2017 Lead Entity SRFB Reporting (Appendix M)

Lead Entity name: *WRIA 1 Salmon Recovery Board*

Please provide the following (located on pg. 138-139 of Manual 18):

4. Local review processes. (Lead entity provide response)
    a. Provide project evaluation criteria and documentation (local technical reviewer and citizen committee score sheet or comment forms) of your local citizens' advisory group and technical advisory group ratings for each project, including explanations for differences between the two groups' ratings.

    The Project Review Sheet and priority strategies for reaches in the Nooksack River Forks, which are the geographic priorities for listed Chinook populations, are unchanged from 2016. (Attachment A - Ranking Session Documents).

    Also included in Attachment A is a table of WRIA 1 habitat indicators that was prepared and agreed to for the 2015 grant process and has continued to be used in 2016 and 2017. The habitat indicators are used by sponsors and reviewers as part of the local review process.

    The Project Review Sheet is designed to reflect the local strategy for salmon recovery funds. This means that project proposals must be in priority geographic areas for early Chinook (North, Middle, and South Forks of the Nooksack River), and the project must address Tier 1 or Tier 2 strategies as identified in the Project Development Matrices (included in Attachment A). If a project does not address a Tier 1 or Tier 2 strategy, the project proponent needs to provide the rationale for the project strategy and include supporting technical information that supports their explanation.

    The Project Review Sheet categories on which project proposals are evaluated include "Magnitude of Benefit", "Certainty of Benefit", "Timing", and "Project Sequencing". The project sponsors have questions that they respond to on the Project Review Sheet that correspond directly to the evaluation question that the WRIA 1 Combined Review Team (CRT) members use for ranking projects.

    The WRIA 1 Combined Review Team (CRT), which is a combined review team of technical and community reviewers, uses the Project Review Sheet, Project Development Matrices, WRIA 1 habitat indicators table, and other technical documents including the WRIA 1 Salmonid Recovery Plan and habitat assessments for the Nooksack River Forks when reviewing the project proposals. Since the WRIA 1 CRT ranks as a single team that operate by consensus there are not separate team rankings to reconcile.

    The review process for the technical review team members began in March with review of the restoration strategies for each of the reaches in the Nooksack River Forks (North, Middle and South). Invited participants, in addition to the WRIA 1 Salmon Recovery Staff Team, included technical reviewers, technical staff of

organizations, and project sponsors. No new data was presented that would result in changes to the Tier structure of the restoration strategies.

Project presentations and site visits were scheduled and conducted on June 8th. The full WRIA 1 CRT participates with the SRFB Review Panel members in the site visits. Both the WRIA 1 CRT and the SRFB Review Panel members receive the draft applications three weeks prior to the site visits as required in Manual 18.

Early review comments from the SRFB Review Panel members that attend the site visits are distributed to the full WRIA 1 CRT when they are distributed to the sponsors. CRT members are also invited to submit any questions or feedback to sponsors after the site visits if they have follow up questions or observations.

Sponsors were scheduled to present their final application proposals on July 10 to the technical members of the WRIA 1 CRT. The community members of the CRT were invited to attend and all but two attended.

Final applications were due on July 13. As part of the final application, sponsors also are required through the LE process to complete their portion of the Project Review Sheet and to prepare a "memo of change" that identified the changes they made to the proposal since the May draft as an outcome of the June 8 site visits and July 10 presentations. The final application materials were distributed to the full WRIA 1 CRT within two days of being completed in PRISM by the project sponsors.

Technical reviewers met July 18 to discuss and evaluate the project objectives; comments from the technical reviewers were added to the evaluation forms that included sponsors responses and submitted to the full WRIA 1 CRT in advance of the July 25 ranking session.

As part of the ranking process, the CRT members are asked to pre-rank the projects and email their pre-rankings to the Lead Entity Coordinator the evening prior to the ranking session. The Coordinator compiles the pre-rankings as a starting point for discussion at the ranking session. A simple mathematical computation is applied to the pre-rankings to establish a composite ranked order.[1] Table 1 is a composite of pre-rankings received in advance of the meeting.

Table 1 Composite Pre-Ranking of WRIA 1 Projects

Rank	Project Name	Sum of Ranks	Value
1	North Fork Farmhouse Phase 4	23	77
2	South Fork Cavanaugh Fobes	32	68
3	South Fork Camp 18	41	59
4	Homesteader Reach	56	44
5	Middle Fork Porter Reach	58	42

The WRIA 1 CRT reviewed the composite of the preliminary rankings and discussed the different projects and some of the considerations that went into their ranking. A summary of the discussion points is as follows:

[1] The sum of the individual rankings is subtracted from 100 to provide a numerical value.

- *North Fork Farmhouse Phase 4:*
  - *The project will develop the final design for the final phase of the reach scale project.*
  - *It is implementing Tier 1 strategies and complements the previous work in the reach.*
- *South Fork Upper Cavanaugh-Fobes:*
  - *The project is implementing Tier 1 actions.*
  - *Supports other restoration efforts in the area.*
  - *Important for providing habitat for anticipated brood stock from the Skookum hatchery.*
- *South Fork Camp 18:*
  - *The project is primarily implementing Tier 2 actions.*
  - *The project is a logical progression in the reach scale restoration.*
  - *Project is important for providing habitat in anticipation of returns from the brood stock.*
- *South Fork Homesteader Reach:*
  - *Good project; just not as timely as the others*
  - *Great potential as a demonstration project for integration of fish and farm interests; may result in more landowners supporting projects.*
- *Middle Fork Porter Creek Reach*
  - *There is uncertainty associated with the alluvial fan component of the project. No concerns with the right bank component.*
  - *Continuation of prior phased work.*

After discussing the project proposals, some CRT members adjusted their ranking and the new composite reviewed (table 2). While the re-ranking by some of the CRT members changed some of the values, the overall ranked order did not change.

