Lead Entity Ranking and Technical Panel Comments and Rating

Grays Harbor County LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 15	02-1440	N	Lewis County Conservation Dist	Lewis County Habitat Assessment Phase 2	165,750	29,250
	Description: This project will perform a minimum of 50 priority indexes on blockages. A Technical Advisory Committee (TAC) is in place to prioritize which culverts will be targeted. The TAC is made up of representatives from WDFW, USF&W, DNR, IAC, Lewis County Public Works, a small forest landowners association, Chehalis Confederated Tribe, and Grays Harbor County as the Lead Entity. This grant will continue to fill in data gaps in the Limiting Factors Analysis document. In addition, the top 10 rated barriers will have cost estimate designs completed.					
	Benefit to Salmon:	**High**	Although barriers are a problem throughout the state, they are likely more of an impact in the Chehalis Basin because of limited rearing habitat plus high road densities, suggestive of probable high barrier impacts.			
	Certainty of Success:	**High**	Straight-forward project that is a continuation of last year's project. Prioritizing 50 to further address by using quantity of habitat, quality of habitat, and landowner willingness.			
	Project Comments: To date, 238 barriers have been identified in the Skookumchuck, Newaukum, and SF Chehalis. This will focus their efforts on potential projects that have a high benefit to salmon.					
2 of 15	02-1437	C	The Nature Conservancy	Darlin Creek Acquisition and Restoration	492,783	87,000
	Description: The project area is within the Black River sub-basin of the Chehalis watershed, a high priority sub-basin. It is located between the Capitol State Forest and the Black River Unit of the Nisqually Wildlife Refuge. The area provides overwintering, spawning and rearing areas for coho salmon and cutthroat. The objectives are to: 1) permanently protect 217 acres of highly threatened riparian, wetland and floodplain habitat; 2) decommission more than one mile of roads; and 3) remove three culverts.					
	Benefit to Salmon:	**Med**	Restores and protects natural processes for primarily Coho rearing habitat. Will acquire a total of 217 acres of which 105 acres are wetlands and provides new access to 43 acres. Road decommissioning will eliminate three culverts. Habitat is relatively intact. Timber harvest has occurred in the upland area of the properties. The large culvert blocking fish access will open up more than 1 ¾ miles of habitat, and will improve hydrologic connectivity.			
	Certainty of Success:	**High**	Acquisition has a high certainty, and the land is under a single ownership.			
	Project Comments:					
3 of 15	02-1441	N	Mason Conservation Dist	Four Basin Fish Passage Assessment	340,000	85,517
	Description: This project will inventory, assess, and prioritize potential barriers to fish passage on anadromous streams in the Humptulips, Hoquiam, Wishkah, Wynoochee Subbasins and the Satsop West Fork WAU. This will include culverts, dams, dikes, railroad grades, etc. The project will determine which structures are presently restricting fish passage, and prioritize those structures for repair using WDFW barrier assessment and stream survey protocol. Passage barriers on both private and public lands will be identified. All data collected, including the database and GIS, will be distributed via hard copy and on CD-ROM to all interested parties.					
	Benefit to Salmon:	**High**	Smaller stream habitat is very important winter refuge habitat in this area. These are higher priority sub-basins according to their strategy, which is based upon fish use and basin size. They will also assess lateral habitat blockages (dikes and RR grades), which is a greatly needed assessment.			
	Certainty of Success:	**High**	This group has experience with this type of project.			
	Project Comments: If funded work with SRFB and WDFW staff to develop a detailed scope of work					
4 of 15	02-1445	R	Dept of Fish & Wildlife	Satsop Floodplain Restoration	250,000	849,800
	Description: This project consists of approximately 100 acres of Satsop River floodplain habitat that is negatively impaired by approximately 5200 linear feet of constructed dike and approximately 2500 linear feet of riprapped riverbank. A local committee has worked with the Army Corps to develop a Channel Migration Study, Preliminary Restoration Plan and has recently been notified of the Corps approval to fund this project under Section 206 Ecosystem Restoration.					
	Benefit to Salmon:	**High**	Restores a major impairment for multi-species, including two stocks that are depressed/critical (summer chinook and steelhead).			
	Certainty of Success:	**Med**	Dike removal is listed as optional, but it is vital for the restoration of natural processes. Proponents state that the goal is floodplain restoration. They believe that the dikes will be removed and that the ponds will be filled. Can't state with high certainty until after modeling and public input occurs.			
	Project Comments: WDFW will be responsible for project maintenance (riparian).					
5 of 15	02-1446	R	City of Centralia	Centralia Riparian Restoration Project	83,200	22,100
	Description: This riparian restoration project lies on the east shore between Chehalis River mile 61 and 62. Within the project reach Chinook salmon spawn, juvenile salmonids overwinter and bull trout, coho and chum salmon, steelhead and cutthroat trout migrate. A riparian zone 200' broad and one mile long will be restored from agricultural field to a mature forest through the planting of 13,000 trees and shrubs of 13 species native to the area. An existing off-channel rearing area will be enhanced through the planting of willows from local stock.					
	Benefit to Salmon:	**Med**	This area was identified in the TMDL as one needing riparian restoration for water temperature issues. It will also aid in bank erosion problems and will add more wood. Multi-species area.			
	Certainty of Success:	**Med**	Some general uncertainty associated with plantings near a large mainstem river.			
	Project Comments: Contains a strong public education component. There is potential for this project to be a showcase riparian restoration project for the basin.					

6 of 15	02-1447	R	Chehalis Basin FTF	Wynoochee #4 Barrier Correction	235,950	78,650

Description: This culvert replacement project is located on a tributary stream to the lower east bank of the Wynoochee River. This stream has over 3 miles of fish habitat above the culvert barrier and flows into the Wynoochee River 400 feet below the barrier. Coho salmon and cutthroat trout were observed below the barrier and none above. The proposed replacement for this culvert is a 15 ft. diameter round pipe. The round pipe is required because of the large amount of fill (27 ft.) from the road surface to the top of the new pipe.

Benefit to Salmon:	**High**	This project will mostly benefit Coho, and has a moderate PI (18). However, the PI was lowered because of a lack of survey and does not truly reflect the value of the project. It will open up about 3 miles of good habitat (riparian and LWD) for Coho and cutthroat. This type of habitat is greatly limited in this area.
Certainty of Success:	**High**	Applicant has had previous success with culvert replacements.

Project Comments:

7 of 15	02-1448	N	Mason Conservation Dist	WRIA 22 Fish Passage Project Development	60,000	11,000

Description: The MCD will utilize the WRIA 22 Fish Passage Inventory and habitat survey to prioritize man-made fish passage barriers and rank them into a matrix form that will create a top tier list of potential passage projects. These top tier projects will ultimately be reviewed and ranked by the WRIA 22 Salmon Habitat Recovery Technical and Community Advisory Groups. Landowners will be approached by the MCD to gain their support and preliminary project approval. The MCD will then organize and complete conceptual engineered project designs for the top tier projects and prepare them into ready to submit packages for future grant funding consideration.

Benefit to Salmon:	**Med**	Blockages are a big problem throughout this basin. This is rated medium rather than high because it only includes the Mason County portion and might not include culverts that should be a higher priority, but are not in this area.
Certainty of Success:	**Med**	Using established protocols. Concern that downstream culverts (outside of Mason County) might not be identified in time to avoid designing a culvert that has a blockage downstream.

Project Comments:

8 of 15	02-1449	R	Lewis County Public Works	Lucas Creek Barrier Removal	418,000	74,999

Description: This project is located in Lucas Creek, a tributary to the Newaukum River. The Newaukum River flows into the Chehalis River. An existing 82"x65" arch culvert with a slope of 4.1% is at Lucas Creek Road MP 5.173. This culvert poses a barrier under most flow conditions to migrating adult anadromous fish and a 100% barrier to juvenile upstream migration. A new precast concrete, three sided bridge; designed streambed gravel; grade controls; and streamside plantings are proposed to restore fish passage. Removal of the barrier will open up 2.8 miles of spawning habitat and rearing habitat. Salmonid species documented below the target barrier include: coho, steelhead, resident and sea run cutthroat, and rainbow trout.

Benefit to Salmon:	**Med**	Has a PI of 19 and benefits primarily coho. A little over 2.8 miles of habitat will be opened.
Certainty of Success:	**High**	Either a bridge or bottomless culvert would be used to replace current culvert on county road. Straightforward design.

Project Comments: Sponsor should look for ways to cut costs. Work with WDFW early in the design process.

9 of 15	02-1450	R	Chehalis Basin FTF	Wynoochee #1 Barrier Removal	255,000	85,000

Description: This project addresses a barrier culvert on the lower east bank of the Wynoochee River. This stream has over 2.5 miles of fish habitat above the culvert barrier with another ¾ miles of stream below the barrier. Coho salmon and cutthroat trout were observed below the culvert barrier. The existing culvert is a 4 ft. diameter concrete pipe, 145 ft long, elevated 14 inches at the outfall. It has a slope of over 1% and no streambed materials within the pipe. The proposed replacement for this culvert is a 15 ft. diameter round pipe.

Benefit to Salmon:	**Med**	Has a medium PI value (13) and primarily benefits coho. This type of habitat is limiting in this area. PI modified by 0.55 due to lack of survey. About 2.5 miles of habitat will be opened.
Certainty of Success:	**High**	Applicant has had previous success with culvert replacements.

Project Comments: Work with the WDFW early in the design process.

10 of 15	02-1438	R	Thurston County Roads/Trans	Waddell Creek Road Barrier Removal	38,600	18,400

Description: This project proposes to replace an existing, perched 36" diameter concrete culvert on Waddell Creek Road over Pants Creek, a secondary tributary to the Black River in western Thurston County. The project will improve habitat for coho, cutthroat and steelhead by replacing the existing culvert with an 11' diameter aluminized steel culvert countersunk 20% into the stream bed to provide more natural streambed characteristics and unimpeded passage for multiple species and life stages.

Benefit to Salmon:	**Med**	Has a PI of 14. The information submitted by the applicant after the Lead Entity presentation suggests that this is a partial barrier and will primarily benefit Coho.
Certainty of Success:	**Med**	Information provided by the applicant did not clearly describe how the project design or approach would achieve its stated objectives. Barrier replacement is relatively straightforward.

Project Comments: Cost effective project. Suggest developing preliminary design and consult with WDFW on fish passage criteria.

11 of 15	02-1451	R	Chehalis Basin FTF	Lantz Creek Barrier Removal	74,625	24,835

Description: This project addresses two fish barrier culverts on a tributary to the Wishkah River. The stream is 2.25 miles long and 4 feet in width. The first culvert is a total barrier for juveniles and a partial barrier for adults. It would be replaced with a 7' diameter steel round pipe, 40 ft. long, laid on 0% grade. The second culvert is located upstream 3000 feet, under a county road. It is a total barrier for adults and juveniles; a few adults reach this location but never move above the culvert, according to neighbors. The replacement would be a pipe arch 8' 7" wide and 5' 11" high.

Benefit to Salmon:	**Med**	Has a medium PI (17) and multi-species benefit (chum and coho). About a total of 2 miles of habitat will be opened.
Certainty of Success:	**Med**	Considering a bridge for the lower culvert.

Project Comments: Applicant provided information to clarify the gradient of the stream through the project reach. The applicant stated the maximum gradient of the stream is 2% through the lower section and about 1% in the section of stream above the upper culvert. The downstream pipe is perched at about 18 inches to two feet. The water surface elevation between the downstream and upstream end of the culvert is not the seven feet indirectly stated in the application. The applicant is proposing a bridge for the lower site and a limited number of grade controls.

12 of 15	02-1452	A	Heernett Environmental Found	Cozy Valley Cr Acquisition & Restoration	210,400	60,720
	Description: This project will acquire 50 acres Cozy Valley Creek wetland floodplain, establish a 2000 foot long by 100 foot wide riparian zone, add instream diversity using LWD and river rock, and place two properly sized squash culverts in the access road replacing the existing undersized round pipes. The project also includes a maintenance plan to address the continued invasion of non-native Reed Canary grass.					
	Benefit to Salmon: **Low** Single species benefit and acquisition of degraded habitat. Would prefer to see acquisition of good habitat, unless a particular property has special features. One advantage to the property is that it links better quality headwaters to Scatter Creek.					
	Certainty of Success: **Low** Requires successful extensive restoration. Priority restoration will be replacing blocking culverts and improving riparian. Will add LWD. Streams have been ditched with little substrate.					
	Project Comments:					
13 of 15	02-1453	R	Lewis County Public Works	Taylor Creek Barrier Removal	42,500	7,500
	Description: This project is located in Taylor Creek, a tributary to the Newaukum River which flows into the Chehalis River. An existing 10'x4' box culvert is at Hewitt Road. This culvert poses a minimum depth barrier to migrating adult anadromous fish 90% of the time, and a low flow barrier for juvenile and resident fish. Designed streambed gravel, grade controls, and streamside plantings are proposed to restore fish passage. Salmonid species documented below the target barrier include: coho, steelhead, resident and sea run cutthroat, and rainbow trout. This project will open 3.9 miles of habitat.					
	Benefit to Salmon: **Med** PI is about 22, opening 3.5 miles benefiting mostly Coho, and some steelhead and cutthroat in a high priority sub-basin. However, it is only a partial barrier and that decreases the benefit rating to medium.					
	Certainty of Success: **Low** Using weirs to backwater and increase water depth in box culvert. Not a permanent solution. Juvenile access during low flows may be in question.					
	Project Comments:					
14 of 15	02-1454	R	Lewis County Public Works	Deep Creek Barrier Removal	435,700	100,000
	Description: This project is located in Deep Creek, a tributary to Bunker Creek and the Chehalis River near Adna, Washington. The existing structure is a 100 percent velocity barrier to juvenile and resident salmonids and a 50 percent velocity barrier to adult anadromous fish (Fishman Environmental, April 2001). The objective is to restore fish passage by removing the existing 12-ft diameter barrier culvert and replacing it with a precast concrete bridge that will allow fish to migrate unimpeded. Removal of this barrier will open more than 12.4 miles of high quality spawning and rearing habitat. Steelhead, coho and cutthroat trout are known to use the stream below the barrier.					
	Benefit to Salmon: **Low** Limited species and a PI to the next barrier would be fairly low, about 10. Habitat quality is timberlands and relatively good.					
	Certainty of Success: **Med** Replacing culvert with bridge. Much upstream and downstream channel needed.					
	Project Comments: A downstream check was not conducted in conjunction with the upstream habitat assessment. It is possible that there are undocumented barriers downstream of the project site.					
15 of 15	02-1455	R	Lewis County Public Works	Berwick Creek Barrier Removal	188,400	47,000
	Description: Two retrofit projects are proposed on the main stem of Berwick Creek, which is a tributary to Dillenbaugh Creek which flows into the Chehalis River near Exit 77 of I-5. The lower and upper blockages are at Logan Hill Rd and Pattee Rd respectively. Depth and velocity conditions pose a 70% barrier for migrating adult and 100% barrier for juvenile and resident fish. Removal of these barrier conditions will open 3.72 miles of spawning and rearing habitat. Salmonid species documented below the lower blockage site include: coho, steelhead, resident and sea run cutthroat, and resident rainbow trout.					
	Benefit to Salmon: **Med** Will open about 3.7 miles (large quantity) of habitat for coho, steelhead, and cutthroat. Has wood and cover. Lower Berwick is degraded. Is a low priority watershed in the basin.					
	Certainty of Success: **Low** Would retrofit box culvert by installing rock weirs. Not a permanent solution.					
	Project Comments: Cost benefit ratio is low --better to replace culvert with a bridge.					

Lead Entity Ranking and Technical Panel Comments and Rating

Hood Canal Coor Council Inc

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 19	02-1560	R	Skokomish Indian Tribe	Skokomish River Nalley Is Levee Removal	197,600	57,000
	Description: This application represents Phase 2 of the SRFB funded Skokomish River Estuary restoration, removing agricultural dikes and a seawall on Nalley Island. The project will restore tidal enfluence to over 285 acres. ESA listed chinook, summer chum and bull trout are all found within this area. Historic evidence suggest ESA listed summer chum spawning may have extended into the floodplain from the river mouth upstream. This project will also benefit coho, winter steelhead, fall and winter chum, pinks, sea run cutthroat, and potentially sockeye.					
	Benefit to Salmon:	**High**	Provides over 285-acres of access to floodplain and estuarine areas for multiple species.			
	Certainty of Success:	**High**	The proponent has a willing landowner. The project includes funding for design and implementation. This is a cooperative effort to restore floodplain access. Phase II of project.			
	Project Comments: The project proposes to remove 6,600 feet of dike, which will provide substantial benefits to the estuarine area. Good monitoring strategy developed. To be combined with Phase 1 work from last year.					
2 of 19	02-1471	N	Point No Point Treaty Council	Historical & Contemp. Nearshore Habitats	53,000	9,400
	Description: This project will develop a framework for identifying and prioritizing protection and restoration actions in the Hood Canal nearshore using historical charts from the USCGS and contemporary habitat delineations. Comparative landscape and site-scale analyses of nearshore habitat change will be completed. Analysis results and on-site workshops, will determine human stressors that cause habitat change and natural processes that maintain habitat features. A report will describe analysis results, and recommend actions for specific nearshore habitats.					
	Benefit to Salmon:	**High**	This project will provide good information and fills a data gap identified in the Hood Canal Strategy. Proposed assessment will lead directly to projects through the incorporation of the information into the Salmon Recovery Area.			
	Certainty of Success:	**High**	The project uses existing information and collects new data to identify critical estuarine and shoreline fish habitats, and upland areas most important for maintaining habitat. The final product should develop the confidence of local decision makers, which is critical for implementation of future projects.			
	Project Comments: The proponent needs to ensure that this effort is not duplicative. They also need to ensure that they understand the environmental processes that created historic conditions and use that understanding to develop restoration projects. The assessment should include a conceptual model and cost benefit analysis of the proposed restoration activities. Assessment should assist in the development of tiered nearshore environments within their strategy.					
3 of 19	02-1475	R	Hood Canal SEG	Shine Estuary Restoration	313,095	205,612
	Description: This project will remove two side-by-side culverts and construct an opening to allow unrestricted tidal and stream flow to the upper estuary. Replacing these culverts with a bridge both removes a fish passage barrier to the 3300-acre watershed and restores 77 acres of estuary. The entire Shine shoreline/tideland and salt marsh provide 90 acres of pristine, Tier 1 rearing habitat for chum, Chinook, coho salmon, steelhead, and cutthroat trout. Approximately 11 acres of the estuary are mud flats, which are prime feeding grounds for all species of salmon smolts.					
	Benefit to Salmon:	**Med**	Benefits to salmonids are high in a Tier 4 watershed. The proposal would provide unrestricted tidal and stream flow into the upper 77-acre estuary.			
	Certainty of Success:	**High**	The project proponent has a high level of certainty to achieve full tidal flushing and restoring salt marsh as a result. Applicant intends to restore opening to historic conditions.			
	Project Comments: Applicant needs to develop a well-designed monitoring plan. Within the proposal, the proponent identifies monitoring objects but did not include a plan to achieve those objectives. The proponent has a 40% cost share.					
4 of 19	02-1482	C	Washington Trout	Dosewallips Estuary Restoration Ph 1	165,017	31,000
	Description: This project will undertake a variety of estuarine restoration measures at the Dosewallips estuary in Brinnon, WA, on Hood Canal. Phase 1 work will targe publicly owned lands held by State Parks and key privately owned lands, which constitute most of the tidally-influenced environment of the lower river. The project will include project identification, prioritization, design, implementation, and monitoring measures. Phase 1 will include distributary slough and estuarine marsh restoration.					
	Benefit to Salmon:	**High**	Project is located within a Tier 1 watershed and has been identified in the Strategy as a high priority.			
	Certainty of Success:	**Med**	The willingness of the landowners is currently in question. Revegetation methods are based on established protocols.			
	Project Comments: The applicant should work closely with State Parks and other landowners to ensure restoration activities are supported.					
5 of 19	02-1485	A	North Olympic Salmon Coalition	Chimacum Creek Estuary Riparian Acq	301,000	530,000
	Description: This project will acquire 15.3 acres of high quality forested riparian habitat in the Chimacum Creek Estuary. The project will protect one of the most undisturbed estuary riparian areas within Hood Canal and the Straits of Juan de Fuca and prevent incompatible development; degradation of coastal bluff, adjacent estuary wetlands and marine shoreline by protecting and preserving a significant block of steeply sloped forested headlands. The adjacent riparian habitat and key uplands along the ravine banks and marine headlands, platted at urban density, are rapidly developing.					
	Benefit to Salmon:	**Low**	The acquisition primarily focuses on steep banked uplands. Development potential is only on the top of the bluff. Development impacts to salmon would be low and should be addressed through adherence to regulations.			
	Certainty of Success:	**Med**	Certainty of success is based on the willingness of the landowners and strong connectivity to other protected lands.			
	Project Comments: The project appears to have a high cost per acre of habitat.					

