 Fish Program Manager
Washington Department of Fish and Wildlife

WASHINGTON STATE
RECREATION AND CONSERVATION OFFICE
Salmon Recovery
Funding Board

Item 8: Puget Sound Partnership Update will be presented at the meeting.

There are no advance materials.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **9**

Meeting Date: April 2012

Title: Update of Agency and Board Communication Plan

Prepared By: Susan Zemek, Communications Manager

Approved by the Director: Kaleen Cottingham

Summary

The Recreation and Conservation Office (RCO) has a plan that guides the communications work of staff and board members. Staff has developed a process for updating the 7-year-old plan, and is seeking input from the Salmon Recovery Funding Board (board).

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☒ Request for Direction
- ☒ Briefing

Background

In 2004, the Recreation and Conservation Office (RCO) hired its first communications director, who conducted a communications audit and drafted the agency's first communications plan. The audit included interviews with every staff member and key stakeholders, and reviews of agency publications, Web site usage statistics, and media coverage. The resulting plan had four objectives:

- Increase awareness and build support of outdoor recreation, conservation, and salmon recovery by the general public and key stakeholders;
- Position the agency as a leader in providing information on outdoor recreation and salmon recovery;
- Strengthen the identity of the agency; and
- Increase the ability of staff to be good communicators of the agency's mission and values.

In the years that followed, RCO has expanded its Web sites and increased the number of media releases distributed to build awareness of the agency. RCO has attended many trade shows and booked its leaders in speaking engagements to position the agency as a leader in outdoor recreation. The agency also has rewritten its manuals to be simpler to understand, making RCO better at communicating its mission and values.

In a 2010 survey, customers ranked RCO's communication efforts favorably. Nearly all (96 percent) found RCO's e-mails and letters easy to understand, 82 percent found the manuals easy to understand, and 87 percent reported that RCO's communication was just right in terms of frequency.

Since the first plan was written, the agency has nearly doubled in size, technology has changed, and the role of the communications director has shifted to absorb duties of retiring staff. Now is the time to update RCO's communications plan.

Strategic Plan Link

The communications plan is a key element in the board's strategic plan, supporting Goals 2 and 3. Goal 2: Be accountable for board investments by promoting public oversight, effective projects, and actions that result in the economical and efficient use of resources. Goal 3: Build understanding, acceptance, and support of salmon recovery efforts.

Specifically, the communications plan contributes to a key action in the accountability strategy to provide clear, comprehensive, and easily accessible information to the public about restoration and protection projects via electronic databases, the agency Web site, and other communication tools.

The communications plan will map out a route for building understanding, acceptance, and support of salmon recovery efforts (Goal 3), and supporting the board's community based partner organizations in their efforts to build local and regional support for salmon recovery (Support Strategy).

Proposed Plan Development

Research (February-April)

- Conduct interviews (staff, customers, review customer survey) to gauge the perception of our communications – what are we doing well, where do we need to improve.
- Hold discussions with all boards about elements they would like to see in the updated plan.
- Review social media used by other agencies to determine the value, the cost, and the techniques used.
- Assess interviews, web statistics, and media coverage to learn how well current methods are working for RCO.

Write Plan (May-June)

- Plan review with director, staff, and boards (SFRB in September)

Finalize Plan (September)

The final plan will contain:

- Goals of what we want to accomplish.
- How we will use our external and internal resources to accomplish goals.
- Outreach tasks specific to each board and agency leadership.
- Analysis of ideas raised, such as electronic newsletters and social media.
- Detailed task list with deadlines, deliverables, and performance measurements.

Request for Board Comment

To help ensure the communications plan has all the elements needed and addresses major concerns of the board, staff will ask the board for feedback on the following questions at the April meeting.

1. Are there key messages board members want to ensure the agency is delivering?
2. What should the role of board members be in public outreach? How much do board members want to do? Do board members want to give speeches, attend trade shows, write blogs, tweets, or guest editorials?
3. What communications activities should be increased or decreased?
4. What are the top one to three new communications activities board members would like the agency to accomplish?

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **10**

Meeting Date: April 2012

Title: Areas of Policy Focus for 2012

Prepared by: Megan Duffy, GSRO Executive Coordinator
Brian Abbott, Salmon Section Manager

Approved by the Director: Kaleen Cottingham

Summary

Staff presented administrative changes to Manual 18 at the December 2011 meeting of the Salmon Recovery Funding Board (board). At the same time, staff noted that regions, lead entities, sponsors, review panel members, and staff also had suggested changes to several policy issues. This memo identifies those policy issues and recommends follow-up work by staff.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☒ Request for Direction
- ☐ Briefing

Background

The Recreation and Conservation Office (RCO) routinely gathers feedback from staff and stakeholders about the policies and processes used by the Salmon Recovery Funding Board (board). The current list of policy and process changes comes from a variety of sources:

- Observations made by regions, lead entities, and project sponsors as they reviewed the administrative updates to Manual 18 for the 2012 grant round.
- Suggestions made by lead entities through their semi-annual progress reports.
- Policy issues identified by the board's Technical Review Panel during its review of projects in the 2011 grant round process.
- Requests for clarifications and updates from grant managers and other RCO staff.

Staff identified these issues at the December meeting, both in briefings and the advance materials, noting that they would present policy ideas and recommendations for direction on further work at the April 2012 meeting.

Additional Staff Work in 2012

In addition to the policy issues identified below, RCO and Governor's Salmon Recovery Office (GSRO) staff will be continuing to work on policy projects such as Manual 19 (Regional Organization and Lead Entity Guidance) and policy to address/avoid conflicts of interest. As noted in memo #5, staff also recommends that the board consider ways to explore alternative funding strategies and seek partnerships that contribute to the board's mission. If approved by the board, the work to address funding strategies would limit staff availability for other policy review projects.

Analysis

The following tables provide a list of potential policy issues for staff to address in 2012. Each raises important issues. However, staff is limited and fully obligated and thus unable to address every issue in the coming year.

Instead, staff proposes a relative priority (tiers) based on our assessment of each issue's difficulty (e.g., amount of time needed, political sensitivity, issue difficulty, stakeholder & board involvement, difficulty of implementation, dependence on other policies) and impact (frequency of recurrence, risk moderation/avoidance, greater efficiency, benefit to staff or sponsors in managing grants, anticipated external response, magnitude of demand).

- Tier One: Issues that staff must address during 2012.
- Tier Two: Issues that staff will address during 2012 as time allows.
- Tier Three: Issues to focus on at a later date; these issues are much more complicated and will take significant work to scope and resolve. The RCO does not have the capacity to address these topics in 2012.
- Tier Four: Issues that are being addressed in other forums or through other RCO processes; some RCO staff work will be required to support these efforts.

Tier 1

Category	Issue
Allowable Uses	Consider whether hatchery-related projects (like acclimation ponds) are an allowable use on board-funded properties and easements. *(Hatchery projects are not eligible for board funding.)*
Funding/costs	Consider a ceiling for administrative and engineering costs for phased projects that have a previously-funded design-only phase
Other	Communicate availability of planning grants to improve project sponsor capacity
Restoration Projects – Requirements for funding	Consider requiring previously-funded deliverables to be completed when technical review is done for the next phase of a project
	Require that preliminary or final design be completed and submitted with application for construction funding
Strategies/ Guidance	Incorporate into PRISM a specific section where applicants identify the recovery plan priority actions addressed by a proposed project.

Tier 2

Category	Issue
Grant Round Timing	Review overall timing of grant round cycle (e.g., consider funding award meeting in November) to reduce overlap between the grant cycle and construction season
	Continue efforts to streamline review process
Review Panel Site Visits	Add to review panel field visits completed and/or future projects in the area.
Project Review Criteria	Clarify eligibility of (or limits to) education and outreach elements

Tier 3

Category	Issue
Funding/costs	Allow contingency or adaptive management costs for large-scale projects
Strategies/ Guidance	Develop guidance for invasive species projects
	Develop strategies for riparian restoration work
Other	Improve project sponsor capacity by identifying additional funding opportunities
	Explore ways to support process-based restoration
	Increase consistency of emerging project types by recommending best practices
Project Review Criteria	Explore quantifiable evaluation of project cost versus benefit

Tier 4

Category	Issue
Project Review Criteria	Consider outlining in which situations *bank stabilization* is an allowable project element. *(Work to be done by Review Panel)*
	Consider outlining the key design objective that *bank stabilization* project must meet to have a project approved. *(Work to be done by Review Panel)*
	Review the criteria used by the technical review panel in considering individual proposed projects. *(Work to be done by Review Panel)*
Monitoring	Examine ways to support broader effectiveness monitoring and close the loop on learning from that investment *(Work to be done by Regions)*
	Review the option to focus on implementation monitoring as a way to provide information for future design and implementation *(Work to be done by Regions)*
	Discuss monitoring as match approach *(Work to be done by Lead Entities)*

Additional Projects and Engagement

Staff anticipates that other issues will present themselves over the course of the year, especially as the RCO and GSRO engage with lead entities and regions to review the list above. The ideas will be captured in a living policy list. Ideas may be added to the list throughout the year and pulled off when completed or no longer viable.