Table 2.

Rank	*Project Name*	*Sum of Ranks*	*Value*
1	*North Fork Farmhouse Phase 4*	*27*	*73*
2	*South Fork Cavanaugh Fobes*	*29*	*71*
3	*South Fork Camp 18*	*48*	*52*
4	*Homesteader Reach*	*57*	*43*
5	*Middle Fork Porter Reach*	*65*	*35*

The CRT then discussed that potential funding available for the grant round would partially fund the third ranked project – South Fork Camp 18. The question was posed as to whether the 4th and 5th ranked projects should be listed as alternates in the event funds became available to fund alternates. The CRT discussed the Middle Fork Porter Reach project and indicated that with adjustments to the proposal that would eliminate or modify the component of the project that involved the alluvial fan, the project should be included as an

alternate. There was further discussion that if the Porter Reach project included the modifications, it would rank higher than the Homesteader Reach proposal.

The sponsor for the Middle Fork Porter Reach project indicated agreement with the condition the CRT was recommending be placed on the proposal (i.e., remove or modify the alluvial fan element of the proposal). With that agreement, the final ranking the CRT recommended to the WRIA 1 Management Team (Lead Entity), was modified as shown in Table 3.

Table 3.

Rank	*Project Name*	*Sponsor*
1	*North Fork Farmhouse Phase 4*	*Nooksack Tribe*
2	*South Fork Cavanaugh Fobes*	*Lummi Nation*
3	*South Fork Camp 18*	*Lummi Nation*
4	*Middle Fork Porter Reach*	*Lummi Nation*
5	*Homesteader Reach*	*Nooksack Tribe*

b. Identify your local technical review team (include expertise, names, and affiliations of members).

The membership roster of the WRIA 1 Combined Review Team is provided below Since the WRIA 1 Combined Review Team is a combined team of technical and community reviewers that rank projects as a single team, Table 4 includes both categories of reviewers.

Table 4 WRIA 1 Combined Review Team Roster- 2017

Technical Members		
Alan Chapman	*Lummi Nation Natural Resources*	*Fisheries*
Ned Currence	*Nooksack Tribe Natural Resources*	*Fisheries*
Leif Embertson	*Nooksack Salmon Enhancement Assn.*	*River Systems/Restoration Engineer*
Andy Ross	*Salix Environmental*	*Habitat/Hydrology*
Jeremy Gilman	*U.S. Forest Service*	*Fisheries*
Jim Helfield	*Western Washington University*	*Aquatic/Riparian Systems*
Joel Ingram	*Washington Fish and Wildlife Dept.*	*Fisheries/Permitting*
Bill House	*Washington Natural Resources Dept.*	*Aquatic Resources/Permitting*
John Thompson	*Whatcom Co. Public Works*	*Geomorphology*
Community Members		
Analiese Burns	*City of Bellingham*	*Wetlands*
Dave Beatty	*Citizen*	*RFEG; habitat*
Rich Bowers	*Whatcom Land Trust*	*Land Acquisition*
Pete Granger	*Citizen*	*Commercial fishing interest*
Jim Hansen	*Marine Resources Committee*	*Former Restoration Grant Manager*
Scott Hulse	*Flood Control Zone Advisory Committee*	*Engineering*
Chris Johnson	*Citizen*	*Sport fishing interest*
Greg Young	*City of Ferndale/Small Cities Rep.*	*Administration*

c. Explain how and when the SRFB Review Panel participated in your local process, if applicable.

Two members of the SRFB Review Panel (Jennifer O'Neil and Kelly Jorgensen) participated in our process for the 2017grant round as follows: (1) review of draft applications for restoration and design capital projects 2) attendance at the site visits and in-room presentations on June 8th, and (3) provide comments and feedback to individual sponsors using the standardized review panel comment forms. Project sponsors answered questions and received feedback during the site visits and in the early review comments provided by the SRFB Review Panel members after the site visits.

5. Local evaluation process and project lists. (Lead entity provide response)
   a. Explain how multi-year implementation plans or Habitat Work Schedules were used to develop project lists.

   The solicitation for project proposals states the proposed projects must be consistent with the local priorities for salmon recovery, which are the early Chinook populations in the geographic priority areas of the North, Middle, and South Forks. The technical basis for the local priorities are the habitat assessments and associated restoration strategies, the Project Development Matrices that shows priorities strategies by reach, the WRIA 1 Salmonid Recovery Plan and the WRIA 1 4-Year Project Plan. The assessments and work plan are multi-year restoration strategies that build on each other to identify the local priorities. In addition, consistent with the local strategy of sequencing and phasing restoration projects, the Letter of Intent form solicits information from potential sponsors on status of proposed projects and anticipated future phases. This multiple layer approach provides a consistency check for ensuring that all applications submitted are consistent with local priorities. All of the proposed projects are entered into HWS as part of the application process and are made public once they are officially submitted to RCO.

   b. Explain how finalized project lists address the comments of technical, citizen, and policy reviews.

   In addition to the discussions and revisions outlined under 4a, the Combined Review Team's final ranked project list was forwarded to the WRIA 1 Management Team with conditions as listed below, in addition to recognizing that project applications cannot be submitted without attached signed landowner acknowledgement forms:

   a. South Fork Camp 18 restoration project sponsor demonstrates there is full funding to implement the project by the contracting date outlined in RCO Manual 18 (approximately 6 months after SRFB funding decision in early December 2017).