6 of 19	02-1523	R	Hood Canal SEG	Ghost Net Removal	95,000	25,000

Description: This project involves the removal of derelict gill nets from nine (9) different locations in Hood Canal from the mouth of the Skokomish to the Hood Canal Bridge. These nets are currently damaging the marine ecosystem and threatening salmon survival as documented by underwater video footage and three (3) pilot net removals. The nets prioritized for removal are in locations known to be used by migrating salmon such as Dewatto Bay, Potlatch, and Tekin Point.

Benefit to Salmon:	**Med**	By removing the Ghost nets in the canal area, the project proponent will reduce fish mortality associated with these nets. However, it is not known exactly how significant this cause of mortality is.
Certainty of Success:	**High**	Certainty of success is based on the project proponent's ability to locate and remove these nets.

Project Comments: Project proponent has developed a monitoring and evaluation plan plus a quick response plan. Project type is not identified within the Strategy. Will this problem continue into the future, requiring additional funding?

7 of 19	02-1504	R	Hood Canal SEG	Duckabush River Estuary Restoration	233,750	41,250

Description: This project will open the north channel of the river to salmon access through construction of 500 feet of new channel and removal of fill. Redeveloping and deepening the 400 feet channel from existing riverbed to old riverbed will establish the alternate flow route. In the second part of the restoration, reconnection of an unnamed stream to the Duckabush system will be accomplished by installation of a 210' x 8' aluminum tube culvert. This project will utilize "hydrodynamic modeling" to determine the potential effects of altering the causeway openings.

Benefit to Salmon:	**Med**	Benefits are limited due to the restrictions in place by Highway 101. Benefits are derived from opening up a new channel and possibly reducing the predation from seals.
Certainty of Success:	**Med**	Concern over conceptual designs including the installation of an 8-foot culvert that is 210 feet long. Project does not commit to one of the two options.

Project Comments: The project design includes dredging out a new channel, which may quickly aggrade.

8 of 19	02-1525	C	Jefferson Land Trust	Dosewallips R Riparian Acq/Restoration	47,400	47,000

Description: Through acquisition of a conservation easement from a willing seller, Jefferson Land Trust will partner in the perpetual protection of over 400 feet and 8 acres of prime Dosewallips riparian and floodplain habitat. Restoration and replanting of a 50-100 foot riparian buffer zone on this property will provide one step in the reestablishment of natural riverine functions for that section of the Dosewallips River. Once established, the restoration will add plant diversity, increase wildlife habitat, and provide an additional natural source of large woody debris.

Benefit to Salmon:	**Med**	While conservation easements provide protection of riparian, benefits from this project will only be achieved once the area has been successfully reforested and the stream has been restored. Only 50% of the property is in the floodplain and the project size is quite small, 4-acres.
Certainty of Success:	**Med**	Certainty of success is based on the willingness of the landowner to sell.

Project Comments: Conservation easement needs to include acceptable land use practices consistent with protecting habitat.

9 of 19	02-1610	R	North Olympic Salmon Coalition	West Fork Chimacum Creek Restoration	85,500	16,000

Description: Approximately 1300 feet of low-gradient channelized Chimacum Creek on three parcels of agricultural and school district properties will be improved to increase channel complexity and provide wider floodplain margins. Creation of a 50-foot riparian buffer with large wood, conifers, and native plants will enhance habitat diversity, and restore shade cover. The project will improve rearing and overwinter habitat for ESA listed summer chum, as well as coho, cutthroat, and steelhead.

Benefit to Salmon:	**Med**	Project would provide some improvement in the habitat along Chimacum Creek, a Tier 3 watershed with listed Summer Chum. This reach, however, is compromised by development, and restoration access is limited to one side of the stream.
Certainty of Success:	**Low**	The project does not address natural forming processes consistent with historic habitat conditions.

Project Comments: The applicant has a good history of completing beneficial projects with community support within the Chimacum basin. The environmental education objectives are well intended and would be a positive activity for the school children.

10 of 19	02-1611	N	Northwest Watershed Institute	Tarboo Bay Critical Habitat Assessment	61,800	30,000

Description: The purpose of this project is to develop a protection strategy for potentially one of the most important nearshore habitats for juvenile rearing of summer chum and Chinook salmon in Hood Canal, both listed under ESA. The four step process will: 1) identify critical estuarine and shoreline fish habitats and upslope areas, 2) identify restoration opportunities based on a comparison of historic and existing conditions and changes in watershed function, 3) involve stakeholders in designing an expanded nature reserve system, 4) prioritize individual parcels for protection and/or for restoration.

Benefit to Salmon:	**Med**	Historical analysis of changes in fish use by species, habitat, and watershed processes will be used to identify primary limiting factors for juvenile salmonids in the estuary. The assessment will identify shoreline parcels that are a high priority for protection or restoration and have a direct link to the nearshore zone.
Certainty of Success:	**Med**	The project will result in a strategic plan with project partners to expand the marine protected area in a cost effective and ecologically sound manner. The project proponent has a moderate certainty of achieving the project objectives, because of expertise in the local area, and a high level of local support.

Project Comments:

11 of 19	02-1546	R	County of Jefferson	Little Oak Bay Restoration	250,000	1,000,000

Description: Jefferson County, in partnership with the U.S. Army Corps of Engineers, Jamestown S'Klallam Tribe, and the Hood Canal Coordinating Council is proposing to conduct the Little Oak Bay Lagoon Restoration Project, near Port Hadlock, WA. Historically, the project site was an intertidal (mudflat) area hydraulically connected to Port Townsend Bay. The project will be implemented under the Continuing Authorities Program, Section 1135 of the Water Resources Development Act of 1986. The applicant is seeking the programs required 25% cost share with this request.

Benefit to Salmon:	**Low**	The historical impacts to the site seem significant, but benefits to salmonids are difficult to determine in the absence of a design or restoration plan. The magnitude of the problem (fish stranding) has not been quantified, and the quality and quantity of fish use is anecdotal.
Certainty of Success:	**Low**	Impacts associated with channel dredging compromise project benefits, and ability to achieve objectives. Additional concerns involve project longevity, i.e. will the channel maintain open passage into Oak Bay? Net shore drift in the area may negate any benefits from the project.

Project Comments: There appears to be many unknowns within the budget therefore the budget needs to be better defined.

12 of 19	02-1548	R	Hood Canal SEG	Upper Tahuya River Restoration Project	56,000	130,000

Description: This project will replace two remaining fish passage barriers on the Tahuya River system in Hood Canal. Both culverts are under sized and partially block salmon from over-winter and summer habitat. These projects now exist with undersized 18-inch & 24-inch culverts, and will be replaced by 12.5-foot X 5.5-foot concrete box culverts. Collectively, this project will open up over 1759 acres of watershed and 227 acres of over-summer and winter habitat, and 11.7 miles of small streams to coho, steelhead and cutthroat.

Benefit to Salmon:	**Med**	This is the last in a series of passage barriers to the wetland complexes. The habitat upstream of the project areas appears to be in good condition. Benefit to salmonids is seasonal due to the subterranean base flow. The Lead Entity Strategy ranks this as the third of four priority actions within the watershed.
Certainty of Success:	**Med**	The project would replace a culvert to provide upstream passage. Needs to work with WDFW on the design of the channel gradient which is unclear from the application, and to reduce the total cost.

Project Comments:

13 of 19	02-1555	R	Kitsap County Public Works	Seabeck Creek Culvert Replacement	400,000	256,370

Description: This project will remove an existing 72-inch diameter reinforced concrete pipe and 5 grade control weirs at Seabeck Creek at Seabeck-Holly Road. A 75-foot span by 40-foot wide pre-stressed concrete girder bridge will be installed allowing for natural transport of streambed gravels and woody debris, which are now deposited above the culvert during high stream flows. Existing side bank rip-rap armament will be removed. LWD will be installed within the stream reach as required.

Benefit to Salmon:	**Low**	Project provides passage for multiple species. It is located in a Tier 4 watershed. There are flow issues within the watershed.
Certainty of Success:	**Low**	The sponsor has a good history of completing similar projects. Project may be cost prohibitive.

Project Comments:

14 of 19	02-1557	R	Jefferson Co Public Works	W Leland Valley Rd Culvert Replacement	233,410	41,190

Description: This project is located on West Leland Valley Road, within the Little Quilcene River drainage. Currently, an unnamed tributary flows under the road through a 30-inch diameter culvert. This project will replace the existing culvert with a 48-foot, single span, pile supported bridge. A 10-foot wide roughened stream channel will be reconstructed. The channel will meander around boulders and large woody debris. Rock sills constructed at about 20 foot intervals will establish the channel slope. The slopes will be re-vegetated to restore channel complexity.

Benefit to Salmon:	**Low**	Benefit to salmonids is low due to the project location. Project is located in a Tier 5 area (a tributary to a tributary of the Little Quilcene) and only opens up ½ mile of tributary habitat.
Certainty of Success:	**Low**	The proponent is proposing to replace a culvert with a bridge when the need is for grade control within the channel upstream and downstream of the crossing.

Project Comments: Project is located within a steep channel. Applicant should seek design assistance from WDFW for grade control assistance.

15 of 19	02-1558	R	Kitsap County Public Works	WF Stavis Creek Culvert Replacement	400,000	100,000

Description: This project entails the replacement of an existing corrugated metal pipe (CMP) culvert under Seabeck-Holly Rd. The culvert is designated as a complete barrier to coho salmon and trout and limits access upstream to significant channel and wetland habitat. The existing 36 inch culvert will be replaced with a 12 x 7 foot bottomless concrete box with natural channel material placed within it at the existing natural channel grade. It is located in the upper reaches of the Stavis Creek, a Tier III drainage.

Benefit to Salmon:	**Low**	Project is located in a low priority area and only will benefit one species. Tier 4 watershed and the project is the 4th of 5 priority actions in this watershed.
Certainty of Success:	**Med**	Project appears to be cost prohibitive.

Project Comments: It is unclear why the costs of this project increased 70% since 1999 when it was last proposed for funding?

16 of 19	02-1562	R	Hood Canal SEG	North Shore Habitat Restoration	80,000	163,676

Description: This barrier removal project entails replacing two of the last significant fish passage barriers occurring on the North Shore of Hood Canal and on the Union River. Both culverts, Cady Creek and McElhaney Creek are undersized and represent partial barriers to migrating salmon. A combination of 18 and 24 inch culverts on McElhaney Creek will be replaced with an 8 X 5.5 foot culvert while a 24 inch culvert on Cady Creek will be replaced with a 12 X 6.5 foot culvert. Cady Creek will also require 5 log weir installations downstream for property and volume control.

Benefit to Salmon:	**Low**	Projects are not located in priority areas (Tier 4). These projects will benefit multiple species. Culverts have relatively low PI's. Partial barriers.
Certainty of Success:	**Med**	The applicant has a good history of completing similar projects in the area. Involving WDFW engineering staff for technical assistance will improve likelihood of achieving project objectives.

Project Comments:

17 of 19	02-1613	R	Port Gamble S'Klallam Tribe	West Kitsap Riparian Restoration	68,000	17,000
	Description: This project will under-plant deciduous-dominated stands with conifer seedlings on public and private lands with existing protective easements along riparian corridors. The project will under-plant conifers in 30 acres of alder-dominated riparian forest, evaluate a range of planting densities, brush control strategies, and initial site conditions. Various volunteer conservation groups including Seabeck-Alki Salmon Team, Kitsap Trees, and Kitsap Stream Team will assist with the planting and brush control maintenance activities.					
	Benefit to Salmon:	**Low**	Benefit is low because the proposal selected low priority watersheds, and would only treat 1.2 miles.			
	Certainty of Success:	**Med**	Although the methods are proven, the site locations and sequence of implementation are unclear. It may be difficult for the proponent to meet objectives.			
	Project Comments: The proponent should consider focusing more intensive work in one or two watersheds. This is a long-term project that is beneficial for future healthy riparian development.					
18 of 19	02-1575	N	Hood Canal SEG	Marine Corridor Identification	140,000	210,000
	Description: The overall goal of this project is to better understand salmon behavior and residence timing, and movements in nearshore corridors of Hood Canal. Marine habitat characteristics will be inventoried and mapped by underwater side-scan technology. Acoustic cable arrays will be established based on geographical distribution of habitat types. Migration patterns of acoustically-tagged juvenile Chinook salmon will be monitored for two years, providing a new understanding fish utilization related to conditions of the nearshore, development, estuaries and other obstacles.					
	Benefit to Salmon:	**Low**	It is difficult to determine the benefit to salmon. The project proponent proposes to study hatchery raised juvenile Chinook. Hatchery fish have different behavioral patterns than wild fish, thus data gained from the study may not be useful.			
	Certainty of Success:	**Low**	Uncertainty exists with usefulness of data on hatchery fish, and its applicability to wild salmonids.			
	Project Comments: The use of hatchery fish may not lead to meaningful results. There are concerns over the methods proposed for implementation. The study design is unclear and may be inadequate in regards to geographic scale, which may skew information away from site-specific use of habitat by out-migrating salmon.					
19 of 19	02-1615	N	North Olympic Salmon Coalition	Macroinvertebrate Assessment Chimacum Cr	60,000	20,000
	Description: This project will complete a B-IBI (Benthic Index of Biological Integrity) by examining macro-invertebrate communities in Chimacum Creek. The B-IBI will be used in 2 ways: 1) Assess how the biology is responding to each type of restoration project within the basin, 2) The results can be integrated with Jefferson County Conservation District (JCCD) water quality tests to highlight troubled stream reaches. Upon completion, NOSC will have completed a data gap, identified future restoration needs, and determined the success of previous restoration projects.					
	Benefit to Salmon:	**Low**	Project is located in a Tier 3 watershed. Benefits to salmonids will be difficult to determine due to the lack of baseline information.			
	Certainty of Success:	**Low**	The project proponent will have the ability to determine presence and absence and possible population estimates of macroinvertebrates. However, they will not be able to correlate this data with restoration activities that have previously occurred in the watershed. Stormwater impacts on lower reaches will continue to impact the benthic communities thus reducing the usefulness of the data.			
	Project Comments:					

Lead Entity Ranking and Technical Panel Comments and Rating

Island County Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 3	02-1460	C	Dept of Fish & Wildlife	English Boom-Leque Island Acq & Res.	370,000	1,066,900

Description: This project will acquire and initiate restoration on 135 acres of dikes, tidal slough, salt marsh and freshwater wetlands. The project area encompasses the English Boom/Leque Island complex and continues the efforts of the WDFW and the Nature Conservancy to acquire and restore critical estuary habitat in the Stillaguamish River estuary. Acquisition and restoration of tidal slough/floodplain habitat is identified as a priority project in the Salmon Habitat Limiting Factors report for WRIA 6 and is a tier one nearshore project in the Island County Recovery Strategy.

Benefit to Salmon:	**High**	This acquisition and restoration project in a Tier I and II area under the Island County strategy would benefit multiple salmon species and address a limiting factor of estuarine rearing habitat for chinook.
Certainty of Success:	**Med**	Achieving benefits to salmon depends upon addressing both the Spartina infestation on the adjacent property and dike removal, which are not completely certain. The approach for the Spartina control, however, seems to be appropriate relying on a combination of techniques that have been successful elsewhere. The dike removal, which is necessary to fully account for the processes that form and alter habitat, will require future funding to complete engineering and design work and to implement the project.

Project Comments:

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
2 of 3	02-1578	A	Friends of Camano Island Parks	Kristoferson Creek Beaver Marsh	110,444	25,373

Description: This protect will protect up to 40 acres of beaver marsh and buffer on Kristoferson Creek through the purchase of conservation easements. Currently, this important Coho rearing habitat is intact, consisting of forest and wetlands, spread across the bottom 1/2 of 3 parcels. The center parcel is for sale and contains buildable uplands. The creek has been identified by the Camano Salmon Recovery Working Team and the Salmon TAG as a priority for salmon recovery.

Benefit to Salmon:	**Low**	The project benefits only one salmonid species (Coho) in a lower priority Tier III area under the Island County strategy and with limited production potential. The restoration work in the lower reach of Beaver Creek increases the potential benefit of this upstream reach but the lack of fish presence within the proposed conservation easement area limits the benefits to salmon.
Certainty of Success:	**Med**	Achieving the benefits to salmon depend in part on further restoration work in the creek and watershed as well as a plan for the upland portions of the property. The accessibility and quality of habitat (primarily water temperature with Kristofferson Lake upstream and open water wetland) on the project area is suspect. Protecting a sensitive beaver marsh that helps maintain downstream water quality and quantity along with the restoration work at the mouth to improve passage helps to increase the certainty of achieving some benefits.

Project Comments:

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
3 of 3	02-1459	R	Island Co Marine Res Comm	Maylor's Marsh Nearshore Restoration	407,200	210,500

Description: This project will accomplish three objectives to restore Oak Harbor's southeastern shoreline: 1. Remove and dispose of 2200 feet of failed bulkhead to improve tidal flushing; 2. Design and install one or more pilot 'forage fish spawning habitat' sites in order to maximize nearshore habitat improvements. This will include removing fill and regrading the beach to increase intertidal area with a more natural profile and substrate for forage fish; and, 3. Site monitoring of post-remedial habitat use by forage fish and salmon, as well as sediment stability by geologists.

Benefit to Salmon:	**Low**	The project is located in a Tier I high priority area of the Island County strategy; however, the direct benefits to salmon from this project are limited. The nearshore area has been significantly altered and has minimal habitat area for salmonid use. The assessment project is unlikely to lead to projects of high benefit.
Certainty of Success:	**Low**	The feasibility of restoration success and achieving significant benefits to salmon has a low certainty. A good deal of uncertainty also exists about the degree to which forage fish would utilize the area.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

King County LE WRIA 8

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 5	02-1622 A	King Co Water & Land Res	Issaquah Cr Log Cabin Reach Acquisition	708,671	995,925
	Description: This project seeks to acquire eight parcels (152 acres) along Issaquah Creek in the Middle Issaquah Creek Basin protecting mature forests, wetlands and a riparian corridor along 1-1/4 miles. The reach provides excellent rearing and spawning habitat including braided channels and pools with high water refugia for juvenile fish, clean spawning gravel, large woody debris and a diverse and sinuous riparian corridor. Issaquah Creek supports ESA-listed chinook, char (possibly ESA listed bull trout), sockeye, coho, kokanee, steelhead and cutthroat.				
	Benefit to Salmon: **High**	High quality habitat in core habitat priority stream system with multiple salmon species, although a fair amount of upland (60%) within purchase. A fair amount of public lands within the basin exists to connect with this acquisition and to protect watershed processes for the basin.			
	Certainty of Success: **High**	Acquisition has a high probability of protecting this important site, but some dependence on addressing development issues upstream related to flow and sedimentation.			
	Project Comments:				
2 of 5	02-1624 C	County of King	Cedar Rapids Floodplain	424,000	75,000
	Description: Building on a Round II SRFB acquisition grant, this combination project will acquire addtional land and complete a restoration design for the Cedar Rapids reach. The project will acquire ~5 acres to provide adequate space for overbank flows and off channel habitat, and develop a restoration plan on the 1/2 mile reach. The objective is to restore channel complexity and facilitate formation of off channel habitat, both are limiting factors on this reach. The restored reach will provide spawning and rearing habitat for chinook as well as coho, sockeye, steelhead, and cutthroat trout.				
	Benefit to Salmon: **Med**	The primary objective of this acquisition and restoration design project is to address the major limiting factor of channel complexity and connectivity for the mainstem Cedar River. The project will have secondary benefits that address the limiting factor of off-channel refuge and rearing habitat. The restoration will include 2100 lineal feet of levee removal and channel connectivity along the entire ½ mile length of the project area on both banks.			
	Certainty of Success: **High**	There is a high degree of confidence the applicant can achieve the acquisition and restoration design to address the major limiting factors within this core production area.			
	Project Comments:				
3 of 5	02-1550 C	County of King	Cedar/Taylor Creek Acq & Restoration	436,792	77,081
	Description: This project will acquire and restore stream and floodplain functions on three parcels along Taylor Creek, a tributary of the lower Cedar River. The project will provide spawning and rearing habitat for chinook, coho, sockeye, steelhead, and cutthroat trout. Project elements include: relocating 800 feet of stream away from a roadway, restoring 5 acres and creating 3 acres of floodplain wetlands and off-channel habitat, placing 175 pieces of large woody debris, and planting 30,000 native plants.				
	Benefit to Salmon: **Med**	The project is located in a core production area of the watershed and addresses some of the relevant watershed processes, but the highly degraded Taylor Creek system with many impacts from upstream limits potential benefits to salmon. The restoration work primarily benefits Coho, rather than chinook, which is the reason it's considered a core production area. Only 50% of parcel is in the floodplain.			
	Certainty of Success: **Med**	The highly degraded Taylor Creek system in an urbanized area reduces the certainty of achieving long-term benefits for salmon. More than Parcel A is needed to get the river away from the road.			
	Project Comments:				
4 of 5	02-1628 A	City of Redmond	Sammamish Valley "Redmond 74" Acq	150,000	1,195,000
	Description: The City of Redmond will purchase approximately 20 acres of open space on the floor of the Sammamish River valley for preservation and future salmon and wildlife habitat enhancement. Located on the east bank of the Sammamish River, near river mile 10, this is one of the last remaining opportunities for preservation of the substantial undeveloped Sammamish Valley open space within the City. The site offers opportunities to restore shallow side channel areas, lacking in Sammamish River.				
	Benefit to Salmon: **Low**	Limited potential for use by salmon in small stream, primarily a migratory corridor in the Sammamish River, significantly channelized and diked stream and not a high priority area for lead entity strategy.			
	Certainty of Success: **Low**	Significant development limits restoration potential and significant future restoration work would be required to achieve even limited salmon benefit.			
	Project Comments:				
5 of 5	02-1547 N	Mid-Puget Sound Fish Enh Grp	WRIA 8 Fish Passage Inventory	127,500	22,500
	Description: This project will complete a comprehensive inventory of fish passage structures and assess habitat in order to obtain priority index numbers for the prioritization of fish passage barriers on streams in WRIA 8. The assessment will incorporate data from previous fish passage inventories with new data to creat a WRIA 8 Fish Passage Inventory Database. GPS data will be collected and used to generate GIS maps showing site locations and barrier status of culverts. Private culverts will primarily be targeted, but all other structures will be identified and inventoried.				
	Benefit to Salmon: **Low**	New fish blockages identified will likely be higher in the watershed and likely in lower priority areas of the watershed.			
	Certainty of Success: **Med**	Fish passage would undoubtedly be improved with inventory work, but working with small private landowners lowers the certainty for implementing projects in the future and for achieving significant benefits for salmon recovery in the watershed. Uncertain that any higher priority projects would be identified beyond what King Co. DOT had already done.			
	Project Comments:				

Lead Entity Ranking and Technical Panel Comments and Rating

King County LE WRIA 9

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 5	02-1532 N	City of Seattle	Habitat Inventory & Utilization	300,000	90,000

Description: This project will conduct a comprehensive habitat inventory of the lower sub-watersheds and a targeted sampling program of juvenile salmonid habitat use and survival. These efforts will result in 1) a GIS database of habitat conditions and fish utilization and 2) scientific criteria that will be used to identify and prioritize habitat protection and restoration projects. Juvenile salmon habitat use and survival data can be used to increase the effectiveness of habitat restoration designs and target preservation actions.