Staff Recommendation

Staff requests that the board either (a) give staff direction to proceed as indicated by the table above or (b) identify a different prioritization for policies to be addressed in 2012.

Next Steps

Staff will implement the direction from the board, and continue to engage with lead entities, regional organizations, and the Technical Review Panel about emerging policy and process issues. Staff will update the board on progress made through routine management reports and board memos.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
Salmon Recovery Funding Board

Salmon Recovery Funding Board Briefing Memo

Item **11**

Meeting Date: April 2012

Title: Update on Large Woody Debris and Public Safety

Prepared by: Megan Duffy, GSRO Executive Coordinator

Approved by the Director: Kaleen Cottingham

Summary

In 2009, the Salmon Recovery Funding Board (board) responded to staff research and board discussion about engineered log jams by directing staff to work with and track updates to WDFW' s Stream Habitat Restoration Guidelines (SHRG). The SHRG updates are nearly complete, and will include an appendix on public safety. The purpose of this memo is to update the board on the SHRG safety appendix.

Board Action Requested

This item will be a:

- ☐ Request for Decision
- ☐ Request for Direction
- ☒ Briefing

Background: Previous Board Discussions

In May 2008, the Salmon Recovery Funding Board (board) discussed the issue of public safety and instream structures, and directed staff to develop potential options for considering public safety as related to instream structures funded by the board.

Staff gathered information on the issues from a variety of sources, including past Washington state legislative efforts, Oregon state statutory language, and efforts by local jurisdictions in Washington (e.g., King County). Based on its research, staff identified potential options for considering public safety on board-funded projects. Options were considered in light of the board's statutory directive for funding restoration projects, potential burdens on project sponsors and their ability to implement projects, the likelihood that an option would provide public safety benefits, and the potential liability of the board as a funder of instream projects.

In August 2009, staff presented a possible approach to the board (Attachment A). The approach included recommended procedural standards (based largely on the King County Department of Natural Resources approach) and recommended design guidelines to be considered in the development of projects with large wood instream structures. After significant board discussion and public comment, the board directed staff to work with other state agencies considering public safety and instream structures (Attachment B). In particular, the board directed staff to work with the Department of Fish and Wildlife as it updated its Stream Habitat Restoration Guidelines (SHRG). These guidelines represent a compilation of "best practices" approach for instream restoration, and the board viewed the update process as an opportunity to address public safety with regard to restoration projects. The board directed staff to report back after the SHRG updates were completed, and to identify any updates related to public safety.

Current State

Stream Habitat Restoration Guidelines

The Washington State Department of Fish and Wildlife (WDFW) has nearly finalized the Stream Habitat Restoration Guidelines (SHRG) update. At the time of this memo, final editing was taking place. The SHRG provides a comprehensive list of factors and criteria to consider when planning and designing stream restoration work, including watershed assessment, characterization, project design and construction approaches.

The recent update includes a public safety appendix (Attachment D to this memo). This appendix provides guidelines for addressing public safety concerns associated with stream habitat restoration projects. It suggests that the *"guidelines can serve as an outline of a process of inquiry that can provide the due diligence required by a project lead to incorporate public safety into the design process."* It highlights the need to balance public safety concerns with habitat restoration goals, and notes that risks are situation-specific and should be evaluated relative to the user groups, stream type, project context, and project components. It further notes that uniformly-accepted statewide or local design guidance and specific design standards for addressing public safety are not currently available.

The SHRG appendix does state that as standard practice, each project should:

1. Consider public safety early and throughout habitat restoration project planning, design, construction and post-construction.
2. Engage and make reasonable efforts early and throughout project development to understand and define public safety concerns that the public and stakeholders may have throughout a project's life span.
3. Document the due diligence process for addressing public safety (document the public safety decisions/actions that were made/implemented and why.)

The language further states that the three tasks identified above should be tailored to project size and relative impacts.

The SHRG appendix provides more detailed recommendations for how to integrate public safety into the design, construction, and post-construction phases. In general, the SHRG recommends:

- Including public safety in project goals and objectives
- Involving user groups early
- Understanding usage with the project area
- Incorporating safety considerations throughout the development, design and lifetime of the project (monitoring, adaptive management and maintenance)
- Considering warning signs
- Educating users and raising awareness of user responsibilities

The guidelines also provide a list of resources to consider as a starting point for evaluating and addressing public safety risks.

Issues Raised to the Legislature in 2012

Over the course of the last two years, the issue of landowner liability for restoration projects has received significant attention. Restoration practitioners are concerned that the threat of potential liability will have a chilling effect on landowners who would otherwise be willing to install instream structures on their property. This is not only a concern as it relates to private landowners, but also with regard to public lands managed by state agencies such as the Department of Natural Resources.

In response to this concern, a bill (HB 2957) was introduced in the 2012 Washington State legislative session (Attachment C). The bill, described as "removing potential barriers to successful salmon recovery efforts" focused on providing limited liability for landowners who allow for implementation of "fish habitat improvement projects" on their land. The bill was not heard by the House Judiciary committee to which it was referred. Instead, the House Natural Resources Committee held a work session on the issue. It is uncertain whether the legislature will continue to examine this issue in more detail over the interim.

Next Steps

Manual 18 Guidance

The most recent SRFB Manual 18 was published in January 2012. In the manual, Appendix D contains the following language:

> "RCO highly recommends that project sponsors review the Stream Habitat Restoration Guidelines. An updated version of this guidance is expected to be available sometime in the first quarter of 2012. Guidelines are online at wdfw.wa.gov/conservation/habitat/planning/ahg/. The purpose of the guidelines is to promote process-based natural stream restoration.

> In developing your SRFB application, RCO highly recommends you consult Chapters 4 and 5 of the Stream Habitat Restoration Guidelines. Chapter 4 provides guidance to sponsors in developing their goals and objectives for their restoration project as well as their restoration strategy. Chapter 5 provides guidance on designing and implementing restoration techniques."

Additionally, section four of the manual, Project Proposals, includes the following in its Design and Implementation Questions for Restoration Projects:

> Have members of the community, recreational user groups, adjacent landowners, or others been contacted about this project? Describe any public safety or other concerns about the project raised from these contacts and how those concerns were or will be addressed.

Staff suggests that the next update to Manual 18 include additional language that specifically directs project proponents to review the Public Safety Appendix in the updated Stream Habitat Restoration Guidelines.

Attachments

A. Staff Recommended Approach, 2009

B. 2009 Meeting Minutes

C. Bill Language: HB 2957, Removing potential barriers to successful salmon recovery efforts

D. SHRG Public Safety Appendix

Staff Recommended Approach, August 2009

Based on staff discussion and legal review, staff is recommending the following approach, which is based upon the work of King County and its effort to address large wood placements and potential public safety issues. There are various components that could stand alone or be combined.

1. *Recommend that sponsors follow King County procedural standards*. Generally these standards are as follows. (See Attachment C for more detail.)
    - Identify projects where large wood will be installed
    - Define the primary purpose of the project and the intended function of the wood in the project
    - Develop conceptual-level design
    - Identify outreach activities appropriate for the project (e.g., activities to inform recreational water users, neighboring community, etc.)
    - Seek input on proposed design concepts and outreach activities from stakeholders
    - Consider a range of design options for large wood placement
    - Final design and permitting
    - Monitor outcome and apply adaptive management strategies

2. *Recommend that design guidelines be considered in the development of projects with large wood instream structures.*
    - These guidelines would be the relevant sections on large wood in the Washington State Stream Habitat Restoration Guidelines and/or the Washington State Integrated Streambank Protection Guidelines. (Staff does not suggest design *standards* because of the need to maintain flexibility in design and because there are not necessarily "industry" standards regarding design/engineering of ELJ/LWD projects.)

Staff recommends that this option be distributed for public comment and input so that the board can understand the perspectives of both the public and other state agencies addressing this issue[1].