   The explanation is that fully funding the South Fork Camp 18 restoration project requires the sponsor obtaining additional outside funding to complete the project because there are insufficient funds, as ranked, for the full grant request. Since the project is not scalable, additional funding sources will be required. The project sponsor should show the unfunded grant request portion of the budget

as local match in the application. The sponsor will seek additional funding prior to the project being implemented and will demonstrate to the WRIA 1 Lead Entity and RCO that funding has been obtained prior to contracting with the RCO. The rationale behind the recommended condition is that if the project proposal is funded by the SRFB and a contract negotiated prior to the additional funding being sought and acquired, there is less opportunity to move the funds to another priority ranked project if the additional funding cannot be secured.

b. *Modify the Middle Fork Porter Reach proposal to retain the east (right bank) channel restoration work as described in the proposal and remove the alluvial fan component of the application as proposed. The CRT discussed two options the sponsor might consider for the Porter alluvial fan component: (1) remove this element entirely from the proposal, or, (2) modify the proposal to only include removing a section of the right bank berm on Porter Creek downstream of the Mosquito Lake Road Bridge to reduce the channel constraint, allow for passive restoration fan habitat functions, and provide an open route for an avulsion that would allow Porter Creek to reoccupy its former channel. Prior to moving forward with implementation, the sponsor should meet with the Salmon Staff Team and Combined Review Team members to review the design. The reason for the recommended modification is the technical uncertainty associated with restoration work on and active alluvial fan and low benefit to Chinook of the fan restoration element as proposed.*

The final ranked list recommended by the CRT with the conditions above was approved by the WRIA 1 Management Team on August 2nd to forward as the WRIA 1 Lead Entity recommended habitat project list. There was some discussion at that meeting as to whether the landowner acknowledgement form would be available to submit with the final application on August 10th. The project sponsor notified the lead entity on August 9th that the landowner is not ready at this time to sign the landowner acknowledgement form and as a result, the proposal has been withdrawn from the 2017 grant round. The final project ranking, therefore, will be submitted as shown in Table 5; the ranked order does not change. The outcome of the withdrawal is that the Middle Fork Porter Reach, as recommended with modifications, is in the position of receiving partial funding and South Fork Homesteader Reach remains as an alternate.

#	Project	Sponsor	Project Type	Grant Request	Funding Source		
					SRFB 2017	PSAR 2015-2017	PSAR 2017-2019
1	**North Fork Farmhouse Ph 4**	Nooksack Tribe	Design	$120,430	*$120,430*		
2	**South Fork Cavanaugh-Fobes**	Lummi Nation	Design	$101,709	*$44,055*	*$57,654*	
3	**Middle Fork Porter Reach**	Lummi Nation	Restoration	$460,858	*$353,034*		*$29,405*
			Potential funding available		*$517,519*	*$57,654*	*$29,405*
4	South Fork Homesteader Reach	Nooksack Tribe	Design	$126,099	Alternate Project		

APPENDIX A

2017 WRIA 1 Ranking Session Documents

2016 Project Development Matrices

March 7, 2016

Level of Importance for Chinook
Tier 1
Tier 2

Restoration Strategies and Level of Importance: North Fork Nooksack River

	Pipeline	Rutsatz	Bell/ Kenny	Big Rock Canyon	Hatchery	Farmhouse	Maple Canyon	Maple Creek	Mahaffey Canyon	Below Boulder	Lone Tree	Wildcat/ Warnick	Canyon	Cornell	Horseshoe	Deadhorse
North Fork Reach Name (upstream RM)	38.3	40.6	42.9	43.7	46.7	49.4	49.8	50.6	51.1	52.3	53.3	54.8	55.8	57.8	61.9	65
North Fork Mainstem																
Construct/augment log jams to protect, encourage formation and growth of forested islands (especially upstream of tributary confluences)	Tier 2	Tier 2	Tier 2		Tier 1	Tier 1		Tier 1		Tier 1	Tier 1	Tier 1	Tier 2	Tier 2		Tier 1
Log jams to reconnect side channels (provide for flows during spawning/incubation, prevent major avulsion)					Tier 1	Tier 1		Tier 1		Tier 1	Tier 1	Tier 1	Tier 2	Tier 2		Tier 1
Logs/log jams to increase habitat quality in braids and side channels.	Tier 2	Tier 2	Tier 2		Tier 2	Tier 2	Tier 2	Tier 2		Tier 2	Tier 2	Tier 2	Tier 2	Tier 2		Tier 2
Reforest historic channel migration zone and 300' buffer	Tier 2	Tier 2	Tier 2		Tier 2	Tier 2		Tier 2		Tier 2	Tier 2	Tier 2	Tier 2	Tier 2		Tier 2
Promote floodplain forest encroachment on active channel area.	Tier 2	Tier 2	Tier 2		Tier 2	Tier 1		Tier 2		Tier 2	Tier 1	Tier 2	Tier 2	Tier 2		Tier 2
Promote channel-floodplain interaction to restore floodplain processes (e.g.wood recruitment, floodplain habitat formation)						Tier 2		Tier 2								
Acquire properties necessary to facilitate restoration	Tier 2	Tier 2	Tier 2		Tier 2*	Tier 2*		Tier 2*		Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*		
Acquire properties at risk of degradation to protect high quality habitat, habitat-forming processes			Tier 2		Tier 2			Tier 1		High		Tier 2		Tier 1		
Early chinook tribs (upstream to chinook extent)	***None***	***None***	***Kenney Cr***	***None***	***Racehorse***	***None***	***None***	***Maple***		***Boulder***	***Lone Tree Reach***	***McDonald***	***Canyon***	***Cornell, Thompson, Hedrick & Glacier***	***None***	***Boyd, Deadhorse***
Restore riparian areas			Tier 2		Tier 2			Tier 2		Tier 2	Tier 2	Tier 2	Tier 2			
Restore habitat (diversity, stability)					Tier 2			Tier 2		Tier 2		Tier 2	Tier 2			
Restore fish passage											Tier 2		Tier 1			
Acquire properties at risk of degradation to protect high quality habitat, habitat-forming processes or to					Tier 2								Tier 1	Tier 1 for Thompson		
Watershed																
Assess, treat forest roads	Tier 2**															
Address chronic sediment sources	Tier 2**															

*Acquisition for restoration may be a Tier 1 if the acquisition is facilitating a Tier 1 restoration strategy.