Benefit to Salmon:	**Med**	This project fills data gaps that have been identified as a priority in their strategy. The project would collect and make available information that is crucial to understanding rearing habitat conditions in the lower watersheds. The project may also lead to improved restoration and protection strategies. The proposal, however, is lacking enough detail regarding data collection methods to determine benefits.
Certainty of Success:	**Med**	Study needs to be better designed to link habitat to fish use. It needs to identify and prioritize restoration and protection actions based on juvenile salmonid habitat use. Use of a steering committee comprised of local agency experts and the technical committee will help ensure project success.

Project Comments: Benefits will occur from implementation. Restoration and protection activities may be cost prohibitive due to the level of urbanization in much of the project area.

2 of 5	02-1601 A	City of Kent	Lower Green River Acquisition	975,085	230,000

Description: This project will acquire the Rosso Nursery, a Lower Green River property that totals 36.7 acres and 0.92 miles of undeveloped shoreline. The project will: 1) protect a large open space property located inside a long meander bend of the Lower Green River, 2) preserve the future opportunity to restore properly functioning salmonid habitat in a portion of the watershed that currently lacks such features, and 3) increase habitat connectivity among habitat restoration sites within this reach of the river.

Benefit to Salmon:	**Med**	The project will benefit many species including bull trout, Chinook, chum and Coho, however, restoring full habitat function is not possible in this highly urbanized area, due to diking, bank armoring and channel entrenchment. The project area is adjacent to other publicly owned parcels, with this connectivity comes additional project benefits.
Certainty of Success:	**Med**	Vegetative banks are 22 feet above the bank full state. Project objectives are to purchase the property and then complete some restoration. Restoration may include establishing off channel habitat and developing refugia for native species. This project has a medium certainty of achieving the stated objectives due to the lack of a restoration plan. If a plan was in place then the degree of certainty may increase. There are concerns over channel entrenchment, which may preclude over bank flows, which are necessary to maintain side channel habitat.

Project Comments: A management plan needs to be developed. Natural stream processes must not be restricted to protect the nursery. There are concerns regarding the cost effectiveness of the project.

3 of 5	02-1588 A	King County DNR & Parks	Kanaskat - Phase 3	596,190	105,210

Description: The purpose of this proposal is to protect 48 acres with 3,800 feet of river frontage on the Green River. Preserving these parcels would: protect premier chinook spawning and rearing habitat, expand the ecological influence of previous acquisitions and create a critical link between largeblocks of public open space, protect three perennial streams that provide important habitat features for salmon, facilitate future fish habitat restoration projects.

Benefit to Salmon:	**Med**	Project will benefit numerous species including Chinook, chum, Coho and steelhead. It is a continuation of other SRFB funded projects with in the same area. The project areas abut previously purchased conservation parcels. Residential development places these properties at risk, and the reach is a high priority for protection within the Strategy.
Certainty of Success:	**High**	Properties have been identified, however it is unclear if the project proponent has willing landowners, which is necessary to meet the project objectives. The applicant has had several other successful purchases in this reach recently.

Project Comments: Significant spawning occurs within this reach of the Green River. All project parcels are within the historic floodplain. Managing for a more normative hydrograph should be undertaken, in order to maximize benefits from this project.

4 of 5	02-1600 A	King County DNR & Parks	Newaukum Creek Threatened Best Places	267,100	50,000

Description: The purpose of this proposal is to acquire 4 parcels along Newaukum Creek (tributary to Green River) as part of a long-range acquisition and restoration project. These properties, which total 19.43 acres, are currently for sale. Preserving these parcels would protect the best chinook spawning and rearing habitat in the Newaukum Creek watershed and would allow the creek to function more naturally, free from development-related interferences.

Benefit to Salmon:	**Med - C**	Even though the project would benefit numerous species it appears that this project should be two different proposals, with the three contiguous parcels as one proposal, separate from the Walker parcel. It appears that the first three would be quite beneficial to native salmonids due to the intact riparian habitat and the high channel complexity. The canyon area is one of the largest spawning areas of this creek.
Certainty of Success:	**Med - C**	The project is dependant on whether or not the current landowners are actually willing sellers, which is necessary for the project to achieve its objectives.

Project Comments: It appears that the Walker property was added as an after thought. It does not have the same habitat characteristics as the three other parcels. The Last Best Places shows promise but success appears limited given increased land use in the area.

CONDITION:
The rating is conditional based on the applicant's willingness to delete the Walker parcel.

The project sponsor, King County, has agreed to remove the Walker property from the proposed properties for acquisition, and has adjusted the project budget accordingly. The total project cost is now $317,100. King County is now requesting a $267,100 SRFB grant and providing a $50,000 match.

5 of 5	02-1549	N	Mid-Puget Sound Fish Enh Grp	WRIA 9 Fish Passage Inventory	203,800	36,000
	Description: This project will complete a stream-based inventory of fish passage structures (with associated habitat assessment) in order to obtain priority index numbers for the prioritization of fish passage barriers within 10 prioritized basins in WRIA 9. GPS data will be collected and used to generate GIS maps showing site locations and barrier status of culverts. This project will build upon existing passage barrier inventories in WRIA 9. Private culverts will primarily be targeted, but all other structures will be identified and inventoried.					
	Benefit to Salmon:	**Med**	Benefit to salmon only will be achieved when the barriers are removed.			
	Certainty of Success:	**Med**	Emphasis is on how the information will be utilized and developed into a prioritized list of projects.			
	Project Comments: There are concerns that a barrier assessment and culvert removal will not benefit the top species in the Lead Entity strategy.					

Lead Entity Ranking and Technical Panel Comments and Rating

Kitsap County Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 13	02-1592	A	Great Peninsula Conservancy	Curley Creek Estuary Acquisition	294,500	52,000
	Description: This project will preserve the Curley Creek estuary, by acquiring the lands (20 acres) that comprise its entire shoreline, the surrounding steep slopes, and 6 adjacent forested upland parcels. The Curley/Salmonberry Creek system, one of the largest watersheds in south Kitsap, supports 5 species of salmonids: Chinook, coho, chum, steelhead and cutthroat. Its estuary is currently in a relatively natural state and in good condition, without any armoring or other development on its shoreline or slopes.					
	Benefit to Salmon:	**High**	Will protect shoreline and upland habitat for multiple species, but the much of the shoreline should be protected both through regulations and the natural high slopes. Multi-species benefit.			
	Certainty of Success:	**Med**	There is a constriction and fill at the mouth, downstream from the acquisition and it is unknown if it limits flushing.			
	Project Comments:					
2 of 13	02-1551	R	Kitsap County Public Works	Carpenter Creek/Appletree Creek Restore	618,905	1,609,493
	Description: This project (Phase 1) will replace the S. Kingston Rd. 6-foot wide box culvert culvert with a 70-foot single span bridge within the Carpenter Creek estuary near Kingston, WA. The undersized culvert prevents adequate flow between the salt marsh and estuary and is a partial fish barrier. The culvert has also created large, deep scour holes at both ends of the culvert, trapping juvenile salmonids at low tide, where they become easy prey. The project will reestablish natural tidal flow to approximately 26.2 acres of estuary/saltmarsh habitat.					
	Benefit to Salmon:	**High**	Multi-species benefited, but mostly chum and coho. Full restoration of natural processes. Addresses key habitat. Restores function to 26.2 acres of saltmarsh, a high quantity of habitat. Chinook use the estuarine area directly downstream of the project.			
	Certainty of Success:	**Med**	Replacement of culvert with bridge. There is a concern whether this is a sufficiently sized bridge.			
	Project Comments: Has a high match with ACOE money.					
3 of 13	02-1556	R	Mid-Puget Sound Fish Enh Grp	Barker Creek Estuary Culvert Replacement	417,000	83,000
	Description: This project will replace a 36-inch culvert installed in 1939 at the estuary. The proposed aluminum bottomless culvert would address: the high tidal flows which cause velocity barriers for juveniles; and the low flows which limit the natural process for ideal fish habitat at all stages. Barker Creek provides spawning and rearing habitats of Coho, Chum, Cutthroat, and Steelhead.					
	Benefit to Salmon:	**Med**	PI is high, near 30. Is last major blockage in watershed and is near mouth. This is a partial barrier dependent on tides. Partial restoration (really need a bridge) of natural processes. Will benefit passage for limited populations of primarily coho, chum, steelhead, and cutthroat. Will provide additional ecosystem benefits. Will restore about 1.5 to 2 acres of estuary (relatively small amount). Tier 3 watershed.			
	Certainty of Success:	**Med**	They are replacing with a larger culvert and not a bridge. Will result in about 80 feet of fill remaining in area that will reduce the certainty of estuarine restoration.			
	Project Comments:					
4 of 13	02-1567	R	Kitsap County Public Works	Chico Creek Bridge Installation	1,629,786	307,059
	Description: This restoration project will replace the box culverts with a bridge, remove the log weirs, establish a natural stream gradient, meander pattern and floodplain dimension. The riparian zone will be enhanced with native conifer tree species and shrub vegetation. Large woody debris will be placed within the channel to provide in-stream habitat, maintain the meander and stabilize bed material. This project will restore productive spawning habitat, provide high flow refuge and facilitate upstream migration to the other 16 miles of habitat in the upper watershed.					
	Benefit to Salmon:	**High**	Multi-species benefit to improve passage to a high quantity of habitat upstream. This is a partial barrier (full barrier at low flows). Very productive watershed for chum. The applicant believes the upstream habitat is good. The primary benefit is to address sediment transport problems (aggradation upstream and scour downstream). The replacement with a bridge will improve sediment transport, and the channel re-configuration might improve floodplain conditions and divert stream from heavily armored areas. This is the Lead Entity's number 1 action item for Chico Creek, a Tier 1 stream.			
	Certainty of Success:	**Med**	High certainty for the barrier correction. This project is rated as medium due to conceptual design and the general uncertainty of the excavation and new floodplain formation.			
	Project Comments: Recommend using WDFW technical assistance on design. Monitoring plan is overly extensive. Recommend channel monitoring only.					
5 of 13	02-1542	R	Port of Bremerton	Sinclair Inlet Estuary Restoration Ph 2	550,817	335,000
	Description: This project will restore natural wetland/estuarine conditions to benefit salmon along the shoreline of Sinclair Inlet. This request is for Phase 2 of the estuary restoration, which will remove the remainder of the fill material from the Port of Bremerton property, approximately 15,000 cubic yards. Phase 1, the subject of last years SRFB funded project, effects the cleanup of 1160 feet of the existing shoreline, restores 620+ feet of shoreline, and creates 1.7 acres of additional estuary. Together, these projects will restore 1,820 feet of shoreline and 4.2 acres of estuary.					
	Benefit to Salmon:	**Low**	Multi-species use, partial restoration of natural processes. Will restore about 2.5 acres of estuarine habitat (a relatively small amount). Will still have Highway #3 and other urban impacts that limit processes and habitat.			
	Certainty of Success:	**Med**	Some general uncertainty associated with marsh restoration. This is a part of a broader plan to restore estuarine habitat in Sinclair Inlet. The highway and urban impacts limit success. Phase 1 work funded last grant round has not started.			
	Project Comments: Continuation of a previously funded (3rd Round) SRFB project.					

6 of 13	02-1597	C	Mid-Puget Sound Fish Enh Grp	Grovers Creek Restoration	164,501	48,280

Description: This project will purchase and restore 17.5 acres of land bordering Grovers Creek. The project involves protecting an active beaver population and beaver dams, restoring large wood, and riparian conifers (primarily Sitka spruce, red cedar, and western hemlock) and associated native understory (salmonberry, sword fern, skunk cabbage). Grovers Creek has one of the largest adult coho escapements on the Kitsap Peninsula and supports an artificial chinook production program that contributes 3 million chinook to East Kitsap every year. This project is a community partnership between Mid Sound, The Suquamish Tribe, Miller Bay Citizens Action Group, and North Kitsap Trout Unlimited.

Benefit to Salmon:	**Med**	Mostly benefits chum, coho, and limited steelhead in this Tier 2 watershed. Coho are non-native or mixed origin, with considerable hatchery production. Channel length is 2000'.
Certainty of Success:	**Med**	The road acts as a dike. Property appears to be degraded. Has road/dike, riparian impacts. Will need restoration.

Project Comments: County has beaver dam removal policy. This will protect a beaver dam.

7 of 13	02-1565	R	Kitsap County Public Works	Harper Estuary Restoration	286,012	837,389

Description: This project entails replacing a culvert with a 60 foot bridge and removal or breaching of the old road berm to return tidal influence to a 1 acre estuary. Excess fill related to an informal boat launch will be removed and the launch will be reconfigured to reduce damage to nearshore habitat. In addition, piles of bricks dumped on the tidelands from an old brick factory will be removed. Harper Creek is salmon-bearing with excellent habitat that drains into the estuary.

Benefit to Salmon:	**Low**	Multi-species benefit, but very low quantity (4.5-acres estuarine and 2.2 freshwater wetland) of habitat will be restored. This addresses a partial blockage, but there is a total blockage shortly upstream. The road breaching seems an important part, but is considered optional. Partial restoration of natural processes. Fish use is low in Harper Creek, a Tier 5 watershed.
Certainty of Success:	**Low**	Although this first step is likely to be beneficial, the next two steps are needed for significant success.

Project Comments:

8 of 13	02-1587	C	Illahee Community Club	Illahee Estuary Acquisition/Restoration	587,928	135,000

Description: This project will acquire 5 acres consisting of wetlands, estuarine shoreline, tidelands, and the mouth of the Creek. This estuarine and adjacent nearshore area at the mouth of the creek is a key habitat area for juvenile salmonid rearing, particularly for chum salmon and sea-run cutthroat trout. The citizens group will partner with watershed recovery groups, including People for Puget Sound, Mid-Sound Fisheries Enhancement Group, the Suquamish tribe and Kitsap Trees to preserve and restore the natural wetland/estuarine ecological condition.

Benefit to Salmon:	**Low**	The acquisition of estuarine habitat will have a multi-species benefit, but a low quantity of habitat (4.9-acres).
Certainty of Success:	**Med**	Mostly in good condition, riprap in one area.

Project Comments: Does not seem to be cost effective.

9 of 13	02-1590	R	Pierce Co Conservation Dist	Purdy Creek Fish Passage Restoration	196,551	34,686

Description: This project will remove two barriers to fish passage in Purdy Creek, tributary to Henderson Bay. The first barrier, small twin culverts under a private driveway will be replaced with a prefabricated steel bridge. The second barrier, a culvert under a County Road (160th) shared by Pierce and Kitsap Counties, will be replaced with an aluminum arch culvert. Habitat Limiting Factors Report and SASSI indicate the presence of chum, coho, steelhead, and cutthroat in Purdy Creek.

Benefit to Salmon:	**Low**	The benefit of this project is fairly low in a Tier 4 watershed. It will open up about 1 mile of habitat to the next barrier. The next barrier seems like to be an easy fix, but another more significant barrier is 1.5 miles from project. At most, will benefit coho and possibly chum.
Certainty of Success:	**Med**	Quality of habitat isn't great. Some channelization and pastureland.

Project Comments:

10 of 13	02-1593	A	Kitsap County Parks and Rec	Illahee Watershed Acquisition Project	947,155	861,050

Description: This project will acquire 289 acres of undeveloped forest land for the preservation of watershed hydrological functions. The watershed includes mainstem Illahee Creek and two salmonid bearing tributaries (~ 2 miles of stream channel) old growth trees up to 700 years and four species of Salmon. The property connects to 350 acres of DNR land, comprising nearly the entire Illahee Creek watersheds and sub-watersheds. It is a nodal corridor for Coho, chum, Steelhead and cutthroat as well as critical contribution to downstream estuarine habitat for multiple species.

Benefit to Salmon:	**Med**	Limited benefit because of limited stocks (chum and coho) and lower level of overall fish production. Natural spawning. About 2 miles of channel length in a very small Tier 4 watershed.
Certainty of Success:	**Med**	Acquisition. Very low impact to land, such as wilderness area. Some park development in uplands.

Project Comments: Refugia update might increase this from Tier 4 to Tier 2.