[1] Other state agencies also are concerned with public safety and instream structures. Both the Departments of Natural Resources and Transportation are considering this issue from their perspectives. RCO staff has engaged in conversations with these agencies to gain further understanding of the issue. Any approach adopted by the SRFB will help to inform other agency discussions.

August 2009 Meeting Minutes Regarding Engineered Logjams

ITEM #7: ENGINEERED LOGJAMS
Megan Duffy, RCO Policy Specialist presented this agenda item.

Chair Tharinger reminded the audience that if they were interested in commenting on the issue, they should fill out a comment card.

Megan Duffy introduced herself and Sandy Kilroy from King County Department of Natural Resources and Parks (KCDNR). She explained that she would provide background and process information, Sandy would then let them know what KCDNR is doing, and then they would cover the staff recommendation.

Megan explained that the board directed staff to look at the issue of public safety and projects that involve engineered logjams (ELJs) or large woody materials (LWM) within the SRFB funding process. Megan listed the research that she and Lloyd Moody conducted to learn how the issue is addressed by other states, British Columbia, and other jurisdictions within Washington. She also noted that the Puget Sound Partnership (PSP) funded a similar report for KCDNR. Megan explained that staff identified a range of options, which the agency's assistant Attorney General (AAG) reviewed from a liability perspective. Staff considered the AAG opinion and considered the spectrum of options in light of legal advice, the purpose of the SRFB and its funding, the potential burden on sponsors, benefits of ELJ and LWD projects, and the likelihood that the option would yield public safety benefits. She stated that staff then narrowed the list to one option that she would discuss later. She then turned the presentation over to Sandy, noting that King County has done significant work on this issue.

Sandy Kilroy, KCDNR, manages the rural and regional services section for the county's water and land resources division, including all watershed protection and restoration programs. She stated that she wanted to talk about the use of wood as part of the county's capital projects on main stem rivers and address how King County has been dealing with recreational issues. Sandy noted that wood is a natural element of our river systems and is a critical element in the recovery of our listed salmonid species. She noted that the salmon recovery plans mention that woody debris is critical to functioning and productive habitat. The placement of wood as part of floodplain project has been an important project element in terms of structural and biological integrity functions.

Sandy explained that there are three main reasons they use wood:

(1) The ecological value produced by ELJ structures for projects that are solely habitat restoration;
(2) The flood hazard management program uses wood to deflect flows, slow velocity, reduce bank erosion, and protect public infrastructure; and
(3) Mitigation for the floodplain program and transportation projects where they use wood to mitigate adverse environmental impacts.

People use the rivers as well. She noted that they have both experienced and amateur boaters, kayakers, canoeists, rafters, and “recreational floaters.”

Sandy noted that KCDNR has worked closely on this issue with the King County Sheriff’s Office (KCSO) for a long time. The KCSO states that there has never been an injury or death in King County rivers associated with a placed piece of wood. There also is rarely, if ever, wood involved in injury or deaths in rivers. The lack of life jackets is the predominant cause of drowning in county rivers.

Sandy then explained the history of the issue in the county. In the 1990s, the county started involving interest groups in the design of projects. In particular, they involved a boater safety commission, which is now the River Safety Council. She explained that the county would take conceptual designs to stakeholder groups to get their input from a recreational safety standpoint. The approach worked well, but ensuring safety has become a greater consideration in the past few years. In 2007, the King County Council (KCC) passed a motion to develop procedures for the placement of large wood. In 2008, the KCDNR responded with a recommended set of protocols that included input from stakeholder groups. She noted that these protocols were referenced and included in the SRFB materials. Some citizens remained concerned that the protocols did not go far enough in addressing safety concerns or restricting the places where wood could be placed. This year, KCDNR formed another LWM advisory committee to review and possibly modify the protocols. Also this year, the KCC passed another ordinance that requires the KCDNR to adopt the protocols as a public rule with safety as a primary consideration.

Sandy explained that the protocols lay out a multi-step process in which they identify the projects that will involve placement of wood, discuss the reasons they are placing the wood (e.g., its function or significance), and then use best practices, professional engineering, and scientific expertise to design projects. She noted that consideration of public safety is an important element of the design and is evaluated in all design options. KCDNR invites stakeholder input into the process through a variety of means. They have an annual meeting at which they present all of the projects that are under design for construction, and talk about the wood placement. They invite anyone interested to work with the lead engineer or project manager on details of design to address the safety concerns for particular projects.

Sandy also noted that education and outreach are important. KCDNR places signs during and sometimes after construction. They also have information on their web site about the projects. Recently, they have started to monitor the projects to see changes over time and identify whether the safety conditions associated with a project have changed.

She showed pictures of some examples of design modifications they have made. The first was a habitat restoration project on Auburn Narrows, a side channel of the Green River. She noted that the wood was pulled back out of ordinary high water, and embedded into the bank to make it secure and stable. The second project was a bank stabilization project where they wanted to use the wood to deflect flows, reduce velocity, and reduce bank erosion. In this case, the root ends were tucked in very close to the shoreline and

overlapped with the blunt ends of the logs. The purpose is to pull it close to the shore to minimize the risk that boaters can get trapped in the wood.

David Troutt asked what time of year the pictures had been taken. Sandy replied that she thought that they were low-flow summer. The first (Auburn Narrows) showed low flows, which is during summer. The second one was during construction, which is during the fish window in August.

The next example was on the Snoqualmie River where they used pilings to secure and tether the logs back against the bank. The pilings help keep boaters back during different flows. She then showed other examples where they look to embed the wood further back in the bank and put up log booms to keep boaters from coming into direct contact with the wood.

Sandy noted that all of the projects were built two or three years before they implemented the protocols. The important element of their process to include public safety is the annual meeting to present the projects. She reiterated that they address the recreational concerns through design modification, signage, education, and outreach. Sandy noted that the education element is an important piece that is broader than a county issue, and that general river safety education is vital. She stated that everyone has documented a need for improved education and outreach, but that they haven't figured out how it should happen and what level of government is the most appropriate to handle recreational education. King County does some amount of general river safety education for their rivers.

Sandy then noted that the LWM advisory committee also is considering changing the protocols by adding a threshold. She explained that they used a PSP grant to survey recreational use of the rivers to find out where it is happening. They hope to use the information to focus the intensity of their efforts; for example, they might not implement the full protocol in areas with low recreational use. The committee is exploring those options. They also are exploring the public input process so that they can clarify how input is received and handled. She then reiterated Megan's comment that King County used the PSP grant to research how other jurisdictions address this issue and found that no other jurisdictions were looking at safety with the same intensity and thoroughness as King County.

Sandy concluded that wood is important for both structural and biological functions. Public safety must be a primary consideration in the placement of wood, especially in an urban area like King County. Balancing the needs requires cooperation, coordination, and compromise.

Chair Tharinger asked if there were any questions.

David Troutt asked if an effort to identify areas where wood would not be placed was part of the King County discussion. Sandy replied that one of the safety concerns raised is whether there are places where wood is not appropriate. These areas might include the outside bend of river because that is where the flow would tend to take recreational users. David asked if

they have designated those as off limits. Sandy replied that they have not made that decision, but it is something that is considered in the design options. There have been discussions about the appropriate places for wood, and whether there are alternative locations that could give the same ecological benefit and avoid the most dangerous areas for recreational users.

Sara asked about the effect of the protocols on private landowners. She noted that outer bends of rivers could work their way onto the land and threaten property and homes, so landowners may want to use rock or wood to protect their infrastructure. She asked if the policy would apply to them. Sandy responded that everything she talked about applies only to county-sponsored projects because they are internal protocols and administrative rules. In 2008, they recommended that public safety could be considered by private or non-county government projects, but the rules would not apply. The permitting agency for King County would be the one to trigger any consideration of public safety for private landowners.

David asked if any of the projects that she showed were SRFB projects. Sandy responded that Auburn Narrows and Fenster were SRFB projects, and noted that they were a few years old.

Megan then presented the staff's recommendation. Staff recommended that the SRFB give RCO direction to get public comment on the approach, which is based on King County's process protocols. Staff would like input from the public and other state agencies that are looking at the issue. As examples, Megan noted that DOT is looking at the issue from an implementation perspective, while DNR is considering it from landowner perspective.

Megan then described the recommended approach, noting that it is based on King County's Appendix C protocol that Sandy referenced and was in the board materials. They are suggesting that it be recommended that sponsors follow the protocol but that it not be a requirement. Key procedural steps would be identified from Appendix C to determine which would be most applicable from statewide perspective. Megan also noted that design guidelines are referenced in Manual 18 under the WDFW section, and that they provide some guidance on instream placement of wood.