**Proponent of a project addressing this strategy must demonstrate benefits to Chinook.

2016 Project Development Matrices

March 7, 2016

Project Development Matrix

Level of Importance for Chinook
Tier 1
Tier 2

Restoration Strategies and Level of Importance: Middle Fork Nooksack River

	Middle Fork Reach Name (upstream RM)							
	Kulshan	Welcome	Porter	MF Canyon	Clearwater	Galbraith	Warm	Rankin
	1.5	3.1	5.2	7.2	9.4	11.7	14.5	17.4
Middle Fork Mainstem								
Restore passage at Middle Fork Diversion Dam					Tier 1			
Install lwd/log jams throughout the active channel to increase flow impedance.								
Install log jams along maturing forested channel margins to improve channel stability and slow migration	Tier 2	Tier 2	Tier 2					
Reforest historic migration zone and 300-foot riparian buffer	Tier 2	Tier 2	Tier 2					
Install lwd/log jams in unvegetated bar areas to provide sheltered areas that encourage vegetation encroachment	Tier 2	Tier 2	Tier 2					
Install log jams to increase the stability of forested islands and their associated side-channel habitats.	Tier 1	Tier 1	Tier 1					
Install log jams to reconnect side channels (provide for flows during spawning/ incubation)	Tier 1	Tier 1	Tier 1					
Install log jams to increase pool depth and frequency	Tier 1	Tier 1	Tier 2					
Install lwd/logjams to increase woody cover along channel edges								
Acquire functioning habitat at risk of degradation	Tier 2	Tier 2	Tier 2					
Acquire land to facilitate restoration	Tier 1*	Tier 1*	Tier 1*					
Restore floodplain wetlands								
Restore floodplain connectivity								
Early chinook tribs (upstream to chinook extent)	***Canyon Lake***	***None***	***Porter, Peat Bog***	***None***	***Clearwater***	***Galbraith***	***Wallace, Warm, Sisters***	***Ridley***
Improve low-flow connectivity with tributaries								
Restore tributary riparian areas	Tier 2	Tier 2	Tier 2	Tier 2				
Restore habitat (diversity/stability)								
Acquire functioning habitat at risk of degradation								
Watershed								
Assess, treat forest roads	Tier 2**							
Address chronic sediment sources	Tier 2**							

*Acquisition for restoration may be a Tier 1 if the acquisition is facilitating a Tier 1 restoration strategy.
**Proponent of a project addressing this strategy must demonstrate benefits to Chinook.

2016 Project Development Matrices

March 7, 2016

Project Development Matrix

Level of Importance for Chinook

Tier 1

Tier 2

Restoration Strategies and Level of Importance: South Fork Nooksack River

	South Fork Reach Name (upstream RM)														
	VanZandt	Todd	Hardscrabble	Standard	BNSF	Acme	Hutchinson	Saxon	Skookum	Dye's Canyon	Cavanaugh	Larson's Bridge	Lyman Pass	Elk Flats	Howard
	1.8	3.7	5.1	7.2	8.6	9.6	10.9	12.8	14.3	16.1	18	20.6	22	25.4	31
South Fork Mainstem															
Log jams to form deep complex pools: cool-water inflow areas	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1		Tier 1	Tier 1	Tier 2	Tier 2	Tier 2
Log jams to form deep complex pools: other areas	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 2	Tier 2	Tier 2
Replace riprap with wood bank structures	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2						
Reconnect and restore side-channels and restore historic channel pattern	Tier 2			Tier 2		Tier 2	Tier 2	Tier 2				Tier 2			
Setback or remove riprap embankments	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1						
Lower artificial levees to native bank elevations	Tier 1			Tier 1	Tier 1	Tier 1	Tier 1								
Relocate river-adjacent infrastructure outside the 100-year erosion hazard area	Tier 2	Tier 2	Tier 2	Tier 2	Tier 1	Tier 2	Tier 2	Tier 2	Tier 2					Tier 2	
Reforest historic channel migration zone and 300' buffer	Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*	Tier 2*		Tier 2*	Tier 2*	Tier 2*		
Remove invasive species (knotweed and reed canarygrass)							Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Reconnect floodplains	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2		Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Improve in-channel woody debris loading in floodplain channels	Tier 2						Tier 2	Tier 2							
Improve riparian conditions along floodplain channels (outside HMZ and 300')	Tier 2						Tier 2	Tier 2							
Acquire properties necessary to facilitate restoration	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2
Acquire properties at risk of degradation to protect high quality habitat, habitat-forming processes	Tier 2	Tier 2	Tier 2	Tier 2	Tier 2	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 2	Tier 2	Tier 2
Early chinook tribs (upstream to chinook extent)	***None***	***None***	***None***	***None***	***None***	***None***	***Hutchinson***	***None***	***Skookum***	***None***	***Cavanaugh***	***Fobes, Deer, Roaring, Plumbago***	***None***	***None***	***None***
Restore riparian areas							Tier 2		Tier 2		Tier 2	Tier 2			
Restore habitat (diversity, stability)							Tier 2								
Acquire properties at risk of degradation to protect high quality habitat, habitat-forming processes							Tier 2		Tier 2		Tier 2	Tier 2			
Watershed															
Assess, treat forest roads	Tier 2														
Address chronic sediment sources*** (South Fork adjacent large inputs)				Tier 2								Tier 2	Tier 2	Tier 2	Tier 2

*If project is establishing a buffer where there currently isn't one, the strategy is a Tier 1.
**Proponent of a project addressing this strategy must demonstrate benefits to Chinook.
***Strategy is to address the large sediment streamside contributions (not intended for small)

WRIA 1 Habitat Indicator Table for 2016 SRFB Grant Cycle

In WRIA 1, sponsors for SRFB and PSAR grant funds will use the table below to identify and quantify the habitat objectives relevant to their project proposals. Note: Not all projects will have all of the indicators listed.