11 of 13	02-1655	R	Pierce Co Conservation Dist	Dutcher Creek Fish Passage Restoration	275,196	48,564
	Description: This project corrects two fish passage barriers in Dutcher Creek. A fish ladder will be improved to meet WDFW criteria, and a culvert that is a complete barrier to salmon under Lackey Road will be replaced. The project will install a 100 foot long, 14 foot diameter aluminum pipe culvert. Additionally, 5 feet of spawning gravel and large wood (four stumps with root wads and four logs) will be placed in the stream to help create pools at the outlet.					
	Benefit to Salmon:	**Med**	Limited fish productivity, mostly coho and chum. However, the length of habitat to be opened will be medium (about 3450 meters from Lackey Road). Several additional barriers upstream of 3450 meters. Is a low priority Tier 4 watershed.			
	Certainty of Success:	**Low**	Applicant would not be taking out the dam and must maintain a fish ladder. Will probably require regular maintenance. Several concerns rose about efficacy of design, i.e. is formal concrete fishway needed? Does it meet current standards? Will it meet current standards? (EDF, pool volume) Why is there an outfall at fishway? Is this correcting the problem? No culvert info. Width? Outfall (2-feet + culvert slope). Looks like a potential for headcut/regrade...is this incorporated in design? How? May affect culvert design. Determine culvert ie's. Determine streambed material size. Determine rock-control material size. Verfy BFW's and culvert size. May require grade controls or longer in-stream work distance.			
	Project Comments:					
12 of 13	02-1534	N	County of Kitsap	E. Kitsap Shoreline Habitat Inventory	220,603	38,930
	Description: This project will use the Tidal Habitat Model to document presence of salmon habitat quality indicators, e.g., feeder bluffs, saltmarsh and eelgrass, riparian condition, forage-fish spawning habitat, overwater structures, shoreline armoring, exposure, substrate, etc. on 145 miles of East Kitsap Co. shorelines. This data will be used to establish a modeling approach to ID and prioritize conservation/restoration opportunities. Additionally, use patterns of juvenile salmonids will be documented. The information will be synthesized into a GIS database.					
	Benefit to Salmon:	**Med**	Addresses the most important habitat in their area. Ties in with refugia study that looked at freshwater and estuarine conditions. However, they are using data already available and may not add much new information. The fish usage information would help develop strategy improvements.			
	Certainty of Success:	**Low**	Not clear how this will lead to projects. Among the objectives is to provide planners with understanding of regional changes during recent decades. To relate changes through time, a historical analysis of the project area is needed. Development of this historical analysis isn't clearly mentioned in the proposal.			
	Project Comments:					
13 of 13	02-1541	N	Washington Biodiversity Trust	Eelgrass Assessment & Management Project	232,895	41,100
	Description: This project will: undertake the first complete, accurate inventory of eelgrass in all depths of water; Identify locations of healthy eelgrass meadows and compare them with known stream/estuarine salmon refugia; Select healthiest eelgrass populations according to best overall watershed habitat; Recommend management actions for those populations to address limiting factors issues; and Provide GIS overlay data to Kitsap and Pierce Counties to fill data gaps. In addition, WBT will implement a public awareness, stewardship, and monitoring program.					
	Benefit to Salmon:	**Low**	Eelgrass assessment should be part of a broader assessment. No indication that this will lead to projects.			
	Certainty of Success:	**Low**	This is only a one-year study. Project methods do not seem to have a way to look at possible causes of eelgrass changes over time unless there is a landscape scale analysis of other factors not included in the proposal.			
	Project Comments:					

Lead Entity Ranking and Technical Panel Comments and Rating

Klickitat County Lead Entity

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 1	02-1636 N	Yakama Nation	Assessment of the White Salmon Watershed	64,293	55,000

Description: The objectives of this Ecosystem Diagnosis and Treatment (EDT) assessment of the White Salmon Watershed will help develop and prioritize alternative riparian and in-stream habitat projects. This project does not assume or depend on the removal of Condit Dam, but it does attend to the high interest and likelihood for some sort of structural modification to or near the dam to reconnect the watershed to the anadromous fish runs of the Columbia River.

Benefit to Salmon:	**Med**	This is an EDT assessment of the Big White Salmon River in anticipation of removing Condit Dam. It would help define the condition of the habitat and where to direct restoration activities. It would use existing habitat data and local expertise to construct the model. It would benefit chinook, coho, steelhead, and bull trout.
Certainty of Success:	**Med**	Quite a bit of data is available on this river. It has been under study for decades in association with a FERC relicensing. A limiting factors analysis, conducted by the Conservation Commission, is nearing completion. The Yakama Tribe has significant experience in conducting EDT.

Project Comments: EDT approach appears necessary so that local citizens could get their input into what happens after the dam removal.

CONDITION:
A list of protection and restoration projects should result from this EDT and the study results should be used in the development of the lead entity strategy.

Lead Entity Ranking and Technical Panel Comments and Rating

Lower Columbia Fish Recov Bd

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 17	02-1506	R	Fish First	Doty Habitat Restoration Project	237,129	63,710

Description: This project will restore degraded salmonid spawning habitat, improve stream complexity and cover and restore rearing habitat on 4,240 feet of the Amboy to Pigeon Springs reach of Cedar Creek, a tributary of the North Fork of the Lewis River. This project will restore stream complexity by the installation of rock vanes, associated pools and spawning gravel and placement of over 60 rootwads. Over 700 feet of old stream channels will be connected to the stream and developed as year round rearing habitat.

Benefit to Salmon:	**High**	High Priority Tier #1. This project restores side-channel (700'), main channel (4240') and riparian habitat (2200') for multiple species and life stages in an important tributary to the Lewis River. Multiple Tier 1 & 2 stocks affected. Addresses high and medium benefit projects identified in the Lower Columbia strategy for the Lewis River and Cedar Creek specifically. Builds on several previous restoration projects in Cedar Creek (4 of 20 miles treated)– major public barriers have been dealt with, but do not know about potential barriers in tributaries.
Certainty of Success:	**Med**	Riparian work addresses some sediment delivery but only in a small area related to potential sources from the whole watershed. Instream restoration approach may not be effective, given the limited information provided on design and intent. There are lots of man-made structures, concern if this is needed and if they are sized and set appropriately. One other concern is placement of gravel and the potential for very short-term benefit due to high sediment delivery to the system, however is a low cost item related to the whole proposal. Previous restoration projects in the area showing increased spawner use. Smolt and adult escapement being monitored since 1997, however remaining physical monitoring appears to be solely observational. This may or may not capture the success of spawning gravels as related to fine sediment delivery unless they are significantly affected.

Project Comments: Related to strategy and sequencing of this project – the strategy mentions high priority projects for Cedar related to high fine sediment delivery from roads and multiple protection needs. Response to questions was that it is all in Forest & Fish and is therefore being dealt with.

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
2 of 17	02-1515	R	Underwood Conservation Dist	Upper Trout Creek Restoration	161,580	289,525

Description: The goals of the Upper Trout Creek Rehabilitation project are to restore riparian areas and channel stability to recover viable populations of wild steelhead. Objectives: (1) Restore riparian conifers along Upper Trout, Crater, Compass and Layout Creek to eight trees/acre > 31" in diameter (200 years). (2) Increase shade >80% (60 years). (3) Increase bank stability >80% (2 years). (4) Reduce bank full width to depth ratios <25 (2 years). (5) Increase in-stream large woody debris >100 pieces/river mile (1 year).

Benefit to Salmon:	**High**	Primary focus is on Wind River summer steelhead a Tier 1 stock. In the LCFRB strategy a project affecting a listed critical stock can receive a high benefit equal to a project that benefits multiple species, if that project is appropriate for that species and watershed. Riparian treatments provide long-term benefits by addressing water temperature, sediment delivery and channel condition limiting factors. Channel reconfiguration and LWD restore more stable configuration in the short-term. Builds on 10 years of restoration in this system.
Certainty of Success:	**Med**	Applicant has been using similar design techniques in the Wind River for the last 10 years. This is a comprehensive approach to the watershed. Preliminary results show increases in survival of juvenile steelhead. Haven't seen changes in water temperature, but recovery trajectory is long-term for this factor. Lots of man-made structures, with a poorly explained cost estimate.

Project Comments: Applicant provided expected recovery timelines for each aspect of the project and has an extensive monitoring program in place.

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
3 of 17	02-1498	R	County of Cowlitz	Abernathy Creek Riparian Restoration	247,131	123,468

Description: This project will restore 84 acres (2.5 miles of shoreline) of riparian habitat along Abernathy Creek with the assistance of Cowlitz County Corrections work crews. Abernathy Creek, a tributary of the Columbia River, provides critical spawning and rearing habitat for ESA-listed Chinook and chum (Threatened), and for coho (Candidate), steelhead and sea-run cutthroat. The three-year project involves weed removal, fencing, planting native trees and shrubs (including conifers) in the first year. Maintenance and monitoring will be the focus of the second two years.

Benefit to Salmon:	**Med**	This project primarily benefits multiple Tier 2, 3 and 4 stocks, but may also have some benefit to Tier 1 Chum stock that utilize the junction of the tributary with the Columbia River. Treats 2 miles of shoreline. Proposed treatment directed toward high priority limiting factors (riparian, water quality, sediment delivery) for the watershed, but may not be tackling some of the larger problems such as the location and affect of road and railroad grades and upstream limiting factors such as high sediment delivery.
Certainty of Success:	**Med**	Conservation easements are already purchased on the treated properties and Cowlitz County is establishing an endowment fund for maintenance and monitoring. Other streamside areas of the creek have had previous easements purchased providing protection to a large part of the mainstream corridor. Cattle have been removed from the site. Applicant has experience in this type of treatment.

Project Comments: Concerns are: 1) that the site may require additional restoration in the future due to the lack of structural complexity in the stream and roads/railroads adjacent to the area; 2) high sediment delivery from the upper watershed; however treating riparian condition gets to root of some of the problem.

4 of 17	02-1521	N	Lower Columbia River FEG	Watershed Nutrient Assessment	100,000	25,000

Description: This project will conduct two assessments related to possible nutrient enhancement of major salmon-producing watersheds in southwest Washington. The current levels of nutrients will be assesssed at selected sites in the Cowlitz, Kalama, Lewis, Washougal, and Wind River watersheds. Second, nutrient enrichment studies in replicated artificial stream mesocosms will be done to determine the feasibility of such applications in these watersheds.

Benefit to Salmon:	**Med**	Will identify where nutrient enhancement is needed and the best method to deliver the nutrients. Also includes a study to quantify potential impacts on the aquatic community and water quality from various levels and types of nutrient inputs.
Certainty of Success:	**Low**	Scale of study is large. One-year data cycle may not be enough for correct findings. Concerned about length of study being able to provide the necessary answers to this question that enables effective treatment. Also concerned about achieving the numbers of fish needed to sustain long-term nutrient supply if carcasses are determined to be the most appropriate nutrient application method.

Project Comments:

5 of 17	02-1518	N	Lower Columbia River FEG	Regional Culvert Inventory	264,580	66,300

Description: The proposed Regional Culvert Assessment project is a collaborative effort between multiple private landowners, Clark Conservation District, Cowlitz/Wahkiakum Conservation District, Clark County, WDFW, and Lower Columbia Fish Enhancement Group. The inventory effort will review previous culvert assessments, identify data gaps, assess habitat, and provide preliminary designs and cost estimates for the highest priority sites.

Benefit to Salmon:	**High**	Providing access is the # 1 priority identified in the LCFRB strategy. Has potential to benefit multiple stocks and fill data gaps for future barrier replacements. Several watershed analyses have been completed that will provide additional watershed condition information for context. Stated they will use WDFW's SSHEAR protocols.
Certainty of Success:	**High**	Using WDFW's protocols. Walking stream. REFG has the ability to inventory on private lands, which allows a comprehensive survey that has been lacking in the past. Initially concerned about scope of project – how many can they get done in one year and will this provide high benefit if so much else is still unknown. They believe they have over 1500 potential barriers to inventory. LCFRB did say they would target sub-watersheds and complete them prior to moving on so they will know the scope of the problem for that area.

Project Comments:

6 of 17	02-1499	R	Lower Columbia River FEG	Yanzik Off-Channel Rearing Pond	29,750	5,250

Description: This project would create an off channel rearing pond, restore floodplain functions, and restore riparian conditions on the north side of the Washougal River road at RM 7. This project would benefit ESA listed summer and winter steelhead, ESA listed chinook salmon, cutthroat trout, and ESA candidate coho salmon. The proposed rearing pond would contain approximately 90,000 cubic feet of new rearing habitat that would be linked to the Washougal via a short, low gradient and easily accessible stream channel.

Benefit to Salmon:	**Med**	The benefit would be increased off-channel rearing habitat for multiple species, although primarily targeted at coho and cutthroat, but potentially Chinook as well. Washougal has limited habitats of this type due to natural geomorphic conditions and the presence of a major road bisecting the floodplain. In addition, the project will restore some floodplain function and riparian conditions in the project area. However, some of the beneficial conditions present are related to an artificial control provided by the road and culvert, which could be altered in the future affecting the long-term benefits of the project. Sponsor stated that the road couldn't be moved due to presence of homes lining the road and river.
Certainty of Success:	**Med**	Concerns over whether the culvert will be a partial barrier once the pond is built leading to potential stranding. Applicant has successfully used this technique elsewhere and is seeing good fish utilization in the constructed ponds. Presence of groundwater source increases the certainty of maintaining a functional pond with cool water. Builds on previous acquisition effort.

Project Comments:

7 of 17	02-1514	R	Lower Columbia River FEG	Little Washougal River Restoration	335,000	65,000

Description: The focus of this proposal is to restore riparian and in-stream habitat conditions needed by salmonids in order to successfully spawn and rear in the lower Little Washougal River. The stream contains summer and winter steelhead, chinook and coho salmon, and resident and sea-run cutthroat trout. These objectives will be met by employing the use of rock J-vanes and large wood structures to stabilize the stream banks temporarily (<50 years) until the restored riparian vegetation matures.

Benefit to Salmon:	**Med**	Not immediate floodplain restoration. Large project areas in priority stream benefiting multiple Tier 1 & 2 stocks. Unstable channel area due to lack of wood and high sediment delivery, project plans to create more stable channel pattern that would improve habitat stability, provide later channel stability to allow riparian area to become established. Establish riparian area in effort to provide long-term natural channel stability and mitigate sediment delivery.
Certainty of Success:	**Low**	Lots of man-made structures (15 J-hooks, 20 log weirs, LWD, boulder clusters). Low certainty rating due to lack of information on design methods and stated use of only 20 log weir, 15 rock weirs and an additional 15 key pieces of LWD in 7,500 feet of stream. This is approximately one structure every 214 feet - which may not be appropriate or adequate for this low gradient stream. Good monitoring plan outlined.

Project Comments: May provide restoration over time. This project may help promote the return of chinook to the system, rock structures tend to discourage chinook.

8 of 17	02-1443	R	City of Kelso	Coweeman River Riparian Restoration	10,692	18,680

Description: This three-year project will restore ¼ mile (approximately 7 acres) of treeless riparian habitat along the banks of the Coweeman River, upstream of the diked segments that run under I-5 and through urban Kelso. In its first year, this three-year project will focus on weed removal and planting trees and shrubs in a riparian strip 125-180 feet in width, bordered by a large wetland south of the river. Monitoring and maintenance will take place during the second two years. The Coweeman provides habitat for winter steelhead of native stock origin and wild production.

Benefit to Salmon:	**Med**	Very small area to be treated in large degraded stretch, only one side of the river, mostly upland. Addresses an identified limiting factor in a small way. However, may be the beginning of a good effort in an important tributary.
Certainty of Success:	**Med**	Applicant can do a good job on a limited site. Restoration plan is adequate and has a good chance of reestablishing riparian vegetation in this one area. No instream work.

Project Comments:

9 of 17	02-1517	N	Lower Columbia River FEG	Lower Washougal Restoration Feasibility	34,500	10,000
	Description: This project is located in the lower two miles of the Washougal River watershed. The objective of the study is to answer questions raised by the local governments concerning the benefits and risk of restoring the lower Washougal River as functional salmon habitat. The results of this study would be used by the City of Camas, City of Washougal, Lower Columbia Fish Recovery Board, WDFW, Georgia Pacific, and Lower Columbia Fish Enhancement Group to craft a restoration plan that would benefit multiple ESA listed species.					
	Benefit to Salmon:	**Med**	Project area is used by Tier 1 stock; other SRFB acquisitions have been funded near this area.			
	Certainty of Success:	**Low**	Methods may not lead to all the answers they need to address risk and benefit. Sponsor stated that they wanted to evaluate the risk of channel avulsion related to proposed restoration, but there is no hydrologic analysis or modeling included in the methods in order to adequately answer this question.			
	Project Comments:					
10 of 17	02-1510	N	Grays River Habitat Enh Dist	Grays River Topo and Geomorphic Survey	143,000	40,000
	Description: The Survey will consist of developing a topographic map, together with noted fluvial geomorphic features from the mouth to approximately RM 12 on the Grays River. The plan would develop and identify opportunities to disrupt the present river instability cycle with on-the-ground projects that will stabilize the river in a manner that emphasizes natural function and habitat opportunities. The Grays River supports one of two remaining distinct chum salmon genetic pools in the Lower Columbia.					
	Benefit to Salmon:	**Med**	Channel reach is continually changing under current regime. May need to wait for actions in the upper watershed before proposing modification in this reach.			
	Certainty of Success:	**Low**	High cost - relative to the utility of the information. Topographic information in a highly dynamic area may have a very short shelf-life.			
	Project Comments: This project would best be done after the upper watershed conditions are improved. The project has strong community support.					
11 of 17	02-1520	R	Wahkiakum Conservation Dist	Hendrickson Creek Stream Restoration	66,389	11,716
	Description: Located in the Deep River watershed, the Hendrickson Creek Restoration Project will reconnect a channelized, ditched stream with its original stream channel. The project will create 1,800 feet of off-channel habitat and restore 1,400 feet of natural stream channel. It will also replace 3 culverts with a bridge, add channel complexity, create off-channel and rearing habitat, reduce soil erosion, and restore riparian vegetation. These creeks provide habitat for chum, chinook, coho, steelhead, and cutthroat trout.					
	Benefit to Salmon:	**Med**	Out of ditch into historic channel. Primarily rearing habitat.			
	Certainty of Success:	**Med**	It appears that other factors may need to be addressed prior to this project or incorporated into this design. Recommend the sponsor work with WDFW to insure all design considerations are included in the final design.			
	Project Comments:					
12 of 17	02-1512	R	Grays River Habitat Enh Dist	Grays River Water District Bar	83,500	15,000
	Description: The Grays River is presently suffering from an excessive sediment load caused by headwater conditions, destabilizing the river in a number of areas. One of those areas is in the vicinity of the Western Wahkiakum Water District's new well field. The proposed work will establish a stabilization structure in the form of a 20-foot bankfull bench with a series of stone/wood vanes to reduce near bank shear stress and provide for the establishment of a stabilizing riparian vegetation community through the affected reach.					
	Benefit to Salmon:	**Med**	Project located in a watershed that supports Tier 1 chum, and Tier 2 chinook. Project aims to reduce sediment delivery at a high cut bank in a high dynamic area of the Grays River. Fine and coarse sediments along with degraded channel conditions are identified as limiting factors for this watershed, but the strategy recommends starting with road, harvest and slope failure areas farther up in the watershed.			
	Certainty of Success:	**Low**	The primary purpose of the project appears to be solely for the protection of infrastructure. To truly solve this problem a larger reach level design is recommended.			
	Project Comments:					
13 of 17	02-1519	R	Wahkiakum County Public Works	Duck Creek Bridge	108,757	36,000
	Description: Duck Creek, a tributary to the Elochoman River at river mile 8, has been identified with access problems by the Limiting Factors Analysis for WRIA 25. The primary objective of this project is to eliminate the juvenile salmonid access problem to the upper reaches of the creek by replacing a partial barrier culvert with a bridge. The industrial forest landowner has indicated to the project sponsor that they will be addressing their partial barrier culverts, upstream of this project, in the near future.					
	Benefit to Salmon:	**Med**	Good to open up system. Fish passage is a priority-limiting factor in LCFRB strategy. Benefit is primarily for rearing access of Tier 2 stocks, but the upper culverts have potential to fail affecting downstream spawning and rearing habitat. Additional barriers upstream require forest landowner to mitigate.			
	Certainty of Success:	**Med - C**	Bridge span may be small and changing it will most likely increase the cost. Channel may be over-steepened. This will cut the channel width in half and create a significant restriction and over-steepened channel.			
	Project Comments: **CONDITION:** Sponsor will work with WDFW to design/redesign the project as needed.					