Bud asked Megan to explain more about the AG's opinion said as far as liability. Megan responded that there are legal doctrines that would likely shield the board, although all legal doctrines are not infallible. Kaleen stated that it is the public duty doctrine.

Bud noted that he is on the UCSRB, and when he gets these questions, he tries to run them by staff to get their input on it. One of the concerns about this item is to get an update on the status of the aquatic lands lease with DNR as far as these things go. It could have the effect that it would increase the costs and possible deniability. Kaleen asked Lisa (from DNR) if she was prepared to provide any information about DNR's approach. She noted that DNR would be publicly introducing its approach soon.

Steve Tharinger noted that he had several public comment cards. He said he appreciated that the options were considered in light of the criteria identified, including liability, the

SRFB's key objectives, the impact on habitat projects and the likelihood of improving public safety. He noted the primary purpose of the board is to fund habitat and restoration projects that contribute to salmon recovery. Steve indicated that the board is aware of the public safety issue and has been discussing it over the course of the last year and appreciates King County's efforts. He stressed however that the primary role of the SRFB is salmon recovery. Education and outreach, information that indicates where LWD projects are located, and signage are very important for informing the public, but the board's primary role is salmon recovery.

Public Comment:

Alan Barrie WRIA 9. Mr. Barrie introduced himself as a 38-year member of Washington Council of Trout Unlimited, a charter member of the Mid Puget Sound Fisheries Enhancement Group, having recently served as board president, and a member of the WRIA9 Steering Committee and Forum for the past twelve years. He stated that he was asked to represent the WRIA 9 Forum in this discussion. Mr. Barrie read from a statement that is summarized below.

"In my years of sport fishing and fishery involvement, I have boated many rivers in western Washington, and have seen first-hand the hazards of natural wood, and also the benefits of wood to a riparian habitat.

The engineers that do the research, identify the scope of the job and design the wood installation are all licensed professionals. The objective of restoration of our salmonid resources is placed in a secondary role as King County identified safety as the premier objective.

At a recent large wood workshop held on Mercer Island, the King County Sheriff's department gave some 'unofficial' findings that showed the prevailing rescue need came from stranding mid-stream, being on the wrong side of the river, and slipping and falling on rocks.

My wife and I attended 'Reunion Picnics' at Flaming Geyser State Park. We witnessed countless recreational floaters accessing the Green River in the park while walking by a large sign posted by the park department warning of the potential dangers downstream. None of these floaters were wearing any personal floatation devices or other protective equipment.

If the objective of saving our salmonid resources is to be met, the placement of another hurdle to habitat restoration in the name of safety cannot be allowed.. The 'standard' line by the safety folks is 'Would you want your child or Grandchild to be the victim of carelessly placed wood?' Of course the answer is NO. In the marine boating regulations, every person 12 and under MUST be wearing a PFD while the boat is in motion!! Recreation on any river or moving water is inherently hazardous and safety precautions MUST be used. Sacrificing

our Salmonid resources is unacceptable to those of us that are willing to spend our time and treasure to assure survival."

Chair Tharinger referenced a letter dated February 27, 2008 that was received by the RCO in August 2009. He noted that the letter was from Dow Constantine to the chair of the King County Council, and read the following from the letter: "We support people informing King County about hazardous conditions on rivers to improve public awareness of safety considerations and dangers. We support placement of wood in rivers in a way that reduces risk to river users while fulfilling the essential ecological functions of wood."

Joan McBride, Deputy Mayor of Kirkland, and vice-chair WRIA 8 Salmon Recovery Council. Ms. McBride noted that they are a council of 27 local governments working together to implement plans to restore salmon in their watershed. Wood is a very important of the restoration plan, so this is a very important issue for them. She asked whether there has been an assessment of the problem. She stated that King County has been working with boaters since 1998 on wood in rivers, and is not aware of any incident in which anyone has been killed or injured in that county. She stated that the facts speak volumes, and make her ask "where is the problem, what is the problem, and are we addressing the problem?" In addition, she would like to caution the board not to create another statewide hurdle for salmon project implementation. Ms. McBride stated that another issue is that the project sponsors already work hard to meet the permit requirements, and that the engineers are responsible, licensed, professionals who must consider public safety in designing the habitat restoration projects. She believes that the King County ordinance does not balance safety issues and habitat restoration, noting that section 1, item f, states that the "greatest safety for river users will be the primary consideration" is not language of balance. She continued that in her city role, she has to always look at public safety but that on the WRIA, she just needs to be concerned about fish. She stated that if you are concerned about fish, this is a hugely important issue. Wood makes sense from an economic standpoint, it's good for the environment, and it's pleasing to recreational boaters. Someday, we may get to the point where if we really want to ensure safety, we'll just build water parks. Right now, she does not see a safety problem.

Joe Ryan, PSP, said that the other speakers had already addressed what he wanted to say about the inherent dangers of wood in rivers and the need for boaters to wear PFDs, so he would like to speak briefly to the proposal to go out for public comment. He wonders if it is the best step at this time. His concern is that it builds up a head of steam for an outcome that the board may not be seeking. If we put up some guidelines, and then someone doesn't follow them, then the sponsor's liability is actually increased, so the pressure to make these required rather than suggested will increase over time. He continued that he looks at some of the procedural steps, in particular outreach activities and the work with stakeholders, and wonders where those funds will come from. He asked if the costs would be built into the capital funds of the project, or would there be some other source. He also asked if it is the best use of salmon recovery funds to do that. He concluded that the PSP has great concerns about the recommended approach, and would be happy to work with the board on the issue.

Peter Birch, Deputy Asst. Director for Habitat Program for WDFW stated that Sandy and others have done a good job of outlining the value and importance of large woody debris and its function in stream restoration work. It's a critical component to the habitat. He added the point that if you look at the SCC 2005 limiting factors summary report, it notes that 85% of the watersheds researched had a poor rating for large woody debris. This is higher than for any other aquatic limiting factor. With that in mind and the importance of it, he noted that WDFW supports properly designed and engineered large woody debris, so they have worked with other agencies and produced two manuals that have already been mentioned – Integrated Streambank Protection Guidelines and the Habitat Restoration guidelines. He stated that both manuals give the sort of information needed for these types of projects. He explained that they do mention safety, but that WDFW would like to see an upgrade and update of the manuals. He stated that they support the idea of considering safety, and are available to help with the RCO, River Safety Council, or King County to incorporate the procedural guidelines. WDFW would like to look at it as a way to update the manuals. Peter continued that they need to look at this as being two goals: a goal of safety, and a goal of augmentation of large woody debris in streams, not one or the other. He stated that the King County language concerns him because it does not provide that balance. Safety concerns need to modify the way in which we look at large woody debris installation, not reduce, or slow down, the rate. He said that we have to consider both of those things, and some of the procedures in Appendix C look reasonable as prerequisites in preparing an application for restoration project. They do "due diligence" to the things that need to be done with signage and public involvement. A balance needs to be struck between safety and recovery.

Judy Filips, Chair of the River Safety Council (RSC). Judy explained that the RSC is comprised of representatives of the Mountaineers, American White Water, Washington kayak Club, Paddle Trails Canoe Club, Rescue 3 Northwest, and Downstream River Runners. She stated that they spend a lot time on the rivers. She explained that she lives on the Cedar River, which is a salmon bearing stream, and wants to see the salmon runs restored. She stated that she worked on developing the Cedar River Basin plan 15 years ago, served on the Cedar River Council for 12 years, and stenciled storm drains. This is an issue she believes in, but wanted to tell the board that the Cedar River Council is based in a rural area, and has two representatives from the King County Council. They hear from citizens about kids on inner tubes who wash into wood and get sucked under it. They stand for election, and can't take an arbitrary stance on safety or no safety. The recent ordinance requiring safety as a primary consideration in construction is a result of what they have heard over the last dozen years and the experiences that have occurred in the Cedar River basin. The ordinance passed unanimously. Judy continued that King County is taking many good steps in moving forward on the procedures that will help improve safety. Outreach is an issue, but there is not enough money to do it. They are going to have to look at alternatives, such as You-Tube videos that engage rather than lecture, and that is quite a task. She explained that the RSC does not want to be standing on stream banks pointing out hazards, the same hazards that they have been pointing out for 12 years. She stated that there are safer ways of putting wood in rivers, and that she would rather have wood than tires or fencing to hold back the banks. The RSC would like the engineers to take responsibility for making designs safer rather than the interim step of having the public point out the problems. She stated that it is doable, and they will be held accountable, and that

she believes it is a good thing. She shared a document – Herrara Environmental Consultants' Recreational User and Public Safety Checklist for wood placement project in riverine environments. She stated that the RSC thinks it is a reasonable approach once the engineers are on board and designing, knowing the hydraulics, to have the neighbors tell them what the use is and what they haven't considered. The knowledge and responsibility should be with the professionals.