CATEGORY	INDICATOR	Methods
Instream Habitat-Large Wood Restoration	**Number of pools formed per mile**	Overlay structure locations with wetted low-flow channel (from relevant aerial photo or field mapping; including primary and secondary channels within the active channel).
	Number of deep (>1m residual depth) primary[1] pools formed	Overlay structure locations with primary wetted low-flow channel (see above). Primary pools expected to form where structures engage the thalweg of the primary wetted channel; pools in secondary channels not counted as primary.
	Length of wood engaged at low flow and high flow	Length is the perimeter length of wood engaged at low or high flow. For low flow area: use low flow wetted edge field data and/or wetted channel from relevant aerial photo . For high flow area: use active channel from relevant aerial photo or field mapping and floodplain channels expected to be wetted at up to 2-year flows (i.e. floodplain channels available at rearing flows, see "wetted length of side channels" below).
	Number of cold-water refuges[2] (cooler pools, tributary confluence, groundwater seeps) formed or enhanced	Overlay Structure locations with documented seeps, cool water tributaries <2 Deg C cooler (FLIR or field data) in a reach with temperature as a limiting factor
	Stable log jams/mile	Number of proposed ELJs divided by project reach length.
	Number key large wood pieces/100 m channel (for smaller tributary and side channels)	
	Wetted length of side channels available during spawning and rearing flows	Wetted length of floodplain channels expected to be available at spawning and rearing flows (based on interpreted channel response). Spawning = available during low flow (perennially connected) and focus on

		side channels (i.e. separated from main channel by well-vegetated island). Rearing may also include other floodplain channels; benefit may be presented at low to 2- year flow. Reference proposed condition hydraulic model depth if available.
Fish Passage	Length of chinook habitat connected	Length of suitable habitat upstream of barrier.
	Number of barriers removed	Count of partial or complete barriers; note extent of passability in documentation if available.
Riparian Restoration	Area in and within 300 feet of Historic Migration Zone vegetated and on trajectory to PFC[3] includes forest island area.	
	For tributaries- the proportion of the site potential buffer vegetated and on trajectory to PFC	
Sediment Reduction	Length of forest road treated	
	Area of sediment point sources, such as stream-adjacent landslides, stabilized.	
Removal of hydromodifications	Edge habitat length by type (bar, bank[5], hydromodified). at low and high flows (question for sponsors will be how it is defined or will be defined) bank flow width, length of channel at low flow length of channel at mid flow and produce the ratio per unit length per river mile.	
	Area of floodplain/ erosion hazard area reconnected by hydromodification setback/removal	Also calculate % of HMZ reconnected
Acquisition	Out of the area protected, how much of the HMZ+300' is protected? How much the area is already protected? How much is threatened? How much of the land area has mature trees?	
	Barriers to implementation that will be addressed	
Design	Potential barriers to implementation in the design reach. How will design get you to the next stage for reach restoration (i.e., anticipated benefits)?	
	Current and potential habitat conditions characterized (need for restoration/ enhancement demonstrated)	

[1] Primary pools are defined as pools that span at least 50% of the low flow main channel width.

[2] Cold-water refuges are defined as areas that are at least 2°C cooler than ambient temperature.

[3] PFC is properly functioning conditions and, in this context, relates to ability of vegetation to provide large wood and shade the stream.

[4] Floodplain is defined as the mapped 100-year floodplain.

[5] Bank condition can be divided into forested and unforested.

Project Name or Number: _____

WRIA 1 SRFB/PSAR Project Review – Design Projects

Reviewer:	Date:	Project Strength (1=Strong technical arguments)
Project:	Sponsor:	

Reviewer Instructions:

This form includes three categories for considering proposals- Project Benefits, Timing, and Project Sequencing/Staging- and one category that is information only- Scaling of Project.

Under each of the categories are criteria to support your review. The criteria is supportive and is used by you to determine the strength of the technical arguments being made for the project benefits (1= Very Strong and 5 = Very Weak). Not all categories have multiple criteria or subcategories. There is a space to record the reasoning behind your rating. In reviewing all projects the key consideration for **all** project types is benefit to Nooksack early chinook- projects that have the greatest benefit to Nooksack early chinook are priorities. Projects with the greatest benefit to Chinook should demonstrate the strongest technical argument to support the stated habitat objectives.