14 of 17	02-1507	R	Lewis County Public Works	Whiskey Creek Barrier (Cowlitz River)	232,200	41,000
	Description: This project is located in Whiskey Creek, a tributary to the Cowlitz River. An existing culvert restricts access for migrating adult anadromous fish more than 60% of the time. The 0.8' outfall is considered a 100% barrier to juvenile resident upstream migration. A new precast concrete three-sided bottomless bridge, designed streambed gravel, and streamside plantings are proposed. Removal of this barrier will provide 683 sq m of spawning habitat and 1,334 sq m of rearing habitat. Salmonid species documented below the target barrier include: coho, steelhead, resident & searun cutthroat, and rainbow trout.					
	Benefit to Salmon: **Med** Good to open up system. Fish passage is a priority-limiting factor in LCFRB strategy. Certainty of Success: **Med - C** Proposed bridge span may be too short. Will cut the channel width in half and create a significant restriction with a v-shaped channel profile. Channel width appears very small and may be over armored due to channel being over-steepened.					
	Project Comments: **CONDITION:** Sponsor will work with WDFW to design/redesign the project as needed.					
15 of 17	02-1509	R	Lewis County Public Works	Highland Creek Barrier Removal	443,000	85,000
	Description: This project is located in Highland Creek, a tributary to the Tilton River (tributary of the Cowlitz). An existing 11-ft span culvert's velocity and outfall height is restricting access for migrating adult anadromous fish more than 75% of the time. The 0.9-ft outfall is considered a 100% barrier to juvenile upstream migration. A new precast concrete bridge, designed streambed gravel, grade control, and streamside plantings are proposed to restore fish passage. Removal of this barrier will open up more than 10,235 sq m of spawning habitat and 6,907 sq m of rearing habitat.					
	Benefit to Salmon: **Med** Partial barrier to adults and juvenile. Predominantly coho Tier 3 with some Tier 1 steelhead potential. High cost. Additional upstream barriers limit project benefits at this time. Certainty of Success: **Med - C** Channel is over-steepened. Appears work is solely in right-of-way. Proposed bridge span may be too short. Will cut the channel width in half and create a significant restriction.					
	Project Comments: **CONDITION:** Sponsor agrees to work with WDFW to design/redesign the project as needed.					
16 of 17	02-1501	R	Cowlitz-Wahkiakum Cons Dist	Leckler Creek Weir Project	38,405	10,680
	Description: Leckler Creek is a tributary to the Cowlitz River and provides spawning and rearing habitat for a variety of salmonids. Temperatures regularly exceed the state standards. This project will fence livestock out of the stream and re-plant native trees and shrubs, including conifers to provide shade and decrease fine sediment delivery. A partial barrier culvert will be backwatered to deepen the water sufficiently to allow juvenile fish to pass.					
	Benefit to Salmon: **Med** Good to open up system. Fish passage is a priority-limiting factor in LCFRB strategy. Certainty of Success: **Low** Rock weirs downstream may not be appropriate for channel size; low confidence in design. A long-term approach should be evaluated.					
	Project Comments:					
17 of 17	02-1503	R	Lewis County Public Works	Foster Creek Barrier Cowlitz River	248,800	44,000
	Description: This project is located in Foster Creek, a tributary to the Cowlitz River. An existing 8' x 6' box culvert on Jackson Highway is restricting access for migrating adult anadromous fish more than 75% of the time. The 0.8' outfall is considered a 100% upstream migration barrier to juvenile and resident fish. A new precast concrete three sided bridge, designed streambed gravel, grade control, and streamside plantings are proposed to restore fish passage. Removal of this barrier will open up more than 1,160 sq m of spawning habitat and 4,319 sq m of rearing habitat.					
	Benefit to Salmon: **Low** There are additional barriers upstream and downstream. Good to open up system. Fish passage is a priority-limiting factor in LCFRB strategy. Certainty of Success: **Low** The bridge span looks to be 20 – 30 feet too short creating a v- shape channel. Design channel width appears very small and may be over-armored due to channel being over-steepened under bridge. An increased bridge span could lead to greatly increased costs. Greater upstream/downstream work in channel is needed to provide a stable channel. Need to consider culvert vs. bridge designs and cost benefit trade-offs.					
	Project Comments:					

Lead Entity Ranking and Technical Panel Comments and Rating

Mason Conservation District LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 3	02-1574	R	South Puget Sound SEG	Malaney Creek Fish Passage Project	326,780	57,892
	Description: Malaney Creek travels for about 3 miles from the outlet of Spencer Lake until the confluence with Oakland Bay. Approximately 0.50 miles upstream of Oakland Bay, a major culvert barrier exists under Agate Road. This project will better access 2.5 miles of habitat for Coho, steelhead, chum salmon and cutthroat trout. The available habitat is considered to be functional and intact. SPSSEG and partners will build a cost effective solution that benefits salmon and their habitat needs. This project will construct a 22' wide 100' long concrete box. Much of the match will be provided by Mason County, the landowner, in the form of cash and donated labor and equipment.					
	Benefit to Salmon:	**High**	Improves access to 2.5 miles of high quality habitat for multiple species and restores natural channel processes. Continues the remediation of passage issues in this area of the WRIA. Close to estuary.			
	Certainty of Success:	**High**	Good partnering. Good conceptual design. Outcome of a SRFB funded inventory project. Previous projects in this area have shown great fisheries response to removal of barriers. There are three culverts upstream, but appear to be passing fish. Culverts downstream have been removed.			
	Project Comments:					
2 of 3	02-1591	R	South Puget Sound SEG	Little Skookum Valley, Phase I: Passage	120,140	21,202
	Description: This salmon enhancement project will improve a Mason County stream/road crossing on Skookum Valley Creek, (a tributary to Skookum Creek at RM 5). The Eich Rd culvert is a nearly impassable structure that has begun to rust and fail. The water is falling through rust spots at the outlet making it difficult for salmon migration. The likely structure will be a large 18' Aluminum Arch Culvert or 20' pre-fabricated bridge. The project will open 1.4 miles and allow for fish migration at all life stages.					
	Benefit to Salmon:	**Med**	Skookum watershed is a high priority for the WRIA. Although technically a partial barrier, imminent failure probably means it is a full barrier. Removes a partial barrier improving access to 2,100 meters of decent habitat for multiple species. Sponsor is also working on riparian conditions in the watershed to complement access issue. Other partial barriers upstream may limit overall long-term benefit. The PI increased from 14.61 to 22.			
	Certainty of Success:	**High**	Good partnering. Good conceptual design. Working to address all issues at site. Outcome of a SRFB funded inventory project. Previous projects by this sponsor showing great fisheries response to the removal of barriers.			
	Project Comments:					
3 of 3	02-1444	R	South Puget Sound SEG	Little Skookum Valley, Phase II:Riparian	27,942	5,000
	Description: This salmon enhancement project will improve stream habitat on Skookum Valley Cr, (a tributary to Skookum Cr at RM 5) for salmonids and other resident species. SPSSEG and partners will implement Large Woody Debris (LWD) placement, riparian fencing, and provide riparian plantings upstream of a Round 4 SRFB Application (Eich Road Fish Passage Project). Together, these projects will have a positive effect for salmon in the Skookum Valley Cr watershed.					
	Benefit to Salmon:	**Med**	Reestablishing riparian buffer on high priority stream in association with access improvements. Cattle would be excluded completely. Deals with the only other main area of degradation in the system besides access.			
	Certainty of Success:	**Med**	LWD cost appears low. Is there enough LWD? (15@65') and how is it expected to function in this channel design? Is LWD designed or anchored? Willing landowner providing a 35 – 100 foot buffer for a minimum of 10 years. Looking at dealing with noxious weed problem prior to planting, but reed canary grass is difficult to eradicate.			
	Project Comments:					

Lead Entity Ranking and Technical Panel Comments and Rating

Nisqually River Lead Entity

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 11	02-1552 R	Nisqually Indian Tribe	Nisqually Estuary/Red Salmon Slough Rest	286,416	50,544

Description: This project will restore approximately 110 acres of diked pasture in the Nisqually Delta and return it to its original estuarine condition by removing and setting back approximately 6000 linear feet of dikes. The result will be an estimated 18% increase of total saltmarsh and fresh/salt transitional habitat in the Nisqually Estuary. The project will be accomplished by removing the dikes, which impede the tides from inundating the southern areas of Red Salmon Slough. This is the second and largest phase of the Tribe's plan to restore natural estuarine functions on their land.

Benefit to Salmon:	**High**	The estuary restoration project is a high priority area for the Nisqually basin and would benefit multiple salmonid species, particularly threatened chinook. The project likely addresses an important limiting factor for chinook populations and would help to restore tidal flows and distributary channels in the Nisqually River delta.
Certainty of Success:	**High**	There is a high certainty of achieving the objectives of increased and improved estuarine habitat for multiple salmon species.

Project Comments:

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
2 of 11	02-1476 A	Nisqually R Basin Land Trust	Nisqually River Shoreline Protection	400,000	100,000

Description: This project is seeking funds to acquire critical shoreline property without identifying in advance each individual parcel. Rather, actual parcels will be evaluated and ranked for acquisition using selection criteria. Each potential acquisition, once identified, will be reviewed and approved by the Nisqually Salmon Recovery Lead Entity, in consultation with the Nisqually Habitat Workgroup, and by the IAC grant officer. The target for the project is a minimum of 100 acres of shoreline property, covering a minimum of two river miles.

Benefit to Salmon:	**Med**	It is difficult to evaluate the benefit to salmon since no specific parcels have been identified. Since the acquisitions would be along the Nisqually River shoreline and likely represent close to two miles, the benefit to salmon would be conservatively considered a moderate benefit.
Certainty of Success:	**High**	A high certainty of achieving benefits was given because the applicant provided additional clarification on the process that will be used to actually provide protection for a full two miles of shoreline and provide a high level of benefits to fish. The criteria for selection are good, and the sponsor agreed to amend the proposal to increase the minimum score to 15 to reduce the chance of allowing acquisition of properties with limited benefit to salmonids.

Project Comments: The sponsor agreed to amend the proposal to increase the minimum score to 15 to reduce the chance of allowing acquisition of properties with limited benefit to salmonids.

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
3 of 11	02-1479 A	Nisqually R Basin Land Trust	Weyco Ohop Shoreline Acquisition	527,000	93,004

Description: The purpose of this project is to acquire 80 acres of Weyerhaeuser timberland along the Nisqually River and Ohop Creek, including the confluence of the creek and the river. After acquisition, the land ultimately will be transferred to state parks ownership. However, prior to that transfer the applicant will insure that all salmonid habitat values, including in particular the timbered stream corridors, will be permanently protected while allowing for the development of certain specified state park facilities associated with day use and river access. This property is proposed for inclusion in the Nisqually Mashel State Park.

Benefit to Salmon:	**Med**	Located in a high priority area that would benefit multiple species. The confluence of the Nisqually and Ohop Creek is a unique and important area. The project may become part of the Nisqually Mashel State Park and enlarge a block of protected stream corridor. The benefit is lowered by the fact that about 60% of the acquisition is upland.
Certainty of Success:	**High**	The fee simple acquisition provides a high certainty of protecting the site, although some uncertainty remains in regard to future long-term management and plans by the state park and potential impacts from recreational use of the area.

Project Comments: The purchase could be accomplished between State Parks and Weyerhaeuser but may be a while. Not clear that the shoreline area is really at threat and has a high percentage (60%) upland.

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
4 of 11	02-1535 A	Nisqually R Basin Land Trust	Weyco Mashel Shoreline Acquisition	775,850	136,915

Description: The Weyerhaeuser Company owns 65 acres of timberland with old growth values along the right bank of the Mashel River from RM 2.2 to 3.2, immediately downstream of the Highway 7 bridge. The Mashel at this site contains excellent salmon spawning and rearing habitat, currently utilized by Chinook, pink, coho and steelhead. This land is proposed for inclusion in the Nisqually Mashel State Park; however, Weyerhaeuser and state parks cannot agree on the value of the timber. After acquisition the land will be transferred to state parks; however, prior to that transfer the applicant will insure that all salmonid habitat values, including in particular the timbered stream corridor, will be permanently protected.

Benefit to Salmon:	**Med**	Located in a high priority area that would benefit multiple species. The Mashel acquisition would become part of the Nisqually Mashel State Park and enlarge a block of protected stream corridor. The benefit is lowered by the fact that 80% of the acquisition is upland.
Certainty of Success:	**High**	The fee simple acquisition provides a high certainty of protecting the site, although some uncertainty remains in regard to future plans by the state park and of achieving significant benefits to salmon.

Project Comments:

5 of 11	02-1493	A	Nisqually R Basin Land Trust	Markus Shoreline Acquisition	102,000	18,000

Description: This project proposes to acquire a 5-acre shoreline parcel and to acquire a protective conservation easement on an adjacent 11-acre parcel, located in the Whitewater and McKenna reaches of the Nisqually River. The shoreline habitat on these two parcels is high bank, with a heavy growth of older mixed species timber. The 5-acre parcel is undeveloped and includes approximately 800 feet of shoreline. The 11-acre parcel, with nearly 1200 feet of shoreline, contains one home and approximately two acres of cleared land; otherwise it is undeveloped with large trees along the Nisqually River. The easement on the 11-acre parcel would eliminate any future subdivision of the property or any timber harvest in the shoreline area.

Benefit to Salmon:	**High**	This acquisition would protect up to 2,000 feet of shoreline in a high priority area that would benefit multiple salmon species. The applicant provided clarifying information concerning the floodplain. The applicant stated that the property is within a sharp meander of the river and so is surrounded by the river on three sides.
Certainty of Success:	**Med**	Some uncertainty exists with the conservation easement on the 11-acre parcel because of the uncertainty about easement requirements to be negotiated with the existing landowner, such as protection and maintenance of the access road and riparian area.

Project Comments:

6 of 11	02-1536	N	Pierce Co Conservation Dist	Nisqually Restoration Feasibility Study	95,698	22,182

Description: A previous SRFB grant (IAC #00-1863N) funded the first stage of this project. Anadromous tributaries to the Nisqually River will be walked in their entirety by a professional field crew, and potential barriers will be identified and analyzed according to WDFW criteria for fish passage and priority index. Finally, preliminary project designs will be prepared for restoration of lost salmon habitat. The objective of this project is to complete a database of barriers to fish migration and priority index surveys, and preliminary engineering (30% level) for from 8-10 habitat restoration projects in the freshwater portion of WRIA 11.

Benefit to Salmon:	**Med**	The assessment covers one high priority basin, the Mashel River, but also includes a number of lower priority basins (e.g., Yelm, Lynch Busywild, McGregor). The assessment is also unlikely to find barriers that significantly impact Chinook or chum salmon, two priority species for the lead entity. The importance of fish passage barriers and expected gain in habitat access are uncertain.
Certainty of Success:	**Med**	Having a 30% design for a list of potential projects helps improve the certainty of achieving the objectives, but it is unclear how much benefit will be achieved and when the projects would be funded and implemented.

Project Comments:

7 of 11	02-1473	R	Pierce Co Conservation Dist	Brighton Creek Culvert Replacement	404,552	71,392

Description: This project will remove a total barrier to salmon migration near the mouth of Brighton Creek, a tributary to the Nisqually River. Project benefits include new access to four miles of spawning and rearing habitat for Coho Salmon, Chum Salmon, Steelhead, and Cutthroat Trout. An existing 36" culvert under Harts Lake Loop Road will be removed and replaced with a 23' x12' bottomless aluminum arch culvert and a rocky cascade immediately downstream will be adjusted to facilitate good salmon passage. This project will bring immediate benefits to multiple Nisqually River salmonids.

Benefit to Salmon:	**High**	This culvert replacement would open access to approximately 4 miles of good to moderate quality habitat for multiple species primarily Coho and chum. The project addresses a key limiting factor for salmon in this creek, although the lack of chinook presence lowered the priority for the lead entity.
Certainty of Success:	**Med**	The steep 8% gradient of the culvert may limit access for fish but is expected to improve access to habitat for significant numbers of fish.

Project Comments:

8 of 11	02-1478	R	Pierce Co Conservation Dist	Horn Creek Restoration Project	173,099	30,547

Description: This project will remove two barriers to salmon migration on Horn Creek, a tributary to the Nisqually River. Project benefits include new access to 1.5 miles of spawning and/or rearing habitat for Chinook, Pink, (Kerwin, 2000) Coho and Chum Salmon, and Steelhead and Cutthroat Trout. An existing 54" culvert under Harts Lake Loop Road will be removed and replaced with a 19' x6.3' aluminum bottomless arch culvert, and a waterfall a short distance downstream will be bypassed by a series of natural rocky pools to facilitate salmon passage. This project will be relatively easy to construct, and will bring immediate benefits to Nisqually River salmonids.

Benefit to Salmon:	**Med**	This fish passage improvement project would replace a partial barrier culvert providing access to approximately 1.5 miles of good to moderate quality habitat that would benefit multiple species including listed Chinook salmon. The reason for the medium benefit rating is that only a moderate length of stream will have improved access and the barrier is only partially blocking.
Certainty of Success:	**Med C**	A moderate level of certainty was applied because of the level of and maintenance of passage improvement is uncertain and because of other habitat related problems upstream of the crossing.

Project Comments:
CONDITION:
The certainty would be increased if the waterfall is removed. It is recognized that this would depend on landowner approval. A fish passage structure around the man-made waterfall would be the least desirable because of maintenance, attraction flow, and constant monitoring.

9 of 11	02-1539	R	South Puget Sound SEG	Toboton Sub-basin Fish Passage Restorati	673,603	118,872

Description: This project will restore full fish passage access to several miles of good quality habitat used by chum and coho salmon and steelhead and cutthroat trout. Toboton Creek enters the Nisqually River at RM 29.3. The creek contains four barriers--this project would remove the lowest three. A Priority Index of 32.57 was calculated for the stream as a whole. The first is a steel culvert just downstream from Piessner Rd. It floods periodically and has a slope of -3%. Next upstream under Piessner Rd. is a triple pipe that does not meet WA state depth criteria. Further upstream under Bald Hills Rd., a concrete culvert 1.5' in diameter partially blocks access to fairly undisturbed, natural habitat.

Benefit to Salmon:	**Low**	The project would replace three partial barriers and would provide improved access to about 3.5 miles of moderate quality habitat for multiple salmonid species, but is a lower priority area because chinook do not utilize the stream. The high cost and limited effectiveness of the project contributed to the low benefit rating.
Certainty of Success:	**Med**	The moderate habitat quality in a rural residential setting and potential in-stream flow issues limits the certainty of achieving significant benefits to salmon.

Project Comments: No bank hardening. Good riparian habitat.

10 of 11	02-1490	R	Pierce Co Conservation Dist	Lacamas Creek Culvert Replacement	124,009	21,884
	Description: This project will remove a barrier to salmon migration on Lacamas Creek, a tributary to the Nisqually River. Project benefits include new access to .4 miles of spawning and rearing habitat for Coho, Chum, Steelhead, and Cutthroat Trout. Existing twin 36" culverts under 16th Avenue will be removed and replaced with a 16.3' x 5.5' aluminum box culvert to facilitate good salmon passage. This project will be relatively easy to construct, and will bring immediate benefits to Nisqually River salmonids.					
	Benefit to Salmon: **Low** This project would provide improved access to less than 0.5 miles of lower priority habitat that would benefit multiple species by addressing a 33% partial barrier. The limited length of habitat accessed limits the benefits of this barrier removal.					
	Certainty of Success: **Med** The moderate to good habitat quality in a rural residential and urbanized setting limits the certainty of achieving significant benefits to salmon.					
	Project Comments: There is a barrier approximately 650 meters above that would increase the benefit to salmon if removed.					
11 of 11	02-1533	R	South Puget Sound SEG	Lackamas Creek Fish Passage Restoration	103,277	36,768
	Description: This project will restore fish passage access to over 1.4 miles of low gradient groundwater-fed habitat utilized by chum and coho salmon and steelhead and cutthroat trout. Lackamas Creek enters the Nisqually River at RM 28.7. This project would remove one of the lowest blockages. A double barrel concrete culvert runs under Thurston County-owned Bald Hills Rd. This road crossing floods on occasion, indicating the undersized nature of the current structure. This blockage received a Priority Index number of 24.33.					
	Benefit to Salmon: **Low** This project would provide improved access to about 0.6 miles of lower priority habitat that would benefit multiple species. The limited amount of habitat improved by fish passage restoration in a low priority area was the reason for the low benefit rating.					
	Certainty of Success: **Low** The moderate habitat quality in an urbanized setting and potential in-stream flow issues limits the certainty of achieving significant benefits to salmon.					
	Project Comments: Design appears to need improvement.					