Bud Hover asked if the River Safety Council is exclusively concerned with manmade structures. Judy responded that they have focused on manmade structures, with the exception of an annual media campaign about inner-tube safety.

Bud responded that he is concerned that they are giving the impression that the designs are somehow "inner-tube safe" or "boater safe", and that when people encounter a natural logjam, which could be very dangerous, they will assume the same thing. They should be treating all logjams and woody structures as hazards. Judy agreed that they should all be approached as if they were dangerous. She noted that some of the logjams are backfilled with gravel and impervious surfaces so no water gets through them, so the primary safety issue is snags. Bud clarified that naturally occurring logjams aren't created that way. The goal is to bring the river back to what it would be naturally, and that it seems like we're reaching too far to say we can make these things completely "boater friendly."

Judy responded that they have focused more on where the logjams are placed, rather than what they are. The outside of the bend is a very dangerous place because it naturally collects debris, and the river will take people there. There are safer places to put the wood. Bud noted that the wood is being placed there as a function of salmon recovery, and therefore needs to be placed according to what will do the job, not necessarily what is the safest. He stated that they should not put the log strip where it's safe if, as a result, it does not provide what they need to achieve their goals.

Harry Barber noted there is a misconception that logjams are log dams. As such, they are not deflectors of the current, but are velocity breaks. The purpose is to aggregate gravel below the logjam to create spawning areas. He explained that with the logjams he has been involved in, it is difficult to tell if it's manmade or natural. Harry continued that placement is important, but a one size fits all approach is a concern because something that may be needed by King County citizens and is not necessarily appropriate for the upper Washougal River, or where they have logjams that are built by helicopter or in isolated areas.

Chair Tharinger suggested that they reach a board decision. He noted that he has been arguing with his road department to mark out some Olympic discovery trail crossings on the county roads. They have told him the road standards say not to do that because it gives bikers and pedestrians a false sense of safety. He stated that Bud is correct that it is an issue that if you give boaters a false sense that you have a way to manage log jams.

Chair Tharinger asked Sandy if the directive had been adopted. Sandy responded that King County adopted an ordinance in June that directed the KCDNR to adopt public rules by March 2010. They are reviewing the protocols developed in 2008, will move them through

rule adoption process. It is typically an administrative rule, but there could be a council presentation.

Chair Tharinger said that unless there was more public comment, he would like the board to give direction on how to proceed. Staff has given proposed next steps. There was some comment about whether to solicit public input, and that is one issue. The other issues are fairly straightforward, and he asked if the board or staff had thoughts on that or other parts of the recommendation.

Bud wanted to know more about what the other agencies are doing. The chair noted that the agencies have been working on this for a while and that the RCO should take the lead in looking for ways to coalesce policy around this.

David noted that state agency partners offered to work with the RCO to look at the issue and come up with additional recommendations or ideas. He wants to take advantage of that and not go to public review now. He stated that they should spend time doing additional homework. He identified two issues: what do we do about installation of large woody debris with regard to the issue of safety, and an issue as a board in funding projects in areas where local regulations don't support salmon recovery and result in projects that don't maximize the benefit to fish. He asked if the board should continue to fund those projects.

Chair Tharinger referred to the factors that staff considered options "in light of" and suggested prioritizing them. He stated that he looks at it as a hierarchy of priorities. The first priority, legal liability, is an issue, but the board has some protection under the public duty doctrine. The second priority is salmon recovery and that is the board's role. The chair stated that the board's recommendation is to come back after talking with other agencies based on this hierarchy of options. He instructed staff not to go out for public comment until they have talked to the agencies.

Bud clarified that he is sensitive to the dangers and hazards, and agrees that public safety is important. He stated that the board is taking the wrong approach if we try to make something that is inherently unsafe appear to be safe, instead of educating the public in what they should or should not do around these things. He noted that the board has a function to perform, so they look at it from a different perspective. Public safety is important, but the board has to see what will help them achieve the goal and then educate the public.

Harry supported the recommendation to have staff talk to other agencies, and also suggested that they should look at what's in place in municipalities or counties or permitting agencies that looks at the safety side of things.

Steve noted that the nexus with local policy is the guidance in the project manual related to this issue. Sara noted that the guidance in the project manual is the WDFW stream habitat and restoration guidelines, developed in 2003 by the experts. She stated that they have been working with RCO and Partnership to come up with a way to update the guidelines. It is a great document developed by the best in restoration science.

David Troutt supported Bud's comment that the board is concerned with public safety, but noted that humans have altered the environment for so long, that the fish cannot survive under those conditions. He stated that they are trying to get the fish back, and putting on additional restrictions that don't maximize ability to restore or recover is not doing our job. On the issue around whether we distinguish between installed and natural woody debris, he noted that people die annually on the Nisqually due to natural woody debris.

Chair Tharinger asked Megan if she had any clarifying questions. Megan stated that she understood the board's direction to be (1) no public comment at this time, (2) work with sister state agencies to develop some other options to bring back at a future board meeting.

Bill Language: HB 2957

AN ACT Relating to removing potential barriers to successful salmon recovery efforts; and adding a new section to chapter 77.85 RCW.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. Sec. 1. A new section is added to chapter 77.85 RCW to read as follows:

(1) Subject to subsection (3) of this section, a landowner is not liable in contract or tort for any personal injury, death, or property damage that arises out of the use of the landowner's land by:

> (a) A person conducting a fish habitat improvement project using state or federal money for the purpose of building the project; or
>
> (b) A participant in a state or federally funded watershed or stream restoration or enhancement program.

(2) An operator, timber owner, or landowner may not be held liable for any damages resulting from:

> (a) A fish habitat improvement project done in cooperation and consultation with the department, a tribe, or the salmon recovery funding board, or conducted as part of a forest practice in accordance with chapter 76.09 RCW; or p. 1 HB 2597
>
> (b) Leaving large woody debris within the waters of the state to protect, retain, or recruit large woody debris for the purposes of enhancing fish habitat or water quality improvement, if such a project was funded by state or federal money for the purpose of building fish habitat or water quality improvement.

(3) The limitations to liability provided by this section only apply if:

> (a) The damages, injury, or death were not caused by willful, wanton, or intentional conduct on the part of the operator, timber owner, or landowner or by the gross negligence of the operator, timber owner, or landowner; and
>
> (b) The project was properly designed and constructed to meet appropriate standards of care that adequately address and mitigate for potential hazards to public safety.

--- END ---

Appendix F

Public Safety

1 Introduction AF-1
1.1 Overview of public safety concerns AF-1
1.2 Balancing public safety concerns and habitat restoration goals AF-1
2 Approach for ensuring public safety AF-2
3 Integrating Public Safety into the Design Process AF-3
3.1 Goals and objectives AF-3
3.2 Survey and analysis AF-4
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Appendix F. Public Safety

1 INTRODUCTION

The following appendix provides general guidelines for addressing public safety concerns associated with stream habitat restoration projects. These guidelines can serve as an outline of a process of inquiry that can provide the due diligence required by a project lead to incorporate public safety into the design process discussed in greater detail in Chapter 5, *Designing and Implementing Stream Habitat Restoration Techniques.*

1.1 OVERVIEW OF PUBLIC SAFETY CONCERNS

Public safety associated with stream habitat improvements has many facets. Most notably perhaps are recent concerns highlighting conflicts between public recreation and large wood habitat structures. However, public safety concerns also include the interaction that habitat measures may have with flooding of riparian lands, increased erosion of stream banks and beds, and integrity of public and private infrastructure and property such as structures, roads, dams, buildings, and utilities. These concerns are shared across a broad audience of stakeholders that include local sheriff departments, river user groups, and regional authorities that have operational or maintenance responsibilities, as well as public and private landowners.

The interaction of public river users and in-stream obstructions, in most cases, carries the highest risk to public safety. While the guidelines in this appendix address the range of concerns associated with public safety and stream habitat restoration projects, an emphasis is placed on risk to recreational users and others that frequently interact with rivers.