Project Sponsor Instructions:

Project sponsors are required to complete the identified sections under each category. Your responses need to be clearly and succinctly written. It is the information that the Technical Review Team members will use to review your project and report out on the technical merits/strengths of your project in achieving habitat benefits. **Your response should clearly reference the section and subsection of the SRFB application where the information pertaining to the question is found. When referencing assessments, restoration strategies, Salmon Recovery Plan, etc., provide the citation including pages where the information can be found.** For example, you should cite the section and subsection of the SRFB Project Proposal where you identify the strategies that your project addresses (e.g., Tier 1 or Tier 2). If you are citing the WRIA 1 Salmonid Recovery Plan, a completed habitat assessment, or other technical document, you must include the citation and page number in your response so that the Technical Review Team member can locate the information you are referencing. Citing the location for the information will allow you to provide clear, concise, and succinct responses to the questions in this review form. Additionally, you must include a response to the scaling question at the end of the review form. Please consider both how you will scale if funding is limited and how you could scale the project if additional funds were available. As information, your worksite budget and overall budget information from your SRFB application will be attached to the review and ranking form. Therefore, it is in your best interest to make sure your budget information is complete

Project Name or Number: _____

Category - Project Benefits		
	Rating Weak ⟶ Strong (5) (1)	Comments/Rationale for Rating
Magnitude of Benefit Relative to Project Cost Overall Rating	○ ○ ○ ○ ○	
All Projects: To what extent does the project implement tier 1 actions? – (low to high depending on how many of the actions in the reach that are tier 1 are being implemented with the proposed project)	○ ○ ○ ○ ○	
To what extent are the tier 2 actions being implemented in the proposed project?	○ ○ ○ ○ ○	
Sponsor Completes: *Describe the extent to which you are implementing Tier 1 strategies as part of the proposed project. Describe the extent to which you are implementing Tier 2 strategies.*		
Technical Evaluation:		
Design Projects: (a) To what extent will design address the limiting factors and priority actions in the reach?	○ ○ ○ ○ ○	
(b) To what extent has the sponsor justified the design project cost relative to the tasks proposed? (e.g., does it include feasibility report, modeling of alternatives, is it a preliminary design or a final design).	○ ○ ○ ○ ○	

Project Name or Number: _____

Sponsor Completes: (a) *What are the habitat objectives? What are the primary limiting factor(s) and priority actions in the reach that the project will address?* (b) *Provide a justification of the design cost relative to tasks proposed.* (c) *Please attach your project budget*		
Technical Evaluation:		
Certainty of Benefit Overall Rating	○ ○ ○ ○ ○	
Design Projects: (a) To what extent has the sponsor identified the current design stage for the proposed project site?	○ ○ ○ ○ ○	
Sponsor Completes: (a) *What is the current stage of design for your project (e.g., conceptual, preliminary)?* (b) *What are the project deliverables for the proposed project, and if they are not consistent with Appendix D: Design and Restoration project Deliverables in RCO Manual 18 what are the differences?*		
Technical Evaluation:		

Category - Timing		
	Rating Low → High (5) (1)	Comments/Rationale for Rating
Immediacy of Benefit (a) In so far as design leads to construction, to what extent will the project quickly result in benefits to spring Chinook? (*Refer to attached Table 1 for guidance on immediacy of benefit*)	○ ○ ○ ○ ○	
	○ ○ ○ ○ ○	

Project Name or Number: _____

(b) To what extent has the sponsor provided information on the sequencing of the design to construction, and their anticipated timeline for obtaining funding for construction?		
Sponsor Completes: *What is the immediacy of benefit of your project to spring Chinook? If you divert from the Table 1 guidance, provide the basis for the diversion.* *Identify the current stage of design, the sequence from the current design stage to final design, permitting, and construction. Please include the anticipated timeline for obtaining funding for final design and construction.*		
Technical Evaluation:		
Lifespan of Project In so far as design leads to construction, to what extent will the project persist and provide key habitat functions while natural habitat forming and maintaining processes are recovering? *(Refer to attached Table 1 for guidance on lifespan of project)*	○ ○ ○ ○ ○	
Sponsor Completes: *What is the lifespan of your project? If you divert from the Table 1 guidance, provide the basis for the diversion.*		
Technical Evaluation:		

Category - Project Sequencing/Staging		
	Rating Weak (5) Strong (1)	Comments/Rationale for Rating
Linkage or Relationship to Other Projects Overall Rating	○ ○ ○ ○ ○	
All Projects: (a) To what extent is the proposed project part of a sequence for a reach	○ ○ ○ ○ ○	

Project Name or Number: _____

restoration strategy? (e.g., have other stages been funded? Is this stage needed for other stages to move forward?) (b) To what extent is this project in a reach that addresses similar strategies? To what degree does it positively interact with other projects in the reach?	○ ○ ○ ○ ○	
Sponsors Complete: *(a) How does this project relate to other projects in the reach?* (b) *To what degree does the project positively interact with other projects in the reach or the immediate area and how does it do that? Have other stages of this project been funded? What stages remain to be funded? Will that complete restoration in the reach?* (c) *Please attach a map that shows the proposed project in relation to other projects.*		
Technical Evaluation:		
Consequence of Delay/Urgency for the Project Overall Rating	○ ○ ○ ○ ○	
All Projects: (a) To what extent are recovery efforts impeded if the project s not funded?	○ ○ ○ ○ ○	
Sponsors Complete: *If the project is not funded, what opportunity is being lost? Is funding for this project a key step in a restoration strategy in the reach?*		
Technical Evaluation:		
Scaling of Project (This is not a ranked question. It is information in the event that projects need to be scaled to meet funding allocations.)		

Project Name or Number: _____

Sponsors Complete: Explain how your project can be scaled, and if it cannot be scaled, provide an explanation as to why.
Other Technical Review Comments:

Table 1. Typical response time, duration, variability of success, and probabilit of success for common restoration techniques (Beechie et al. 2003, modified from Roni et al. 2002).