Lead Entity Ranking and Technical Panel Comments and Rating

North Olympic Peninsula LE

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 8	02-1621 C	Sequim Prairie Tri-Irrigation	Sequim Prairie Tri-Irrigation Reservoir	533,174	465,700
	Description: This water conservaton project is a Re-regulation Reservoir and pressurized piping system in the Port Williams area near Sequim. The project will construct a complete water storage and distribution system for 670 acres of farmland. Withdrawls are estimated to decrease from the Dungeness by 3.0cfs during the irrigation season, of April 15 to Sept. 15, and improve habitat for all fish species in the lower 6 miles of the river. Species benefitted will be ESA listed as threatened Puget Sound chinook, summer chum and bull trout, as well as the summer steelhead and fall pink which are considered critical by the NOPTRG.				
	Benefit to Salmon: **High**	Low stream flow during migration and spawning is a primary limiting factor for several salmon species (chinook, fall pink, and summer chum) in the lower Dungeness River. This project could reduce irrigation diversion requirements by 3 cfs during critical summer and fall months. It may also make side-channel habitat accessible to spawning fish, important because it is considered to be refuge habitat during high flows, which tend to scour mainstem spawning gravels. Complements numerous habitat restoration and water conservation projects that have been implemented in the lower Dungeness.			
	Certainty of Success: **Med**	Water savings are firm estimates due to the nature of physical improvements (i.e. elimination of tail-race discharge). Project is considered a pilot to demonstrate value and benefits.			
	Project Comments: This is a very expensive project to save 3 cfs of water. Nearly 50% match, however. Tier 1 stream, consistent with restoration priority. Actual amount of water saved is not guaranteed, full participation of irrigators is not assured, and funding for low-pressure irrigation system apparently is not in place.				
2 of 8	02-1573 A	North Olympic Land Trust	Lake Pleasant & Lake Creek Conservation	297,500	52,500
	Description: This project will permanently protect, by conservation easements, productive sockeye, coho, steelhead and cutthroat habitat on about 29 undeveloped acres on the north shore of Lake Pleasant. The project area includes 1,300 feet of Lake Creek, tributaries to the creek and the lake and approximately 10 acres of forested wetland. All the sockeye in the Quillayute system spawn in Lake Pleasant, preferring the north shore. They are a unique stock, an Evolutionarily Significant Unit whose status appears stable.				
	Benefit to Salmon: **High**	Protects high quality, heavily used sockeye and coho spawning and rearing habitat through permanent conservation easement. Helps to sustain habitat used by healthy populations. Tier 1 stream, consistent with strategy protection priority. Sockeye populations are somewhat unique in Washington State.			
	Certainty of Success: **High**	Protection by elimination of on-site impacts is important but upstream land management can affect targeted properties and habitat.			
	Project Comments: The Trust should pay particular attention to upstream activities that may alter Lake Creek hydrology, sediment load, and water quality. No restoration needed currently.				
3 of 8	02-1528 R	Clallam Co Community Dev	Jimmycomelately Creek Bridge/Channel	750,000	112,500
	Description: Washington State Department of Transportation will construct a 115' by 40' bridge on Highway 101 to accommodate a realigned stream channel for Jimmycomelately Creek (JCL). Originally funded during the 2000 SRFB cycle ($590,000), DOT identified funding shortfalls during the design phase. These resulted from the need for a larger span to accommodate all flows and an underestimate of the load-bearing capacity of the underlying soils. Most importantly, crucial mobilization and construction costs related to the bridge were inadvertently omitted.				
	Benefit to Salmon: **High**	Reconnects creek to estuary and allows physical processes to be restored. Stream supports summer chum, Coho and steelhead. Essential component of total watershed restoration effort.			
	Certainty of Success: **High**	All other funding and implementation necessary for all phases of basin restoration are in place except for the bridge. Proponents have experience in implementing restoration actions of this nature. High level of partnerships and associated comprehensive assessments will ensure help full implementation.			
	Project Comments: This project was previously funded. However, the design underestimated the cost of certain elements. A relatively short tier 2 steam (tier 1 estuary) that requires significant fresh and estuarine habitat restoration to improve productivity. New bridge is one of several elements required to complete a full basin restoration plan. It will likely take several years for system to become fully functional.				
4 of 8	02-1545 A	Wild Salmon Center	Elk Creek Acquisition	680,000	120,000
	Description: This project will acquire 220 acres, a narrow strip ¼ mile wide by 1 ¼ miles long that forms the valley floor of Elk Creek, near Forks. The project site borders both sides of this unaltered steam corridor and the lower portions of the adjacent steep hillsides. This area is currently owned by ITT Rayonier and is slated for clear-cut logging operations in Spring 2003. Elk Creek provides one-third of the total redds spawned in the entire Calawah Basin. This project will protect valuable spawning and rearing habitat by direct purchase from Rayonier.				
	Benefit to Salmon: **High**	Protects 1.25 miles of high quality, heavily used steelhead and Coho spawning and rearing habitat from further forest practices. Numerous spring fed channels provide undisturbed off-channel habitat.			
	Certainty of Success: **High**	Stream channel and floodplain are in a steep-sided valley subject to high rainfall events and hillside erosion. Disturbance associated with forest practices will not be mitigated with existing regulations. Upstream property owned by USFS and future activity said to be minimal, helping to ensure preservation of downstream habitat.			
	Project Comments: Tier 1 stream. Extensive monitoring plan. Property owner committed to preservation of habitat. Not contiguous. Small area of land would be left unprotected between the acquired properties that may be vulnerable to degradation.				

5 of 8	02-1583	R	Lower Elwha Klallam Tribe	Deep Cr & SF Pysht Riv LWD Restoration	619,675	109,355

Description: This project involves placing large wood in Deep Creek and the Pysht River. In Deep Creek, 6 channel spanning logjams will be completed between river mile 0.2-1.3. For the SF Pysht, large wood will be placed as free key pieces and as constructed logjams. Plain bed channel reaches will be targeted for placement in river mile 0.0-0.5, 0.8-3.5, and 4.0-5.5. These are the remaining untreated reaches following previous cooperative restoration projects between Merrill & Ring and the Tribe.

Benefit to Salmon:	**Med**	This is the last and most downstream stream sections for treatment in Deep Creek. The SF Pysht proposal includes over 4 miles of previously untreated stream reaches critically low in LWD. Work will benefit all species including Chinook, chum, coho, steelhead, and cutthroat.
Certainty of Success:	**High**	Approach and techniques used by Lower Elwha Tribe restoration crew have stood test of time in these western Strait streams and have been able to achieve habitat objectives. USFS owns upper Deep Creek and is actively addressing road problems through decommissioning.

Project Comments: Tier 2 and 3 streams. Habitat productivity monitored via smolt trap on Deep Creek. Applicant should consider the use of military helicopters as a cost savings measure.

6 of 8	02-1581	R	Makah Tribal Council	Brownes Cr Instream Habitat Restoration	78,129	18,695

Description: The project will restore formerly productive instream chinook habitat in Brownes Creek that was destroyed when a massive debris torrent initiated from a plugged culvert and deep road-fill failure on State lands. A large amount of wood was scoured from the channel, and deposited outside of the bankfull width. The wood can be easily relocated back into the stream. Approximately one mile of stream will be directly treated, and additional stream segments will be seeded at stream crossings.

Benefit to Salmon:	**Med**	Primarily benefits Chinook, within a Tier 2 stream. The project will place old-growth derived wood that is much larger than the creek is capable of fluvially transporting back into the channel so it will function as part of a complex watershed-scale process. Will revegetate with conifers.
Certainty of Success:	**Med**	Though it will likely take a few years for recovery to be realized, the project will accomplish two main objectives: 1. Return primarily old-growth wood to the channel that was functional in the channel for decades or centuries prior to the dam-break flood, and 2. Use a proven technique that has been successful in Boundary Creek by the Elwha Tribe.

Project Comments: There are no more road culverts above this project.

7 of 8	02-1468	N	Lower Elwha Klallam Tribe	Elwha River Chinook and Coho Telemetry	520,000	100,000

Description: This 5-year project will evaluate how well the capture and transport of chinook and coho from below the Elwha dams to release sites above the two reservoirs serves as a restoration technique to reestablish these species in the upper and middle river. Transported fish will be radio tagged and their movements monitored by a combination of fixed and mobile receivers. Individual fish coordinates will be mapped by GPS and the data stored on the Tribe's GIS system. Adaptive management principles will be used to modify segments of the project as the project proceeds.

Benefit to Salmon:	**Low**	Proposal will radio tag several species of salmon and release tagged fish above dam to determine where fish distribute to spawn. Will provide information on use of adult spawners to reestablish populations in upper Elwha after dam removal. Several strategies will be employed to reintroduce fish into the upper watershed, including volitional upstream migration -- regardless of what test fish may indicate. Reintroduction of hatchery fish into the upper Cowlitz River via transportation is occurring at this time. Perhaps monitoring the success of that program will provide all the information needed to develop a successful strategy in the Elwha.
Certainty of Success:	**Low**	Tagged and transported salmon do not always react as unhandled fish do. Depending on the severity of stress, some may reverse migration and return to the reservoir or even estuary. The proposal does not develop a compelling argument for doing the project at this time. Envisions using a Threatened stock as test animals. Access into National Park can sometimes limit research. Chinook in the Elwha have traditionally shunned entering hatcheries, preferring to spawn in the mainstem.

Project Comments: This project should be funded under the Elwha River restoration program if the proponents believe this will provide vital information for stock reintroduction.

8 of 8	02-1599	C	North Olympic Land Trust	Ennis Creek Restoration & LWD Research	423,554	177,112

Description: This project will purchase development rights and use conservation easements on those approximately 21 acres with about 1/4 mile of Ennis Creek (within Port Angeles) and adjacent conservation easement property with 1/4 mile of the creek to: 1) protect spawning and riparian habitat for steelhead, coho, cutthroat and bulltrout, 2) use LWD to reduce gravel flow affecting spawning habitat and blocking access, 3) Enhance riparian vegetation, 4) obtain data to plan large wood placement upstream, and 5) complement other habitat improvement efforts.

Benefit to Salmon:	**Low**	Urban stream with limited salmonid use. Tier 3 stream -- access above Hwy 101 requires fishway, and is a high maintenance facility. May have to cannibalize riparian zone to find trees for inchannel roughness to capture and retain gravel. Habitat rated best of urban streams in PA.
Certainty of Success:	**Low**	Attempting to address a sediment transport problem with in channel structure. Upstream habitat protected by National Park. Other problems need to be addressed (i.e. stormwater). Not addressing gravel source. LWD placement may jeopardize capital structures downstream.

Project Comments: Strong community support.

Lead Entity Ranking and Technical Panel Comments and Rating

Pacific County Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 8	02-1572	R	Pacific Conservation District	Upper Willapa River Riparian Restoration	78,750	15,833
	Description: This project will implement agricultural practices in the Upper Willapa River Basin to improve fish habiat and water quality. These practices include livestock watering facilities, livestock crossings, channel vegetation, fencing, and use exclusion. Fencing will prevent livestock from directly depositing feces and urine in stream and excludes livestock from the riparian zone. This practice prevents trampling of the streambank by livestock thereby preventing soil erosion. This grant application in conjunction with the already acquired DOE grant will dramatically improve water quality within this region.					
	Benefit to Salmon:	**Med**	Applicant is trying to do the right thing. Overall coordinated resource management project addresses identified water quality limiting factors for the Upper Willapa Watershed, which affects documented spawning and rearing habitat and success for Willapa Chinook, chum, Coho and steelhead. Project targets 15 of the 38 farms in the area for approximately three miles. Project areas chosen based on recommendations from the TMDL study indicating areas that do not meet water quality standards and riparian areas are degraded.			
	Certainty of Success:	**Med**	Some uncertainty about how the channels will be re-shaped to place the five crossings and the longevity of the crossings. CRM process is built around volunteer landowner involvement and includes outreach to landowners in the area to get involved. This ensures commitment of the landowners that agree to be involved. However, the voluntary nature of the CRM doesn't guarantee that the highest priority or key properties are always included. The applicant states that the inclusion of watering facilities through SRFB funding will increase the likelihood of landowner participation. Key properties have been identified, but willingness of landowners has not clearly been identified at this point. Could this be funded under other sources and why was it not allowed in DOE funding?			
	Project Comments:					
2 of 8	02-1463	R	Willapa Bay RFEG	Salmon Creek	204,071	36,013
	Description: Willapa Bay Fisheries Enhancement Group hired AES to make a more detailed evaluation of Salmon Creek a tributary to the Naselle River. About 6,500 ft has been identified as lacking channel structure and sinuosity. The existing 5900 road was constructed between the stream and an adjacent wetland. The 5900 road will be abandoned down to the Horse Camp. Road abandonment by Campbell Group and DNR is not part of the funding request. Improvements will include in-stream habitat features, and re-grading of the channel migration zone to re-connect off-channel habitat.					
	Benefit to Salmon:	**Med**	High cost of Large Woody Debris placement and reshaping of the channel. Are there other limiting factors or issues not being addressed? Extent of Project directed by landowner willingness to work in this area although habitat conditions and restoration needs identified through a watershed level inventory for the Naselle system. This type of action is the #3 priority for the Naselle Watershed. Partnership enabling road decommissioning (1 mile) along with instream enhancement of approximately 1,000 feet of stream. Enhancement effort is somewhat band-aid, but combination of road and enhancement has greater benefit overall. A large area downstream in the tributary is in the same condition and needs treatment, but this project would be a start.			
	Certainty of Success:	**Med**	Sponsor has completed similar projects in other tributaries that have been successfully implemented. LWD is an interim measure and often has mixed results. What else is missing or could be done to improve the system in addition to LWD?			
	Project Comments:					
3 of 8	02-1458	N	Willapa Bay RFEG	Oxbow Culvert Design	55,250	9,750
	Description: This project will develop a design for two culverts on Oxbow Creek: two side-by-side 10 ft culverts. The culverts are blocking 5 miles of fish bearing waters, which provide an important biological process of spawning and rearing to Chum, Coho, Chinook, Steelhead, and Cutthroat Trout. The culvert have a priority index of 40.43. This effort will collect all the requirements for the in-streams improvements and the culvert replacement data such as: hydraulic data, streambed conditions, stream morphology, and develop a design.					
	Benefit to Salmon:	**High**	Design for two full barrier culverts and restoration of stretch (1.5 mi) that would open access to five miles of good spawning area to multiple species. Replacing culverts with bridges so gaining full process restoration if bridge sized appropriately.			
	Certainty of Success:	**Med**	Good partnering. Price is adequate. Concern about bedrock and the lack of a geo-tech report. Active harvest in the upper watershed may continue to inhibit recovery of the system. Applicant has proven record for implementing this type of project so we can expect implementation after design is completed.			
	Project Comments:					

4 of 8	02-1465	R	Willapa Bay RFEG	Mid Nemah Stream	82,654	14,586

Description: The Nemah Assessment funded by the SRFB, identified specific projects for restoration in the Mid-Nemah. The assessment identified a low amount of key pieces of LWD and a lack of pool and riffle definition throughout this stretch of the Mid-Nemah. This stream segment is approximately 2,400 feet in length containing serious bank instability. Partners: Department of Natural Resources and Willapa Bay Fisheries Enhancement Group.

Benefit to Salmon:	**Low**	Multiple species benefit. The project was selected from a recently completed assessment. Unclear if there are other limiting factors in the tributary that may affect the benefit of this project. Lack of LWD and streambank instability at two locations were identified as problems for this area of the system. These issues are limiting spawning conditions and the amount of spawning habitat available. Sponsor stated that the outer bend instability is related to an adjacent road, but it is not possible to relocate or close the road due to access needs upstream. It is unclear what the relative sediment contribution of this area is to the system. Although this project may eliminate the current instability what's to ensure that other areas of instability will not develop related to this road? Extent of project is directed by landowner willingness to work in this area only although habitat conditions and restoration may be needed in additional areas of the watershed. Identified in Nemah watershed analysis but unclear if a priority was given to this project.
Certainty of Success:	**Med**	Condition analysis of the area was completed prior to design. Bank stabilization cost appears low. LWD cost appears high. Is there enough LWD? (6@ 170' each) to accomplish the objectives. Not addressing the other issues.

Project Comments: Strategy does not indicate priority of Nemah in relation to other sub-watersheds.

5 of 8	02-1464	R	Willapa Bay RFEG	Finn Creek Restoration	110,205	19,448

Description: Willapa Bay Fisheries Enhancement Group identified a segment of Finn Creek as lacking channel structure and LWD resulting in bank stability and channel morphology problems. A low amount of key pieces of LWD, a lack of pool and riffle definition and stream bank instability associated with the adjacent B-line road. This stream segment is approximately 3,200 feet in length with four identified areas containing serious bank stability issues. Finn Creek is a tributary to the North Nemah.

Benefit to Salmon:	**Med**	Is this a limiting factor need? Priority # 5 for the Nemah. This project may not be addressing the root cause of the bank instability and the methods of bank stabilization are not given.
Certainty of Success:	**Low**	A&E is high for no design. Cost of channel shaping is very low. Is there enough LWD (7@371') to meet the project objectives. No design for bank stabilization work provided. Most areas of bank instability are on meander bends.Often woody debris installation is designed to increase sinuosity and create greater channel complexity and pool development. The design approach to this project does not address this conflict or give indications that this issue is considered and dealt with in the design. In addition, outer bend erosion is a natural process of channel migration. Other causes of instability were not given other than one area of steep slope.

Project Comments: Not entirely sure why Finn Creek below Mid-Nemah, no explanation was provided.

6 of 8	02-1586	N	Willapa Bay RFEG	Palix Watershed Habitat Assessment	23,520	4,980

Description: The objective of this project is to identify specific habitat Projects within the Palix watershed and prioritize the projects. These prioritized projects will allow the Lead Entity to further up-date their Strategic Salmon Recovery Plan to assure projects are planned developed and implemented in a strategic manner to allow salmon recovery to be accomplished in a manner that is the highest benefit to salmon and is the most cost effective.

Benefit to Salmon:	**Med**	Good to fill data gaps and obtain information. Cost seems low for walking stream. Assessment is primarily a catalog of restoration opportunities and concepts that can be used to develop projects for the watershed. This catalog with baseline conditions can be quite useful, but may not be capturing all of the watershed processes. The proposal doesn't really provide much detail on the methodology and how larger watershed processes are considered in relation to standard problems identified. Strategy does not provide information about the relative importance of the Palix in the Willapa system or the expected level of benefit or opportunity that can be expected from restoration in this watershed. This and the Willapa assessment are being put forward because these are the only ones the landowners are willing to work on at this time.
Certainty of Success:	**Low**	Is there existing data analysis, field surveys of habitat condition, or known problem areas that have been completed for this watershed? The limiting factors for this watershed area are not stated and little methodology is given except to refer to past assessment projects completed. Having been familiar with this area and group before I have some knowledge of the applicant's methods, but there is very little discussion of these methods and their merits in the proposal provided. Not Comprehensive.

Project Comments: Looks like a catalog of easy fixes. This may not be the right thing for the system. It is however, what they can accomplish as a small group.

7 of 8	02-1457	N	Coastal Resources Alliance	Impact of Spartina on Estuarine Salmon	100,000	20,000

Description: This project will support the three assessments necessary to remove uncertainty about impacts of Spartina on estuarine salmon habitat and how best to respond to it. This assessment proposes to use a collaborative process involving scientists, experts and local citizens to assess the following: 1) the impact of Spartina on salmon habitat in the Willapa Bay estuary; 2) the relative value of different estuarine habitats for salmon in order to prioritize restoration projects; and 3) the restorative benefits of various control techniques in re-establishing estuarine function for salmon species.

Benefit to Salmon:	**Med**	Good science, good education, good partnering. Strategy does not clearly address where the estuarine habitats fit into the Willapa system and its priority needs. Spartina potentially affects a significant portion of this habitat but affects are not clear. Assessment proposes to clarify this issue and identify the best places and methods to restore estuarine processes. Big effort to engage community in understanding the problem – may smooth the way for additional action. Sparing remediation already in process through Weed Board so this may not be best funding source. Primary benefit is clarifying issue in the community & defining appropriate restoration techniques for different areas.
Certainty of Success:	**Low**	The issue is larger than for salmon. Should others pay for this? Could funding come from other sources? Then what? What will get done on a large scale?

Project Comments: Is the real purpose of this is to educate the general population? Can this define appropriate restoration techniques?

8 of 8	02-1456	N	Willapa Bay RFEG	Willapa Watershed Habitat Project	53,975	9,525

Description: The objective of this project is to identify specific habitat projects within the Willapa River watershed and prioritize the projects. These prioritized projects will allow the Lead Entity to further update their Strategic Salmon Recovery Plan to assure projects are planned, developed and implemented in a strategic manner to allow salmon recovery to be accomplished in a manner that is the highest benefit to salmon and is the most cost effective.

Benefit to Salmon:	**Med**	Good to obtain information, but unclear of the benefit of this project as the problems to be addressed and the need for the assessment were not clearly articulated. No real understanding of how the Willapa fits as a priority in the WRIA.
Certainty of Success:	**Low**	No methodology provided, but what was provided indicated that the assessment is not comprehensive of all limiting factors. Will projects be determined and estimated?

Project Comments: Similar concerns as stated for the Palix assessment.

Lead Entity Ranking and Technical Panel Comments and Rating

Pend Oreille CD Lead Entity

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 1	02-1461 R	Town of Ione	Cedar Creek Fish Passage Restoration	641,653	116,057

Description: The Cedar Creek Fish Passage Restoration Project will restore fish passage to approximately 12 miles of bull trout and cutthroat habitat by removing the 19 ft. Cedar Creek Dam, reconstructing the stream channel, and restoring riparian vegetation. Other benefits include: restored channel form and function, reduced water temperatures, and elimination of the risk of dam failure. Cedar Creek is a tributary to the Pend Oreille River in northeastern Washington. The project is sponsored by the Town of Ione and includes assistance from Department of Ecology, WDFW, and USFWS.

Benefit to Salmon:	**Med**	This is a possible bull trout stream, however a proper bull trout survey has not been conducted. The stream has good quality habitat for 12 miles above the dam, although allowing passage of non-natives may hinder resident bull trout protection. The removal of this dam may jeopardize a relatively pure strain of Westslope Cutthroat trout due to introgression.
Certainty of Success:	**Low**	Project is likely to restore passage above the dam location, but achieving benefits to bull trout has some uncertainty. There is a partial barrier downstream of the project at River Mile 1, which needs to be addressed. Upon dam removal, another barrier will be installed to deal with introgression. However, it is unclear how a weir could provide passage to bull trout and not to rainbow trout. Fish management is included as an issue, because this project may affect fish populations.