1.2 BALANCING PUBLIC SAFETY CONCERNS AND HABITAT RESTORATION GOALS

Rivers and streams carry inherent risks to public safety. Stream habitat restoration projects can increase or decrease these risks at different locations along a stream reach. An example of how a restoration project may increase risk is by placing large wood habitat structures along a streambank or in the middle of a stream that could pose a hazard to river users. An example of how a restoration project may decrease risk is by lowering channel gradient or reducing streambank heights thereby reducing channel velocities and providing better escape routes. The level of risk associated with a given restoration project should be evaluated at all project stages, including identification of goals and objectives, various investigations, alternatives analysis, design, construction, and post-construction. Throughout all phases of a restoration project, it is critically important to engage stakeholders and ensure they have the opportunity to provide comment at a time when their suggestions can successfully be incorporated into the project.

Of primary importance is the need for project designers to adequately document the decisions, actions, and the process used for addressing public safety and the reasons for these decisions and actions throughout each phase of a project. This is particularly true given the absence of defined standards of practice for addressing public safety for restoration projects.

As discussed in Chapter 5, risk evaluation is often a subjective, qualitative, and uncertain process and will vary from project to project. This is largely due to the complexity of dealing with the natural environment (natural rivers that have inherent dangers; variability in river conditions and

risk in different locations and at different flows), variations in public use (locations of use, times of use, type of use, and level of user expertise) and even the procedures used to determine risk. As such, risks for any given project are situational specific and should be evaluated relative to the user groups associated with the project, stream type, project context, and project components as discussed later in this appendix. In this process, it is important to also consider the responsibility of public users to be safe when using rivers. The primary focus of this appendix is on how restoration designers can reduce risk to public safety although recreational users and other affected groups should be knowledgeable of their shared responsibility in reducing risk. Public outreach efforts should reiterate the responsibility of river users to wear proper safety equipment, gain knowledge of safe river travel, and abstain from using intoxicating substances while using rivers.

Some organizations and agencies such as the River Safety Council in Washington State,[1] Washington Department of Transportation (WSDOT), King County,[2,3,4,5,6] and the Natural Resource Conservation Service[7] are beginning to develop design guidance and specific design standards for addressing public safety for restoration projects. The guidance developed by these different organizations and agencies often have different approaches for addressing public safety. Consequently, uniformly accepted state-wide or local guidance is not currently available and, in most cases, methods for addressing public safety are up to the discretion of the project proponents, designers, and stakeholders.

2 APPROACH FOR ENSURING PUBLIC SAFETY

Public safety considerations surrounding habitat projects are too often identified as an issue when final designs are reviewed by the stakeholders or agencies. Designers often identify public/private infrastructural risk or flooding issues during their goals and objectives development phase but often overlook or dismiss recreational use as data on recreation is usually assumed to be unavailable. This occurs despite the pledge taken by registered professionals (e.g., engineers, fisheries biologists, geologists, surveyors) to safeguard life, health and property and promote public welfare. The Revised Code of Washington (RCW) 18.235.130[8] states "The following conduct, acts, or conditions constitute unprofessional conduct for *any license holder* or applicant under the jurisdiction of this chapter: (4) Incompetence, negligence, or malpractice that results in harm or damage to another or that creates an unreasonable risk of harm or damage to another".

Funding sources too, emphasize and much too often directly support minimal design efforts to maximize the dollars spent on implementation/construction. Despite these challenges, it is essential that design teams thoroughly explore project goals and objectives and forward public safety considerations through each project phase to ensure compliance with Washington State"s professional licensing provisions.

As standard practice, each project should:

1. consider public safety early and throughout habitat restoration project planning, design, construction, and post-construction.
2. engage and make reasonable efforts early and throughout project development to understand and define public safety concerns that the public and stakeholders may have throughout the life span of a project.

3. document the due diligence process for addressing public safety (document the public safety decisions/actions that were made/implemented and why).

These three tasks should be tailored to project size and relative impacts discovered as the project develops. Some projects will require minimal efforts, while others warrant significant efforts. Regardless of project size, every project should follow a prescribed pattern of investigation.

3 INTEGRATING PUBLIC SAFETY INTO THE DESIGN PROCESS

A thorough stream habitat restoration design process or standard of practice is described collectively in Chapters 4 and 5. Public safety considerations need to be integrated early and throughout the project design process. Changes to designs late in the process can be expensive and can cause unnecessary tensions among designers and stakeholders. For consistency, we address public safety in tandem with the components of the project design process as described in Chapter 5.

3.1 GOALS AND OBJECTIVES

Project design should begin by defining the purpose and specific desired outcomes for restoration. Specific and measurable goals and objectives should then be developed based on this effort. An important part of the design process should be to identify and minimize risks to public safety. The amount of detail associated with public safety will depend on many factors including: (1) the number and types of individuals potentially at risk such as recreational users, adjacent landowners, and workers that frequently interact with streams and rivers, (2) size of the project, (3) location of the project, and (4) type of project. Components of the design process that account for public safety can be addressed through design criteria that identify specific, measurable attributes of each design component (see Chapter 5). Examples of items to be considered that may have adverse effects on public safety and that may be incorporated into a project"s design criteria often include:

- Identification of issues of concern to the public and stakeholders (landowners, river users, environmental groups, tribes, public agencies, emergency responders, etc.).
- Identification of potential issues associated with infrastructure (roads, pipelines, bridges, dikes and levees, irrigation structures, various floodway designations etc.).
- Identification of potential issues associated with project features (habitat features, construction access/staging, material stockpiles, dewatering, river side trails, fishing/boating access, etc.).
- A relative ranking of risk associated with each project objective and associated project element. These can be broken into categories such as „acceptable", „tolerable", or „unacceptable" and can be helpful in identifying project components where a low, medium, or high level of consideration is required for addressing public safety risk.

The development of specific objectives must go beyond the typical client/landowner design team discussion and include gathering information and thoughts from user groups and public safety organizations. This is particularly true for reaches of stream with regular recreation, infrastructure risk and/or other potential safety hazards (e.g., in-stream obstacles).

3.2 SURVEY AND ANALYSIS

This investigative phase of project design serves as the design‟s technical foundation. It involves gathering necessary site and historical data, conducting technical analyses for characterizing and analyzing existing conditions, deriving input values for subsequent design analyses, and predicting restoration outcomes relative to project objectives for different alternatives. This phase of a project should include data gathering for issues identified in the goals and objectives phase.

Table 1 provides an example of the type of existing conditions data helpful in evaluating public safety risk. Some of the information in the table may not be available for a given project. Depending on the project size and potential risk to public safety, it may be necessary to conduct more in-depth studies to evaluate risk. Public user group characteristics listed in Table 1 may have already been compiled by public agencies or organizations for different reaches within a jurisdiction or watershed. Consult local governments, sheriff‟s departments, landowners, river recreation groups and businesses, and natural resource and transportation agencies to gather relevant information. A particularly useful resource for river conditions and public use information is the American Whitewater river info website which provides data such as river difficulty, flow range, access points, and hazards for over 350 rivers in Washington.[9] Much of the existing reach characteristics listed in Table 1 should be collected as part of the stream habitat survey and analysis for a given project as described in Chapter 5, Section 5.1.1.

Table 1. Example of existing conditions data for evaluating risk to public safety.

Category	Risk Evaluation Items	Considerations for Each Item
Public User Group Characteristics	Groups of the public at risk?	Recreational users such as swimmers, boaters, fisherman, and tubers; workers that frequently interact with streams and rivers such as surveyors, construction and maintenance workers, and river scientists; the travelling public who use bridges, roads, trails, and other infrastructure that come close to or intersect streams and rivers; and adjacent and downstream property owners.
	Locations of use for different groups and method of travel?	In stream, along banks, on roads/bridges; in kayaks, canoes, tubes, on foot.
	Frequency and timing of interaction of different user groups with the project?	High, medium, or low frequency. Seasonality of use. Public event dates. Range of flows when recreation is common.
	Skill level of identified user groups?	Beginner, intermediate, advanced.
	Ease of access?	High, medium, low. Are there frequent and easy places to access the river?
	Accident reports for the project reach?	Number of incidents, types of incidents.
Existing Reach Characteristics	Project location?	Remote, rural, urban.
	Valley type?	Wide, moderate, confined. Are there easy escape routes along the reach?
Existing Reach Characteristics	Channel type, planform?	Pool-riffle, step-pool, plane-bed, cascade. Is there significant site distance upstream of obstacles to allow users to direct themselves away in adequate time?
	Channel gradient?	High, medium, low. Does the river have a high velocity that would make it difficult to avoid obstacles?
	Dominant hydrologic regime and stream flow rate?	Range of stream flows and typical flows when different public users are accessing the stream.
	Existing obstructions?	Large woody debris jams, boulders, natural grade drops, hydraulics or holes, constrictions, eddies, etc.
	Public and private infrastructure?	Roads, bridges, culverts, levees, weirs, dams, etc.