Restoration type[a]	Specific action	Years to achieve response	Longevity of action (years)	Variability of success among projects	Probability of success
Reconnect habitats	Culverts	1-5	10-50+	Low	High
	Off channel	1-5	10-50+	Low	High
	Estuarine	5-20	10-50+	Moderate	Moderate to high
	Instream flows	1-5	10-50+	Low	High
Roads and land use	Road removal	5-20	Decades to centuries	Low	High
	Road alteration	5-20	Decades to centuries	Moderate	Moderate to high
	Change in land use	10+	Decades to centuries	Unknown	Unknown
Riparian restoration	Fencing	5-20	10-50+	Low	Moderate to high
	Riparian replanting	5-20	10-50+	Low	Moderate to high
	Rest-rotation or grazing strategy	5-20	10-50+	Moderate	Moderate
	Conifer conversion	10-100	Centuries	High	Low to moderate
Instream habitat restoration	Artificial log structures	1-5	5-20	High	Low to high[b]
	Natural LWD placement	1-5	5-20	High	Low to high[b]
	Artificial log jams	1-5	10-50+	Moderate	Low to high[b]
	Boulder placement	1-5	5-20	Moderate	Low to high[b]
	Gabions	1-5	10	Moderate	Low to high[b]
Nutrient enrichment	Carcass placement	1-5	Unknown	Low	Moderate to high
	Stream fertilization	1-5	Unknown	Moderate	Moderate to high
Habitat creation	Off channel	1-5	10-50+	High	Moderate
	Estuarine	5-10	10-50+	High	Low
	Instream	See various instream restoration techniques above			

[a] The first three categories of restoration (reconnect isolated habitats, roads and land use, and riparian restoration) are considered process-based or passive restoration, the last three (instream, nutrient enrichment, and habitat creation) are considered enhancement or active restoration.
[b] Depends on species and project design.

WRIA 1 SRFB/PSAR Project Review – Restoration Projects

Reviewer:	Date:	Project Strength (1=Very Strong and 5= Very Weak)
Project:	Sponsor:	

Reviewer Instructions:

This form includes three categories for considering proposals- Project Benefits, Timing, and Project Sequencing/Staging- and one category that is information only- Scaling of Project.

Under each of the categories are criteria to support your review. The criteria is supportive and is used by you to determine the strength of the technical arguments being made for the project benefits (1= Very Strong and 5 = Very Weak). Not all categories have multiple criteria or subcategories. There is a space to record the reasoning behind your rating. In reviewing all projects the key consideration for **all** project types is benefit to Nooksack early chinook- projects that have the greatest benefit to Nooksack early chinook are priorities. Projects with the greatest benefit to Chinook should demonstrate the strongest technical argument to support the stated habitat objectives.

Project Sponsor Instructions:

Project sponsors are required to complete the identified sections under each category. Your responses need to be clearly and succinctly written. It is the information that the Technical Review Team members will use to review your project and report out on the technical merits/strengths of your project in achieving habitat benefits. **Your response should clearly reference the section and subsection of the SRFB application where the information pertaining to the question is found. When referencing assessments, restoration strategies, Salmon Recovery Plan, etc., provide the citation including pages where the information can be found.** For example, you should cite the section and subsection of the SRFB Project Proposal where you identify the strategies that your project addresses (e.g., Tier 1 or Tier 2). If you are citing the WRIA 1 Salmonid Recovery Plan, a completed habitat assessment, or other technical document, you must include the citation and page number in your response so that the Technical Review Team member can locate the information you are referencing. Citing the location for the information will allow you to provide clear, concise, and succinct responses to the questions in this review form. Additionally, you must include a response to the scaling question at the end of the review form. Please consider both how you will scale if funding is limited and how you could scale the project if additional funds were available. As information, your worksite budget and overall budget information from your SRFB application will be attached to the review and ranking form. Therefore, it is in your best interest to make sure your budget information is complete.

Project Name or Number: _____

Category - Project Benefits		
	Rating Weak → Strong (5) (1)	Rationale for Rating
Magnitude of Benefit Relative to Project Cost Overall Rating	○ ○ ○ ○ ○	
All Projects: To what extent does the project implement tier 1 actions? – (low to high depending on how many of the actions in the reach that are tier 1 are being implemented with the proposed project)	○ ○ ○ ○ ○	
To what extent are the tier 2 actions being implemented in the proposed project?	○ ○ ○ ○ ○	
Sponsor Completes: *Describe the extent to which you are implementing Tier 1 strategies as part of the proposed project. Describe the extent to which you are implementing Tier 2 strategies.*		
Technical Evaluation:		
Restoration Projects: (a) How much habitat (expressed in habitat targets) will be created? (b) To what extent will the project address priority strategies in the reach? (c) To what degree has the sponsor justified the project cost relative to the amount of habitat created	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	
Sponsor Completes: *(a) Using the table of Habitat Target Indicators, quantify habitat created by implementing the project.* (b) *Using the project development matrices, identify the priority strategies in the reach that the project addresses. Identify the primary limiting factor(s) addressed by the project.* (c) *Provide a justification of the project cost in terms of habitat created.*		

Project Name or Number: _____

Technical Evaluation:		
Certainty of Benefit Overall Rating	○ ○ ○ ○ ○	
Restoration Projects: (a) To what extent has the sponsor demonstrated that the restoration methods proposed are proven to achieve the expected restoration outcomes? (b) To what degree, are the methods proposed effective?	○ ○ ○ ○ ○ ○ ○ ○ ○ ○	
Sponsor Completes: *(a) Are the restoration methods being used proven to achieve the anticipated habitat restoration, and why are they the best methods for the project site? Where have the restoration methods been used before (i.e., what other projects)? Has there been project effectiveness monitoring at those other sites that show the methods are effective?*		
Technical Evaluation:		

Category - Timing		
	Rating Weak (5) → Strong (1)	Rationale for Rating
Immediacy of Benefit To what extent will the project quickly result in benefits to spring Chinook? (*Refer to attached Table 1 for guidance on immediacy of benefit*)	○ ○ ○ ○ ○	
Sponsor Completes: *What is the immediacy of benefit of your project to spring Chinook? If you divert from the Table 1 guidance, provide the basis for the diversion.*		