Project Comments: 1. Due to the lack of data regarding bull trout use above the dam, it is highly recommended that the project proponent conduct proper bull trout surveys using USFWS protocols for night snorkeling and a 95% confidence level (protocol is attached). Also, it is highly recommended that the project proponent conduct a snorkel survey for Westslope cutthroat trout and conduct an introgression study prior to removal of the dam. Once this information is collected, then the proposed project should be re-evalutated. The proponent needs to develop a thorough plan to inhibit or reduce the introgression of Westslope cutthroat trout with rainbow trout. The project proponent should address the passage issue downstream of the dam (private road crossing). Also it is necessary that the project proponent develop and implement an exotic species eradication program prior to the removal of the dam. Finally, the project proponent needs to develop an adaptive management plan that addresses the above issues and includes an extensive monitoring and evaluation plan.

2. There are engineering concerns of creating a channel in this area due to the potential presence of a natural waterfall under the dam. Proponent may need further geo-technical work or evaluation of historic dam plans for feasibility of appropriate channel design for providing fish passage.

There is community support for the removal of the dam.

Lead Entity Ranking and Technical Panel Comments and Rating

Pierce County Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 10	02-1585	R	County of King	Boise Creek Restoration (Enumclaw Golf)	887,352	206,598
	Description: This project will restore 1500 ft. of Boise Creek on the Enumclaw Golf Course in southern unincorporated King County near the City of Enumclaw. Boise Creek is one of the most productive tributary salmon streams in the White River Basin for chinook, steelhead and coho. Nearly 4500 ft. (about 20% of the anadromous length) of the creek flows through the course. Much of the restoration will be accomplished by constructing a new 1,500 ft segment within the course where a relic channel exists.					
	Benefit to Salmon:	**Med**	High priority area with multiple fish species use. The applicant response provided a better understanding of the old channel and how i would complement the proposed project. The incremental benefit to salmon is moderate. The site already has high fish use and it is unclear the gain in habitat complexity in a relative short stretch (1500 feet) justifies the high cost. Similar gains in habitat should be able to be achieved at a much lower cost.			
	Certainty of Success:	**Low**	The applicant's response provided a better understanding of the golf course issues and the proposed buffer and riparian management. The certainty of achieving the stated benefits in a stretch where there is already high fish use by moving 1500 feet of the existing channel to a "restored" relic channel with wider buffers may be moderate. However, the incremental gain is fish use compared to the cost benefit is low. The concept of moving channels can be risky. The new channel that is being created may or may not be any better in terms of fish use.			
	Project Comments: Overall project cost are extremely high for 1,500 feet of stream restoration. Specifically: Administration and Engineering $252,500, LWD Placement 230 pieces at $264,500, golf course bridge $40,250, and effectiveness monitoring $92,375. This may be an appropriate project but should be able to be achieved at a lower cost.					
2 of 10	02-1582	C	Friends of Hylebos Wetlands	West Hylebos Cr Restoration/Preservation	749,452	978,420
	Description: The West Hylebos Creek Restoration and Preservation project will acquire 73 acres of riparian and wetland habitat and uplands in the City of Federal Way. This project will also restore spawning and rearing habitat for coho and chum salmon and cutthroat trout along 2,500 linear feet along the creek. Using biostabilization techniques to decrease flow energy, incision of stream channel and streambank erosion this project will protect spawning habitat for Chinook, coho and chum salmon.					
	Benefit to Salmon:	**Med**	Benefits mostly coho (mixed, composite stock) and cutthroat. Very limited production of chum, chinook, and steelhead. Protects 2,500 feet and 73 acres. Coho numbers range from about 100-125 per year (not a large quantity). Chinook population is 15-20 per year.			
	Certainty of Success:	**Low**	The watershed has several major problems and constraints. In the project area, they plan to install many engineered log jams and weirs (bank stabilization) and remove invasive plants. There are landslides (natural) that feed gravels into the system near the project area. They believe that as the gravels travel downstream, they are resulting in aggradation. However, downstream, the habitat is highly degraded. A bridge is a constriction, and there is a large amount of dikes/bank hardening farther downstream. There is high certainty that purchase of the property would protect the wetlands and riparian habitat, but low certainty that the log jams and weirs will address the problems that they described. It seems that downstream impacts have impaired sediment transport and deposition.			
	Project Comments: The technical panel has strong concerns over the success of the restoration component of the project.					
3 of 10	02-1579	R	Pierce Co Conservation Dist	Foothills Trail Culvert Replacement	172,878	30,508
	Description: The Foothills Trail Culvert Replacement project will open a large area of wetland refugia to juvenile salmon in a tributary to South Prairie Creek. The wetland habitat is less than 150 yards from mainstem South Prairie Creek, a priority stream for salmon recovery in the Puyallup River Watershed. The existing concrete culvert under the Foothills Trail is a total barrier to fish passage due to a 1' perch with no plunge pool, high velocity, and the bare pipe barrel. The project will replace this barrier culvert with an 8' diameter aluminum culvert with spawning gravel in the invert.					
	Benefit to Salmon:	**Med**	Opens up a large rearing area (21 acres) to coho, which spawn in large numbers nearby. Did not rate this high because it doesn't address multiple species.			
	Certainty of Success:	**High**	Culvert replacement.			
	Project Comments:					
4 of 10	02-1570	R	Pierce Co Conservation Dist	Coal Creek Fish Passage Restoration	191,943	35,884
	Description: This project will restore salmonid passage to Coal Creek in Auburn. Coal Creek is a tributary to the White River, part of the Puyallup River system in WRIA 10. The proposed solution is to open Coal Creek by removing the existing culvert and constructing approximately 150 feet of new streambed that is sinuous, has LWD, pools, riffles and riparian habitat that will provide shade to the new stream channel. The trail will be reconstructed over the stream by installing a 40 foot long by 14 foot wide (H20 Loading) prefabricated steel bridge with weather coating to reduce maintenance.					
	Benefit to Salmon:	**Med**	Small stream, primarily rearing habitat for coho, a lower priority stock in their stock strategy (mixed, composite stock). This is a total barrier that will open up 2,426 meters of off-channel habitat. Quality of habitat is good.			
	Certainty of Success:	**Med**	The streambed will be regraded and the culvert replaced with a footbridge to open fish access.			
	Project Comments:					

5 of 10	02-1626	R	South Puget Sound SEG	Horse Haven Watershed Restoration & Educ	216,933	58,637

Description: This project employs a sub-basin approach to restoring and preserving Horse Haven Creek, a groundwater-fed tributary to the Puyallup River located on the left bank at RM 19.08. This project, identified by the Puyallup River Watershed Council and developed with a previous SRFB grant, will improve rearing habitat and will alleviate reed canary grass while educating local high school students. Horse Haven is utilized by coho and chum salmon and steelhead and cutthroat trout. Creating a network of braided channels at the confluence will attract chinook fry as well. Planting native trees will shade out the canary grass and inhibit future establishment.

Benefit to Salmon:	**Low**	Could be some benefit from the continued removal of Reed Canary grass and the planting of native riparian. Some use of the creek by chum, coho, steelhead, and cutthroat. There are additional problems upstream, and it was not explained how this project fits into a bigger restoration picture for this watershed.
Certainty of Success:	**Low**	The certainty for success of the braided channels appears low. There are insufficient data to support this type of activity. Floodplain, sediment, and riparian impacts exist in this area, and this project only addresses riparian issues. The other issues will require broader analysis. If they modified the project to restore riparian conditions, it might rate to medium.

Project Comments: Monitoring program is very extensive and makes it look like a research/educational project.

6 of 10	02-1584	A	Cascade Land Conservancy	South Prairie Creek Habitat Acquisition	425,000	75,000

Description: South Prairie Creek, the primary tributary to the Carbon River, is the most important salmonid spawning area in the Puyallup watershed, producing nearly half of all the wild steelhead in the Puyallup River system, the only significant run of pink salmon, and important returns of chinook, coho, chum salmon and sea-run cutthroat trout. This project proposes the acquisition of priority properties along S. Prairie Creek based on the results of the S. Prairie Creek Action Plan funded in the 3rd Round of SRFB grants in 2001.

Benefit to Salmon:	**High**	This is a high priority area with major production for multiple species. They seem to be choosing the properties based upon appropriate qualities.
Certainty of Success:	**High**	Specific information is needed for a higher rating regarding current habitat quality and the willingness of the landowner to sell.

Project Comments:

7 of 10	02-1580	N	South Puget Sound SEG	WRIA 11 & 12 Nearshore Restoration Ph 1	326,707	58,700

Description: The nearshore habitat north of the Nisqually River Delta has been impacted substantially by the construction of the Northern Pacific Railway Company Point Defiance line in 1912 and other developments. This project provides funding for biological and physical study of the project area and development of potential restoration projects. These sites will be selected according to criteria developed during the assessment portion of the project, including likelihood of positive impact to salmon species, landowner willingness to allow and/or participate in restoration, and cost-effectiveness of potential projects.

Benefit to Salmon:	**Med**	This is an important topic and deserves further consideration.
Certainty of Success:	**Low**	No specifics were provided regarding what data and how it would be collected. There should be additional work on this topic to determine these criteria, and then seek funding. The criteria should consider specific benefits to salmonids such as potential productivity (abundance), types of stocks (wild/hatchery, population status), and number of stocks (biodiversity).

Project Comments:

8 of 10	02-1568	N	Pierce Co Conservation Dist	WRIA 12 Freshwater Restoration Study	80,000	60,000

Description: No thorough inventory has been made in WRIA 12/Chambers Clover Creek of barriers, habitat, and opportunities for restoration to date. This project will gather existing knowledge about the system into a comprehensive database such as has already been provided for WRIA's 10, 11 & 15. This project can be characterized as a portion of "Stage 1" assessment of WRIA 12. The objective of this project is to provide a database of barriers to fish migration and priority index surveys, and preliminary engineering (30% level) for from 5-10 habitat restoration projects in the freshwater portion of WRIA 12.

Benefit to Salmon:	**Med**	This basin provides habitat primarily for coho and chum. Highly urbanized area and the degraded habitat reduce the benefit. However, it is likely that some good quality habitat could be opened from this project. Balancing those two conditions results in a medium priority.
Certainty of Success:	**Med**	They are following accepted protocols, and have experience doing this type of work.

Project Comments:

9 of 10	02-1594	P	Pierce Co Conservation Dist	Puyallup/White/Carbon Acquisition Assess	397,625	222,750

Description: This project will develop a prioritized list of properties within the study area targeted for protection, and the acquisition of one or more priority properties within each Study Area. Detailed aerial photographs for the mainstem upper Puyallup River, Upper White River, and Carbon River will be acquired and analyzed for riparian conditions. Channel conditions will be checked against existing information for the project reach. These analyses will be compiled into a GIS layer of riparian and channel conditions which will be delivered to Pierce County government, the Puyallup Indian Tribe, and other interested parties, to be used for future project selection and development.

Benefit to Salmon:	**Med**	Will examine mainstem properties along the upper Puyallup, upper White, and Carbon Rivers to identify high priority properties. While this study could result in protection of excellent floodplain and riparian habitat, there are other issues that will not be resolved such as hydrology and sediment.
Certainty of Success:	**Low**	They are initially looking at riparian, channel stability, and landowner willingness. The lack of an acquisition strategy lowered the rating.

Project Comments: Does not appear to be cost effective. The study should provide a greater geographical focus.

10 of 10	02-1564	N	Puget Cr Restoration Society	Puget Creek Beach Eelgrass Assessment	9,425	4,470

Description: The proposed project is a continuation of an existing assessment/monitoring project, which is studying the health and state of eelgrass beds in one section of the Ruston Way shoreline in Tacoma. This project utilizes divers taking still pictures and doing stem counts in eelgrass locations corresponding to 1 m. sq. quadrates set out along transect lines. These dives are once a month. Also the study will utilize underwater video and GPS to document the location, size and extent of the eelgrass in a 200,000 sq. ft. area of the beach. The location is Commencement Bay, the geo. scope is a 200,000 sq. ft. beach section along Ruston Way, and targeted species are Chinook, Chum, Coho, Cutthroat and Steelhead.

Benefit to Salmon:	**Low**	This specific area was chosen because of citizen interest, not fish benefit. Although it is well known that eelgrass habitat is important for salmonids, it isn't clear why this site would be more important to fish compared to others in the bay. It would help if there were an overview of conditions in the bay with areas prioritized based upon potential fish use.
Certainty of Success:	**Low**	Project doesn't specify a final product.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

Quinault Nation Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 4	02-1531	N	Quinault Indian Nation	Lake Quinault Fertilization	609,967	108,700

Description: Lake Quinault is an ultra-oligotrophic sockeye nursery lake located on the Olympic Peninsula of Washington State. Since 1950, sockeye runsizes, escapements, and harvests have declined significantly. In essence, the lake acts as a "bottleneck" to smolt sockeye production. The fertilization of Lake Quinault project proposes to increase smolt sockeye production and runsizes by enhancing primary and secondary productivity through the addition of low-level concentrations of liquid fertilizer containing N and P over a 5-year period. QFID will monitor the effects of fertilization by examining primary and secondary productivity and correlating changes to juvenile sockeye growth.

Benefit to Salmon:	**High**	The Lake Quinault fertilization project likely addresses a key limiting factor that limits salmonid productivity in a high priority basin with a unique sockeye stock. A high benefit rating was given because lake fertilization would directly benefit a high priority species, lake productivity has been shown to be a major limiting factor, and there are ongoing efforts to address the upstream habitat.
Certainty of Success:	**Med**	The certainty of achieving the stated benefits in the proposal for the short-term is high. Increase carrying capacity of the lake and increased growth rate and survival of the fry will result in increased smolt production. The potential run-size of adults is expected to be 196,000 sockeye, an increase of 366% above the average of 42,000 adult fish over the past 50 years. Some uncertainty does exist concerning the sustainability after fertilization is stopped. The Quinault ecosystem is staved for nutrients, due to the low adult returns. The applicant stated that fertilization of Lake Quinault is not forever, only until salmon stock production and system productivity is sufficient for ecological efficiency.

Project Comments: Lake fertilization has been done successfully in Canada a number of years for enhancement purposes. This project's intent is to jump start the system to a sustainable level so that a large number of returning adults will provide the nutrients to the system. The applicant has involved a number of experts in developing this project. They are taking a comprehensive approach in developing a sockeye recovery program for Lake Quinault.

2 of 4	02-1439	R	County of Grays Harbor	Hulten Creek Barrier Culvert Correction	106,950	36,919

Description: Hulten Creek is one of several streams draining a 6-mile long Alder slough located in a lowland area between the Quinault River and the Olympic mountains just above Lake Quinault. The existing barrier culvert is 4 feet in diameter and elevated 3 feet at the outfall. Alder Slough provide spawning and off-channel rearing habitat for: chinook, coho, chum, and sockeye salmon and steelhead and cutthroat trout. Hulten Creek is one of two streams that drain the upper portion of this wetland corridor and its barrier removal would allow easy fish access to diverse habitat that includes 8000 feet of channels and wetlands that meander through old second growth timberlands bordering the Olympic National Park.

Benefit to Salmon:	**High**	This culvert replacement would provide access to 1.5 miles of good quality habitat in an old slough of the upper Quinault River that would benefit multiple species including chinook, Coho, chum, sockeye, and steelhead. PI = 23.36 based on surrogate but likely much higher.
Certainty of Success:	**High**	The culvert replacement should be relatively straightforward and is expected to immediately achieve significant benefits to salmon.

Project Comments:

3 of 4	02-1602	R	County of Jefferson	Donkey Creek Culvert	119,000	21,000

Description: This project would replace a known fish barrier on Donkey Creek, a small tributary to the Clearwater River in WRIA 21. Donkey Creek enters the Clearwater at RM .22 below a large gravel bar locally known as "Picnic Bar". The barrier consists of three concrete culverts under the Clearwater Road at Milepost 1.3, just south of Quinault Ridge road. WDFW staff identified this barrier as one needing replacement in a Jefferson County culvert inventory. The project would open up 1.4 miles of rearing area for coho, chum, cutthroat, steelhead, and Dolly Varden/bull trout.

Benefit to Salmon:	**Med**	This project would replace 3 culverts that are considered 33% passable and would open access to 1.25 miles of stream habitat and benefit multiple species including Coho, steelhead and possibly chum and bull trout.
Certainty of Success:	**High**	The culvert replacement is relatively straightforward but fully achieving benefits depends upon removal of upstream culvert.

Project Comments:

4 of 4	02-1530	R	Quinault Indian Nation	Salmon River Trib 21-0143 CulvertBarrier	125,300	23,000

Description: This project would replace a fish barrier culvert on a WRIA # 21-0143 tributary to the Middle Fork of the Salmon River. The culvert is located on the tributary stream 110 feet above the Salmon River at RM 13.4. Removal and replacement of this culvert with an adequately sized culvert pipe arch or open bottomed arch will provide unimpeded access to 0.8 miles of spawning and rearing habitat for coho, steelhead and cutthroat. This road provides access to Quinault Indian Nation (QIN) lands and Olympic National Forest lands. This culvert was identified in a USFS culvert inventory and has a high priority for replacement.

Benefit to Salmon:	**Med**	This project would replace a partial barrier on the SF Salmon River that would provide improved access to 0.8 miles of good quality stream habitat that would benefit coho and steelhead. The limited amount of habitat accessed lowers the benefits.
Certainty of Success:	**High**	Some uncertainty exists about the culvert or bridge design, but either way the project is likely to achieve the stated benefits to salmon.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

San Juan Co CD Lead Entity

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 of 2	02-1467 N	Friends of the San Juans	Herring Spawn Survey Ph III	97,518	17,210

Description: This proposal (Phase 3) is to complete mapping of eelgrass beds and spawn deposition site inventories to identify undocumented herring spawning locations with San Juan County. The objective of these assessments are to identify subtidal vegetation supporting herring spawning using accepte protocols. Identifying and mapping the nearshore forage fish habitat gravel beaches and eelgrass beds is being conducted as Phase 1 and 2 of Forage Fish Spawning Habitat Assessment Project, funded in previous SRFB grant cycles.

Benefit to Salmon:	**Med**	This assessment will lead to increased protection on non-eelgrass spawning areas that cannot already be done through current eelgrass information and regulations. One additional benefit is that these results can help them refine the Lead Entity strategy.
Certainty of Success:	**High**	Methodology appears to be appropriate.

Project Comments:

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
2 of 2	02-1577 N	People for Puget Sound	Deer Harbor Bridge/Restoration Design	139,600	30,500

Description: This project will provide engineering & design specifications for a new bridge at Deer Harbor that impacts estuary/nearshore salmonid habitat. It will also compile the technical data to meet permit requirements for bridge construction, channel clearing, and establish baselines for post-construction restoration. Construction of the bridge has constricted tidal flux through the estuary, altered sediment deposition patterns, affected eelgrass meadows and reduced the amount of accessible habitat. There is broad community support at Deer Harbor for restoring salmonid habitats, in particular by replacing the existing bridge with one that is compatible with natural tidal flux and stream flows, as well as restoring native sub-tidal and inter-tidal vegetation. This is also a rare case of collaboration between a non-Indian community and an Indian tribe that has cultural and treaty interests in the watershed.

Benefit to Salmon:	**Med**	The watershed does not currently support salmonids, but historically supported coho and chum. This project appears to be an important estuary area, but it's not clear how this site would be prioritized with other similar areas.
Certainty of Success:	**Med**	This project focuses on improving the bridge and restoring natural estuarine functions. It's good to see project proponents working with watershed landowners to effect major renovations throughout the watershed to restore flow to Fish Trap Creek. It is imperative that flow issues be addressed in the watershed to achieve full estuarine function.

Project Comments:
CONDITION:
The Panel recommends scaling back some of the work to focus only on core tasks surrounding estuary function and design engineering. In the application evaluation proposal only perform Tasks B 1-4a & B6, C 1 (at the conceptual level to create design options), and D1.