This phase of the project can also involve identifying and notifying stakeholders affected by the project and ensuring that they are part of the process for evaluating public safety risk and defining project design alternatives. These groups might include some or all of the following: adjacent and downstream landowners, river users (e.g., paddling, fishing, and hunting clubs), river guides, fishing and hunting outfitters, environmental groups, tribes, public agencies, law enforcement, and emergency responders. Identified stakeholders should be notified of the project via various forms of communication such as letters, e-mail, phone calls, in-person contact, brochures, signage, websites, and media outlets.

3.3 CONCEPTUAL ALTERNATIVES EVALUATION

For any given habitat restoration project, a myriad of alternatives, or suites of project techniques and associated project elements may exist to remedy the problem and achieve desired project outcomes. The procedure for developing concept alternatives, weighing the different alternatives, and selecting a preferred alternative is described in detail in Chapter 5, Section 5.1.2.

For each alternative, the risk to public safety should be considered. Table 2 provides a summary of items to consider when evaluating the risk to public safety associated with different concept alternatives. The table is not an exhaustive list but provides common elements for consideration. Items in Table 2 should be considered in tandem with the public user group and existing conditions information collected in the survey and analysis phase of the project (summarized in Table 1).

Table 2. Proposed conditions data for evaluating risk to public safety.

Category	Risk Evaluation Items	Considerations for Each Item
Proposed Project Elements	Overall project elements	• Are project components increasing risks to public safety (e.g., placement of large woody debris may increase risk of capsizing boats and of entrapping swimmers, removal of a dam or levee may decrease risk)?
	Location of in-stream features/improvements	• On the outside of a meander bend? • In a constricted reach? • In a location with inadequate sight distance to allow boaters or swimmer time to safety exit the water or inability to circumnavigate the structure? • Is there an opportunity to portage around structure? • In a location that creates dangerous channel hydraulics? • Located upstream or in proximity of bridges or other infrastructure that could be compromised if the habitat structure fails? • Placed in close proximity to recreation access points or in locations where significant public interaction is expected?
	Position of in-stream structures	• Are in-stream structures positioned or angled in such a way that increases potential for pinning or entrapping a boat or swimmer? • How do different flow levels affect hydraulics or positioning of eddie lines?
	Design characteristics of in-stream structures	• How are the in-stream structures anchored in place? • Has adequate ballasting been provided to ensure stability? • Is the structure causing straining (phenomenon by which swift water flowing through a structure tends to draw floating objects toward

Category	Risk Evaluation Items	Considerations for Each Item
		and into it)? • Are the anchoring mechanisms (i.e., cable, bolts) creating a hazard? • Are sharp objects protruding from the structure creating a hazard? • Have any elements been considered to reduce the potential for straining or pinning such as placement of deflector logs or turning rocks?
	Design life of in-stream structures	• What is the design life of an in-stream structure and the potential for failure? • What are the implications for public safety and infrastructure if the in-stream structure fails?
	Changes in flooding or bank/bed erosion potential	• Will the project increase flooding potential? • Will the project increase bank or bed erosion? • Will the project increase risk of an avulsion? • Will increased flooding potential increase risk to public safety?
	Changes in flooding or bank/bed erosion potential	

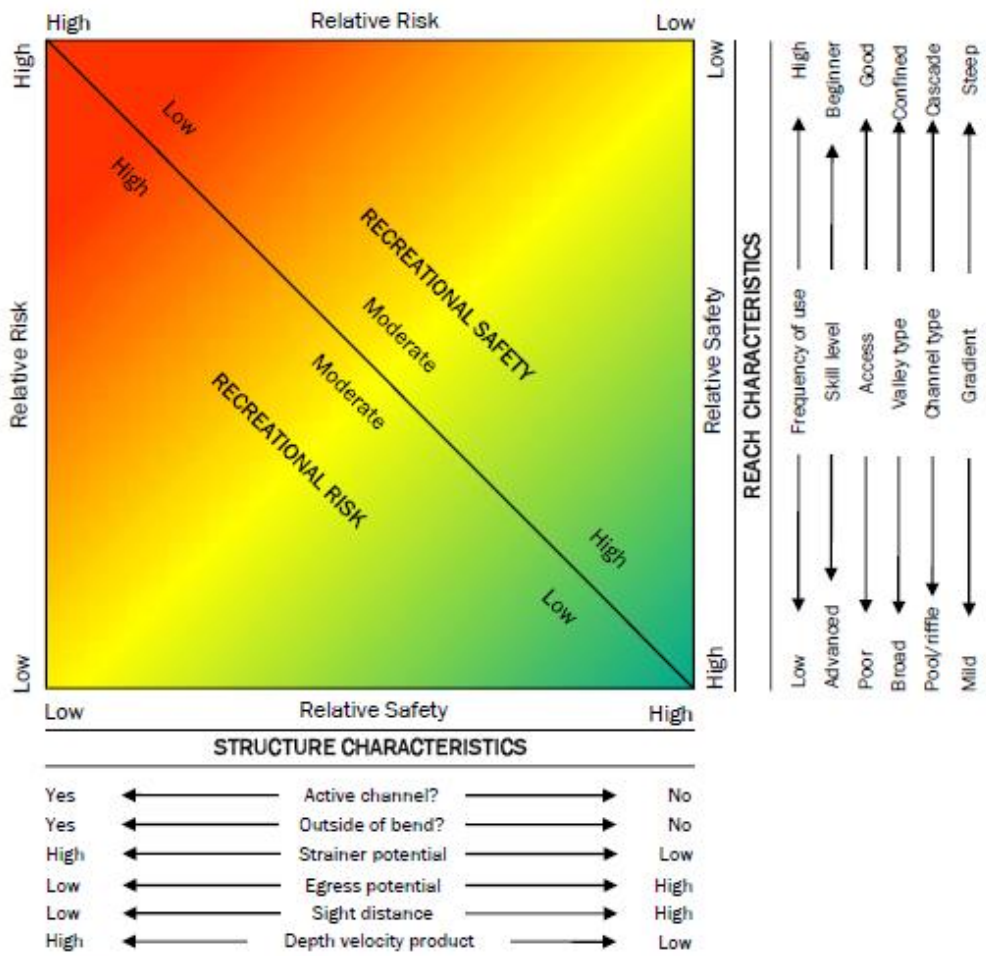
The information collected in Tables 1 and 2 can be organized and evaluated using a matrix such as the one developed by GeoEngineers[10] and presented in Figure 1. This type of matrix can be a useful tool for determining a relative ranking of public safety risk (e.g., acceptable, tolerable, unacceptable) for each alternative. It should be noted that the matrix in Figure 1 is specifically focused on the relative risk to recreational users when placing in-stream structures such as large woody debris and is based on the characteristics of the structure(s) and the characteristics of the reach. A project may include other design components and affect other members of the public such as the traveling public or adjacent or downstream landowners for which this matrix may not be applicable. Any matrix or set of matrices used for evaluating public safety risk should not be used as a standalone tool; rather, they should be used in context with other gathered data for understanding risk to public safety and long-term liability, and should be evaluated alongside other project goals and objectives for gaining an overall understanding of a project‟s potential impacts and benefits.

Identified stakeholders should be included in the evaluation of concept alternatives and should be provided the opportunity to interact with the design team and comment on the different alternatives. This interaction can take place via public meetings, one-on-one communication, and/or public comment periods. Public involvement and outreach is critical for all projects although the level of involvement analysis and outreach typically increases or decreases commensurate with the project size and potential impact to public safety.

In most cases, the selected final alternative can achieve the desired habitat enhancement outcomes while also adequately minimizing risks to public safety and future liability. If a project is located in an area with considerable risk to public safety and the chosen alternative is not able to reduce this risk sufficiently, the project team and stakeholders must decide the best way to address the discrepancy. Possible methods for addressing the discrepancy may include: providing public safety signage, moving public access points, implementing additional or

alternative habitat measures, or reconsidering the project scope or location. This evaluation should take place on a case-by-case basis and be mutually decided upon by the project team and affected stakeholders. Once these issues are resolved, the alternative and all its unique goals and objectives are then furthered on to the design phase.