Project Name or Number: _____

Technical Evaluation:		
Lifespan of Project To what extent will the project persist and provide key habitat functions while natural habitat forming and maintaining processes are recovering? *(Refer to attached Table 1 for guidance on lifespan of project)*	○ ○ ○ ○ ○	
Sponsor Completes: *What is the lifespan of your project? If you divert from the Table 1 guidance, provide the basis for the diversion.*		
Technical Evaluation:		

Category - Project Sequencing/Staging		
	Rating Weak → Strong (5) (1)	Rationale for Rating
Linkage or Relationship to Other Projects Overall Rating	○ ○ ○ ○ ○	
All Projects: (c) To what extent is the proposed project part of a sequence for a reach restoration strategy? (e.g., have other stages been funded? Is this stage needed for other stages to move forward?) (d) To what extent is this project in a reach that addresses similar strategies? To what degree does it positively interact with other projects in the reach?	○ ○ ○ ○ ○ ○ ○ ○ ○ ○	
Sponsors Complete: *(d) How does this project relate to other projects in the reach?* (e) *To what degree does the project positively interact with other projects in the reach or the immediate area and how does it do that? Have other stages of this project been funded? What stages remain to be funded? Will that complete restoration in the reach?* *(f) Please attach a map that shows the proposed project in relation to other projects.*		

Project Name or Number: _____

Technical Evaluation:

Consequence of Delay/Urgency for the Project Overall Rating	○ ○ ○ ○ ○	
All Projects: (b) To what extent are recovery efforts impeded if the project s not funded?	○ ○ ○ ○ ○	

Sponsors Complete: *If the project is not funded, what opportunity is being lost? Is funding for this project a key step in a restoration strategy in the reach?*
Technical Evaluation:

Scaling of Project (This is not a ranked question. It is information in the event that projects need to be scaled to meet funding allocations.)
Sponsors Complete: Explain how your project can be scaled, and if it cannot be scaled, provide an explanation as to why.

Other Technical Review Comments:

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[b] Depends on species and project design.

APPENDIX B

WRIA 1 Schedule for 2017 SRFB Grant Cycle

2017 WRIA 1 Salmon Recovery Funding Board Grant Cycle Schedule

Date	Action	Description	Who
March 31	Letters of Intent	**Sponsor completes required Letters of Intent due no later than March 31.**	**Sponsors**
April 1-April 15	Update WRIA 1 4-Year Work Plan List	Lead Entity submits memo to PSP to update WRIA 1 4-Year Work Plan to reflect any new proposed projects not currently identified in the 4-Year Work Plan.	Lead Entity
April 1- April 15	Provide PRISM number to sponsor	The Lead Entity uses Letter of Intent to set up HWS to obtain a PRISM number. Sponsors use the number provided to enter draft application in PRISM.	Lead Entity **Sponsors**
May 18	Draft applications due in PRISM	**Sponsors enter draft applications materials into PRISM** (Draft Application Checklist attached). **Draft applications reflect the level of detail and specificity necessary to understand the project's unique objectives, habitat indicators, metrics, and limiting factors. The project sponsor should not plan to make substantive changes to the draft application after this date except to address early review comments from the June 8 site visits or to adjust the project scope if requested so as to accommodate available funding or unanticipated changes such as withdrawal of landowner willingness.**	**Sponsors**
June 8	Project Presentations and Site Visits	RCO grant manager, SRFB Review Panel members, sponsors, and WRIA 1 CRT participate in pre-application review and site visits. **Sponsors are required to participate; Technical Reviewers are requested to participate; full WRIA 1 CRT is encouraged to participate.**	**Sponsors** RCO/SRFB **WRIA 1 CRT** **Technical Reviewers**
June 26	Receive and review SRFB Review Panel comments;	RCO grant manager provides review panel comment forms to lead entity and sponsors. **Lead entity distributes comments to WRIA 1 CRT. Sponsors address review panel comments** using track changes (see Manual 18).	Lead Entity **Sponsor** **WRIA 1 CRT**
July 10	Sponsor presentation of final proposal to technical reviewers	**Sponsors present final proposal to Technical Reviewers.** Lead Entity distributes links to **WRIA 1 CRT** for application review.	**Sponsors** Lead Entity **WRIA 1 CRT** **Technical Reviewers**
July 13	1. Summary Memo and Completed Evaluation Form for Technical and CRT review submitted to Lead Entity. 2. Final Application in PRISM	**Sponsors** provide the following information to Lead Entity for local reviewers: • Sponsor completed section of project evaluation form. • Memo that concisely summarizes and/or clarifies information or adjustments made to the final application since the June 8th site visits. • Overview map that shows the proposed project and relationship to all completed or planned projects in the reach. **Complete final application in PRISM by end of the day.**	**Sponsors** WRIA 1 CRT Technical Reviewers
July 18	Technical Reviewer Ranking Session	**Technical reviewers** provide evaluate project applications; outcomes for CRT	**Technical Reviewers**
July 25	WRIA 1 CRT Ranking	Lead Entity convenes **WRIA 1 CRT ranking session**	**WRIA 1 CRT**
Aug 2	Approve final ranked list	The WRIA 1 Watershed Management Board, or its Management Team, as the WRIA 1 Lead Entity reviews WRIA 1 CRT recommendation for 2017 SRFB Project List and approves ranked list.	Lead Entity
August 10	Applications Submitted	**Sponsors submit final applications in PRISM including attachments.**	**Sponsors**
August 14	Lead Entity submittals	**Lead entities submit draft ranked lists via PRISM online.**	Lead Entity