Figure 1. In-stream structure safety assessment matrix (GeoEngineers[11]).



3.4 DESIGN CRITERIA

Design criteria are developed directly for each project element defined for the selected alternative. Development of design criteria is discussed in detail in Chapter 5, Section 5.1.3. Design criteria for public safety should be derived directly from the investigations into issues discussed in 3.1 above. These criteria will directly affect how the design team crafts various project elements. Typical criteria establish guidelines or boundaries for the design and often include the following:

- Criteria associated with the public and stakeholders (access conditions, fencing, sight distances, season of use considerations, signage etc.).
- Criteria associated with affected infrastructure (criteria for habitat feature scour, rates of deformability, hydraulic stability, influences on flood heights etc.).
- Criteria associated with project components and phases (criteria for in-water structures, habitat components, construction access/staging, material stockpiles, dewatering, etc.).

Some general suggestions on public safety design criteria are offered in the reference materials provided in Section 6 below.

3.5 DESIGN

Project design typically occurs in a number of stages, generally categorized as concept-level design, draft or intermediate design, and final design. The design process is described in detail in Chapter 5, Sections 5.1.3 and 5.1.4. Stakeholder involvement should continue throughout the design phase to ensure that stakeholders agree on the chosen design alternative and understand the potential habitat benefits and potential risks to public safety. Substantial changes occurring during the final design stages may require additional input from the project team and stakeholders depending on the project size and potential impact to public safety.

In the early stages of design, particular attention needs to be paid to these primary design elements:

- Hydrology and how it varies with seasons or levels of public use.
- Hydraulics and any changes in flooding (amount, extent, and location) as a result of channel/floodplain modification, addition/removal/modification/ affected bridges, roads, dams, buildings, utilities, levees, and/or in-stream habitat structures and how these change with varying flow levels.
- Physical hazards that may be created/removed as a result of channel/floodplain modification, addition/removal/modification/damage/ bridges, roads, dams, buildings, utilities, levees, and in-stream habitat structures.

The design team will need to determine how the project can be designed to account for identified public safety risks (e.g., location, orientation, elevation, and size of structures/obstructions; anchoring methods; degree of interaction between flowing water and placed structures at different flows). If specific safety mechanisms are to be incorporated, such as safety signage and maps along the project reach, the language and location of these signs should be included as part of the design plans and specifications. Regardless of the measures considered and incorporated into the design, it is very important that the design team documents how public safety concerns were addressed during the design phase. This can be facilitated by relating what measures were taken to meet public safety design criteria established for each project element.

Documenting safety considerations and measures taken to reduce risk is part of a due diligence process that every project design team should undertake. Documentation should also include discussions with stakeholders throughout the design process. This action will help ensure that the intent of the design team lives beyond project implementation. It also provides a basis for

future stakeholders to better understand the circumstances surrounding the chosen design alternative and understand the desired habitat benefits as well as public safety risks/benefits. Another consideration design teams should address is an appropriate monitoring schedule for project components and post-construction communication/outreach to the public and affected stakeholders. This action should identify key personnel or user groups that will implement the habitat monitoring, maintenance, repairs, communication/outreach, and adaptive management measures called for during the life of the project. Developing a schedule for evaluating project components can ensure that the risks to public safety do not increase over time as well as provide the design team with a mechanism to ensure that their project continues to perform as intended over the project‟s design life.

4 CONSTRUCTION

Most construction contracts require the operators to submit a traffic, site and public safety plan. These plans are commonly updated weekly during regular meetings of the construction team, client and various stakeholders. Prior to construction, stakeholders should be notified of the construction schedule and provided information on the construction plans, potential safety hazards specific to the construction phase, and alternate access points during construction.

As the project proceeds, the construction project team should ensure that public safety signage, maps, and contact information for project personnel are maintained during the construction phase. Any necessary updates to public safety concerns also need to be regularly disseminated to those affected. Also, it may be warranted to update project documentation following implementation if as-built conditions vary significantly from final designs.

5 POST-CONSTRUCTION

After construction is complete, stakeholder communication and education should continue via the monitoring entities identified during the design phase. Communication with the public and stakeholders may need to continue via multiple methods including updates to location maps, replacement of educational and warning signage, personal communication with identified outreach personnel, and website information including a comment section for reporting concerns and problems. The communication/outreach personnel may also choose to partner with local river guiding and rescue organizations to encourage or offer river safety and rescue training to river users.

Monitoring of project design components should continue on the schedule identified in the design phase. Monitoring will help determine when project components are degrading and in need of repair or removal. As described in the previous paragraph, avenues of communication and reporting should be in place to allow for public comment and reporting when a structure has degraded to the point of posing a significant risk to public safety. The monitoring team should establish actions to be taken in the event that modification of project components leads to increased public safety concerns or liability.

Adaptive management is a critical component of most habitat restoration projects. Over time, projects should be periodically evaluated to determine the need for modifications, repairs, and/or enhancements based on items such as new information, policies, public safety risks, and

changing river conditions. Stakeholder meetings may continue as part of the adaptive management process.

6 PUBLIC SAFETY POLICIES AND REFERENCES

As discussed above, definitive guidance or standards of practice for minimizing public safety risk associated with stream habitat restoration projects are generally unavailable. Some organizations and agencies such as the River Safety Council of Washington, Washington Department of Transportation (WSDOT), and King County are starting to develop design guidance and specific design standards for addressing public safety for restoration projects. Development of this type of guidance is on-going and, thus far, mostly jurisdiction specific. In addition, these guidelines were developed by various organizations and are not necessarily representative of the broad range of interests held by the various stakeholders concerned about habitat restoration and risks to public safety. In the absence of generally accepted definitive guidelines, these resources can provide a starting point for evaluating and addressing public safety risks.

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[1]River Safety Council. 2007. Proposed Safety Guidelines for the Construction and Placement of Large Woody Debris (LWD) Affecting Streams used for Recreation in Washington State. www.riversafetycouncil.org.

[2]King County. 2010. Procedures for Considering Public Safety When Placing Large Wood in King County Rivers. King County Department of Natural Resources and Parks. Seattle, WA. [March] http://www.kingcounty.gov/environment/watersheds/general-information/large-wood.aspx

[3]King County. 2010. Procedures for Considering Public Safety When Placing Large Wood in King County Rivers – Appendix A. King County Department of Natural Resources and Parks. Seattle, WA. [March] http://www.kingcounty.gov/environment/watersheds/general-information/large-wood.aspx

[4]King County.2009. Large Wood Stakeholder Committee Final Report and Recommendations. King County Department of Natural Resources and Parks. Seattle, WA. [October] http://www.kingcounty.gov/environment/watersheds/general-information/large-wood.aspx

[5]King County. 2009. Ordinance 16581. Ordinance Requiring Adoption of Rules Addressing Procedures for Establishing Large Wood Emplacements in Rivers or Streams. King County Department of Natural Resources and Parks. Seattle, WA. [June] http://www.kingcounty.gov/environment/watersheds/general-information/large-wood.aspx

[6]King County. Large Wood References. 2009. King County Department of Natural Resources and Parks. Seattle, WA. December, 2009. http://www.kingcounty.gov/environment/watersheds/general-information/large-wood.aspx

This document lists approximately 400 references from scientific literature emphasizing peer reviewed articles and also includes a handful of technical reports, reviews, and books on large wood in rivers.

[7]Shields, F. D., Jr., Wood, A. D. 2007. The use of large woody material for habitat and bank protection. Technical Supplement 14J in Stream Restoration Design, National Engineering Handbook Part 654, USDA-NRCS, Natural Resource Conservation Service, Washington, D.C. (http://www.ars.usda.gov/SP2UserFiles/person/5120/large_woody_material.pdf)

[8]Revised Code of Washington (RCW). Chapter 18.235.130. Unprofessional Conduct – Acts or Conditions that Constitute.

[9]American Whitewater. River Info – National Whitewater Inventory. Washington River List. www.americanwhitewater.org/content/River/view.

[10]GeoEngineers. 2011. Public Safety Assessment of Habitat Enhancement – Fobes and Skookum Reach Restoration South Fork Nooksack River, Whatcom County, Washington *for* Lummi Nation Natural Resources. Bellingham, Washington.

[11]GeoEngineers. 2011. Public Safety Assessment of Habitat Enhancement – Fobes and Skookum Reach Restoration South Fork Nooksack River, Whatcom County, Washington *for* Lummi Nation Natural Resources. Bellingham, Washington.