Lead Entity Ranking and Technical Panel Comments and Rating

Skagit Watershed Council LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 18	02-1492	N	Dept of Fish & Wildlife	Wiley Slough Restoration Design	145,000	35,000
	Description: This project is to develop a 90% design to restore tidal and riverine processes to an area currently isolated by dikes and tidegates. The land is owned by WDFW and contains approximately 175 acres of former estuarine marsh and 16.3 acres of historic tidal channel. Restoration of estuarine functions to the Wiley Slough site would provide significant benefits to Chinook, Chum, Coho, Pink, Sockeye, Bull Trout, Steelhead and Cutthroat.					
	Benefit to Salmon:	**High**	The project addresses the primary limiting factor for Chinook salmon in the largest Chinook-producing basin in Puget Sound. Project will also benefit other species. Has the potential to open 16 acres lost within dikes and possibly part of another 20 acres lost to sedimentation.			
	Certainty of Success:	**Med**	Project needs to address flooding and drainage for adjacent farms. The minimum restoration would be self-regulating tidegates (SRTs) which would not really restore natural processes (and be rated low). WDFW thinks it is highly unlikely to go as minimal as SRTs. The project applicants have previously restored 200 acres of Deepwater Slough, and they believe there is commitment for a fairly complete restoration in Wiley Slough.			
	Project Comments: Great project. Glad it is number 1 on the list, and hope it is fully implemented to completion.					
2 of 18	02-1616	R	Seattle City Light	Vandersar Restoration	170,000	140,400
	Description: The Project will take place on a 130-acre parcel located on Ross Island Slough in the middle Skagit River. Seattle City Light is acquiring this property through a separate fee-simple purchase. This area provides important spawning and rearing habitat to Chinook, Coho, Steelhead, and Bull Trout. Approximately 29.4 acres of riparian and wetland habitat will be restored along the slough and Anderson Creek. The existing road crossings on the slough will be replaced with bridges, restoring access to a 6-acre oxbow.					
	Benefit to Salmon:	**Med**	The riparian restoration along Ross Slough is important multi-species floodplain habitat (Chinook, coho, bull trout, pink), but it is a moderate length of channel (3000 feet). The Anderson Creek portion of the project will predominantly benefit coho, and the single species benefit is a lower ranking.			
	Certainty of Success:	**High**	The riparian restoration and replacement of culverts with bridges are well-accepted techniques.			
	Project Comments:					
3 of 18	02-1625	C	Skagit County Dike District #3	SF Skagit Levee Setback Acq. & Rest.	902,270	165,000
	Description: This project will complete acquisition & restoration of 37 acres of mainstem habitat along the south fork Skagit River. 2500' of existing levee will be removed and setback adjacent to county road. The area riverward of the existing levee contains off channel and high flow channels with excellent riparian vegetation. The properties will be naturally restored to off channel/wetland and riparian habitat providing multiple benefits to 5 salmon and 2 trout species. Tidal back-water effects are present at the site and is partially inundated twice daily by tidal activity.					
	Benefit to Salmon:	**Med**	The project will benefit all anadromous species and addresses a major limiting factor. It was rated medium because of the limited channel length and habitat area that would be restored. The project would have rated high if dike setback would have occurred on the opposite bank. It is unlikely to greatly increase the amount of high quality habitat. The proposed acquisition is on the inside of a meander bend with a dike remaining on the outer edge; therefore, the river is unlikely to form significant side channels within the newly undiked area.			
	Certainty of Success:	**High**	This type of project has worked well in other areas, such as the Puyallup River. Applicant stated that complete removal of rock would occur. Property has already been purchased, and structures will be removed.			
	Project Comments: **CONDITION:** They should work with the Council's Restoration and Protection Committee to: determine fate of trees that need to be removed, oversee rock removal to assure that maximum floodplain interaction could occur, and management of invasive species. Great project.					
4 of 18	02-1561	R	City of Mount Vernon	Edgewater Park Off-Channel Restoration	333,000	227,000
	Description: This project will help construct approximately 34 acres of restored off-channel sloughs and reconnect isolated habitat to the Skagit River. Edgewater Park is in the City of Mount Vernon and provides key protection and shelter habitat to all salmon species at various life stages. A SRFB-funded feasibility study (00-1745N) determined the most cost effective and sustainable method for restoring this area. A DNR ALEA grant has allowed design, engineering and permitting to proceed.					
	Benefit to Salmon:	**High**	This project is located on 34 acres of slough habitat, which is a high priority floodplain of the Skagit River that would provide important rearing habitat to multiple salmonid species. The construction of off-channel sloughs and reconnection of isolated habitat addresses a major limiting factor.			
	Certainty of Success:	**Med**	Does not really restore natural processes and may require long-term maintenance. City of Mount Vernon has committed to maintenance.			
	Project Comments: Good opportunity to enhance public education and improve an important type of habitat.					

5 of 18	02-1563	R	Swinomish Indian Tribe	Fornsby Creek SRT	285,000	343,800

Description: This self-regulating tidegate (SRT) project is a fish passage and habitat restoration project located along the Swinomish Channel of the Skagit River delta. The project proposes to replace existing impassible tide gates with SRTs to enable passage, restore tidal influence to the channels, and increase the available habitat for all salmonid species. The project will also restore 1.3 miles of the re-opened channel's riparian habitat. In total, the project will re-open more than 5 miles of channel to fish and improve over 50 acres of aquatic habitat.

Benefit to Salmon:	**Med**	The project will mostly benefit coho and partially restores some natural processes by opening about five miles of coho habitat and restoring 1.3 miles of riparian vegetation. While the wall-based channel has decent habitat with cool water, Fornsby Creek has warm water temperatures, reaching upwards of 20oC.
Certainty of Success:	**Med**	There is a concern about warm water temperatures, and full natural processes are not being restored and because of this, it isn't rated high. There are further concerns about land use constraints to fully achieve benefits to salmon. The project sponsor wants to demonstrate that delta restoration can occur without saltwater intrusion into agricultural lands.

Project Comments:

6 of 18	02-1620	A	Skagit Land Trust	Minkler Lake Acquisition	237,150	41,850

Description: The project proposes to purchase approximately 107 acres in and around Minkler Lake, which is a mile-long remnant oxbow lake located in the Skagit River floodplain. The property encompasses most of the lake and wetland system providing rearing habitat for juvenile Coho salmon and for sea-run Cutthroat trout, which access the lake through Childs Creek. SLT will also explore partnership and funding opportunities for preferred restoration options and for additional acquisition, if appropriate.

Benefit to Salmon:	**Med**	The project will acquire 107 acres of Skagit River floodplain habitat, although primarily small creeks with moderate quality habitat conditions. The project primarily benefits a single species (Coho) and protects a habitat type known to be a limiting factor.
Certainty of Success:	**High**	Project will protect 107 acres of habitat. Coho have access to lake via Childs Creek but not Wiseman Creek. This acquisition is a high priority and ranked in upper third of middle Skagit comprehensive habitat inventory list. Property is adjacent to another wetland reserve area and protects a major feature of the floodplain landscape.

Project Comments:

7 of 18	02-1566	N	Skagit Land Trust	Nookachamp Watershed Invent & Assess	34,850	6,150

Description: The project is to conduct an inventory of properties in the Nookachamps watershed to identify and prioritize areas in need of protection and restoration. This assessment also refines the current "combination project" evaluation system used by the Skagit Watershed Council. Nookachamps Creek supports Chinook, Chum, Coho, Pink and Sockeye salmon, and Steelhead and Sea-run Cutthroat. Much of this watershed is under severe pressure for conversion from forestry and agriculture to residential land use, as a large portion is in the Mt. Vernon urban growth area.

Benefit to Salmon:	**Med**	The watershed provides habitat primarily for coho. Limited quantities of habitat for other species exist, but are located in highly degraded areas. It's not clear how this drainage would be prioritized with numerous high priority drainages that require protection/restoration of watershed processes.
Certainty of Success:	**Low**	The goal of the project is to "preserve salmon habitat", but the Nookachamps has several major problems; most relating to agricultural land use. The Skagit Application of the Strategy rated the watershed "impaired" for peak flow, water quality, sedimentation, and riparian conditions. It also is on the 303(d) list for several parameters (esp. temperature and nutrients) and has dikes in the lower watershed. It seems unlikely that much habitat will be identified for protection, as most will require extensive restoration to be functional (the most upstream properties are an exception, but they provide habitat to less species, plus fish will still need to go through the gauntlet downstream). Some problems such as land cover vegetation are unlikely to be restored.

Project Comments: Why was the Nookachamps chosen instead of other areas with more multi-species use and less degraded habitat? Of what use would it be to restore or preserve upstream habitat, when the lower reaches are so degraded? Project does initiate landowner contact.

8 of 18	02-1569	R	Skagit Fish Enhancement Group	Skagit Fish Passage Improvement	339,489	59,910

Description: This project proposes to assess habitat conditions above 35 identified fish passage problems throughout the Skagit watershed, prioritize the results, and design and implement 3 out of the top 10 identified projects. Approximately 20 miles of habitat is isolated as a result of the 35 barriers. SFEG will restore access to high priority spawning and rearing habitat utilized by all 5 salmon species, Steelhead and Sea-run Cutthroat.

Benefit to Salmon:	**Med**	This is a medium benefit with the condition that they revise their list of 35 culverts after the Skagit System Cooperative and SSHIAP finish the GIS prioritization process for culverts (see below). Project will benefit primarily coho. The SSC is layering gradient and channel width onto the culvert map to coarsely find higher priority culverts. The culverts also will have fish use information and the extent of blockage information added to the maps so culverts that provide greater benefit can be addressed.
Certainty of Success:	**Med**	Straightforward assessment. It isn't rated high because no one knows which three barriers will be addressed, creating uncertainty to the extent of benefits to be achieved (what if there aren't three barriers in this group of 35 that have a PI greater than 20 or so?).

Project Comments:
CONDITION:
Use the GIS layers to check their list of 35 culverts with potential revision, if higher priority culverts are identified. This coarse prioritization that takes into account the type of blockage (complete, partial, unknown), the quantity of blocked habitat, the type of blocked habitat (gradient), and number of species blocked.

9 of 18	02-1619	N	Skagit Conservation Dist	Clear Valley Restoration Assessment	128,000	23,000

Description: This assessment will evaluate habitat conditions on a 786-acre dairy farm east of Mt. Vernon, which is currently under negotiations for purchase by the Trust for Public Land, and includes 660 acres of Skagit River and Nookachamps Creek floodplain. This project area encompasses over three miles of salmonid habitat, utilized by all species, and lacks riparian vegetation, has channelized streams, has isolated off-channel rearing habitat, has a disconnected floodplain, and filled historic channels. 30% design and engineering plans will be developed for high priority restoration projects.

Benefit to Salmon:	**Med**	This project is more focused in general than previous Nookachamps project, and geographically centered on the lower reaches, where more salmon species have been documented and where more habitat impacts exist. It was not rated high because it is still predominantly a coho watershed and because there are serious habitat problems to overcome. It's not clear how Nookachamps watershed would be prioritized with other tributaries in the Skagit.
Certainty of Success:	**Med**	Although an option to purchase this site has been obtained, this project depends on an acquisition that remains uncertain. The most important issue is that the study may find that causes to major problems might be outside of this land parcel and will be unable to address them, such as water quality, changes in land cover altering peak flows, and sedimentation.

Project Comments: If funded, the applicant should work closely with the Restoration and Protection Technical Committee to develop restoration options.

10 of 18	02-1571	R	Skagit Conservation Dist	Beck/Hambright Fish Passage	15,500	4,100

Description: The project will remove a collapsed wood-and-earth farm crossing from the an off-channel slough of the Skagit River, and replace it with a fully-spanning light-weight bridge, which will open up approximately 1.1 acres of rearing habitat. The riparian vegetation along the slough is degraded and consists primarily of blackberry thickets and nettles, which will be removed and replaced with native riparian trees and shrubs. LWD will be placed in the channel to protect the bridge and provide habitat features for Coho and Sea-run Cutthroat.

Benefit to Salmon:	**Low**	The fish passage improvement would open and enhance 1.1 acres of habitat across 400 meters of side channel slough in a priority floodplain area off of the Skagit River. This is rated low because it benefits a very limited number of species (coho) and has a very low PI (5.8).
Certainty of Success:	**Low**	The fish passage improvement is straightforward, although the significant modifications that have occurred to the habitat, uncertainty about current water quality and temperatures, and a partial barrier downstream lowers the certainty of achieving significant benefits. The bridge span is too short and the remaining restoration has some uncertainty (riparian maintenance).

Project Comments:

11 of 18	02-1631	R	Skagit Fish Enhancement Group	Ennis Creek Restoration	337,025	59,475

Description: The project will move Ennis Creek, which runs in a ditch for 1,000 feet before flowing into the Samish River through an undersized culvert, to its historic channel across the road. A new bridge crossing will be installed with help from Whatcom County and 600 feet of old stream channel will be re-created, spawning habitat will be enhanced through natural gravel deposition, and LWD will be installed for habitat complexity. The project is anticipated to result in a gain of at least 3,716 sq m of Coho, Steelhead and Cutthroat spawning habitat, alleviate fish stranding and redd damage.

Benefit to Salmon:	**Med**	While mostly benefiting a single species (coho), it will also partially restore natural processes. Culvert is not a barrier but is undersized and will be replaced by a bridge.
Certainty of Success:	**Low**	The property ownership and landowner willingness remains uncertain, and there is uncertainty with re-channelization in a limited area.

Project Comments:

12 of 18	02-1618	A	Skagit Conservation Dist	Jeanne Glick Conservation Easement	63,580	11,220

Description: The project is to acquire a 27.8 acre conservation easement along ~650' of Anderson Creek, a tributary to the Skagit River, which provides habitat for Chum, Coho and Cutthroat. The property is east of Sedro Woolley and contains a mature riparian forest, protecting spawning and rearing habitat.

Benefit to Salmon:	**Med**	The conservation easement will be on approximately 28 acres including habitat for chum and coho on 1300 feet of two streams in a priority area of the Skagit strategy. The limited area of protection lowers the benefits.
Certainty of Success:	**High**	Skagit County will hold the easement.

Project Comments: The project has a very low cost.

13 of 18	02-1497	R	Skagit Fish Enhancement Group	NP Creek Fish Passage Improvement	79,214	13,979

Description: The project is to remove an old driveway bridge and concrete sill on NP Creek, a tributary to upper Samish River, with a 35-foot beam bridge and rock weirs. The project will provide access to 1.5 miles of spawning and rearing habitat for Coho, Cutthroat, and Steelhead, and builds upon a previous fish passage barrier that was removed 50 meters downstream of this site. During the '01/'02 spawning season, SFEG recorded 2,933 live Coho between the mouth and the barrier. Spawning area is limited and only 461 redds were reported.

Benefit to Salmon:	**Med**	Although this project primarily only addresses coho, it is ranked medium because its PI is moderate (16.9). The project opens 1.5 miles of forested habitat.
Certainty of Success:	**Med**	The project would replace an existing bridge with a new one. The concrete sill is the fish passage problem, but if removed the bridge integrity is jeopardized, thus requiring the bridge to be replaced.

Project Comments: The project is cost-effective.

14 of 18	02-1652	R	Skagit System Cooperative	Finney Creek Riparian Restoration	210,592	37,164

Description: The purpose of this project is to restore shade-tolerant conifer species such as Cedar and Hemlock to riparian areas of Finney Creek, a tributary to the Skagit River. Conifers, which grow larger and decay slower, are needed to improve cover habitat, to form pools, to capture sediment and to anchor log jams, in riparian areas dominated by young stands of hardwoods. Restoration activities include planting the trees, eliminating shrub competition, and removing smaller existing alders to provide growing space for conifers. Finney Creek supports all five salmon species.

Benefit to Salmon:	**High**	The project addresses the problems of a lack of conifer LWD and pool habitat in a medium sized stream used by multiple species of salmon. The project will restore 8,000 feet of stream length over the long-term.
Certainty of Success:	**Med**	There is some uncertainty with the long-term success of the conifer restoration, plus the project needs cooperation from the private timber company. However, many of the sedimentation problems upstream of this have been addressed.

Project Comments:

15 of 18	02-1627	A	Skagit County Public Works	Telegraph Slough/Knudson Acquisition	1,000,000	1,000,000

Description: The project is to acquire the "Knudson Trust" property, a 200-acre site containing intact, yet isolated, salt water oxbow/slough habitat, historically part of a larger slough system connecting to Padilla Bay and the Swinomish Channel. The property, located between State Route 20 and LaConner, is the first step to restore critical estuary aquatic habitat to support the recovery of both Chinook salmon and Bull Trout. Future restoration activities, including reconnecting the isolated remnant channels and oxbows will be based on a future feasibility study of the area.

Benefit to Salmon:	**Med**	The project is acquisition only of isolated habitat. If fully restored, this area will provide important rearing habitat for multiple species and the benefit then would be high. Because partial restoration was not proposed with project, and it is not accessible to fish in its current state, it is unfortunately rated medium at this time. With further development on these issues, it could be a great project.
Certainty of Success:	**Low**	The future of this property is very uncertain because no restoration alternatives have been identified and/or developed, and the proposed flood control project could impact the site (a flood bypass might run through this property).

Project Comments:

16 of 18	02-1641	N	Skagit County Dike Dist #12	Whitmarsh/Gages Levee Setback Assessment	104,000	25,000

Description: This project will provide an assessment and preliminary design of a restoration project to restore off-channel sloughs, wetlands and adjacent riparian habitat along 5,000 feet of the Skagit River after moving levees 600 feet back from their current location. The main elements of the proposed assessment include (1) landscape processes, hydrology, and geomorphology, (2) habitat conditions and biological functions, (3) land use and community activities, (4) development and assessment of alternative restoration approaches, and (5) design of preferred alternative.

Benefit to Salmon:	**Low**	Current status of project area is highly degraded. Parcel size and configuration are relatively small and may not be adequate to restore natural processes. The project would benefit multi-species.
Certainty of Success:	**Low**	This is an assessment to artificially construct off-channel habitat. It's not clear where the old channels were located. There is a great deal of uncertainty for achieving significant benefits to salmon because of remaining acquisition needs and significant restoration work over a generally limited and isolated area.

Project Comments:

17 of 18	02-1640	C	Skagit Conservation Dist	Johnson Acq & Riparian Restoration	115,200	27,560

Description: The project is to acquire 46 acres and restore the riparian areas along ~200' of Swede Creek and ~15 acres of its floodplain, a tributary to the Samish River. This area provides habitat for Chum, Coho, Cutthroat and Steelhead. The issues being faced on this site include a lack of riparian vegetation (shade, LWD source, food and prey input, surface water infiltration and filtering, etc.) The landowner wishes to sell to a conservation entity, but he is also considering selling to others.

Benefit to Salmon:	**Med**	The project protects a moderate quantity of habitat consisting of 2000' of Swede Creek, 1500' of an unnamed tributary, and 15 acres of floodplain that primarily benefits coho. The site was logged 10-20 years ago and is 75% forested. Currently the riparian habitat is good on one side of the stream, but poor on other. The significant amount of upland habitat on the property and small area of habitat limits the benefits to salmon.
Certainty of Success:	**Med**	

Project Comments:

18 of 18	02-1484	R	County of Skagit	Inner Hart Slough Habitat Enhancement	245,900	45,000

Description: The project is to design and implement the enhancement of 4,600 m2 of existing Hart Slough side channel habitat between the Skagit River and the 50,000 m2 pond on inner Hart Island. Also, 22,000 m2 of agricultural land will be planted with native vegetation and placed in a conservation easement (3rd Rd. SRFB project, 01-1341A). As outlined in the Hart slough feasibility study (GSRO project, 99-1945N) the inner pond is isolated much of the time, is in need of constant flows, and needs improved ingress and egress for juvenile salmonids.

Benefit to Salmon:	**Med**	This habitat enhancement project could provide benefits to multiple species, but information on species use was limited, and the project does not address some of the other significant watershed processes that are limiting salmon use of the area.
Certainty of Success:	**Low**	The technical panel had great concern over potential maintenance issues, such as filling in with sediment and flow issues. The engineering hasn't been done to assess these issues.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

Snake River Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 4	02-1544	R	Columbia Conservation Dist	Tucannon River Screens Phase 2	116,550	20,568
	Description: This project provides a cost share to landowners in the Columbia CD's and WDFW's Voluntary Screen Compliance Program. Phase 1 identified and obligated 40 screens for diversions on private properties. This project, Phase 2, identifies and funds additional screens in the Tucannon watershed. Regionally, fish barriers and screens are the highest priority for action due to immediate and long-term benefit for ESA-listed spring and fall Chinook, bull trout and steelhead. Partners include WDFW, Department of Ecology, Walla Walla Community College, and landowners.					
	Benefit to Salmon:	**Med**	Would screen 20 diversions in a high priority area containing chinook, steelhead and bull trout. Screening would help prevent direct mortality of fish, but stream restoration work and flow augmentation would be necessary to fully achieve benefits to fish.			
	Certainty of Success:	**High**	Project proponent has a high success rate with these types of projects.			
	Project Comments: Screening projects will be monitored and regulated by DOE.					
2 of 4	02-1543	R	Walla Walla Co Cons Dist	Walla Walla Urban Fish Screens & Meters	318,646	56,232
	Description: The Walla Walla Conservation District, in cooperation with private landowners, will oversee the installation of fish screens and meters on 100 small, urban irrigation pump diversions on fish bearing streams in and around the cities of Walla Walla and College Place. This will address low flows for steelhead and reintroduced spring chinook and the mortality of juvenile salmonids due to entrainment in irrigation withdrawals. Partners include WDFW's Voluntary Screen Compliance Program, the Department of Ecology, and Walla Walla Community College.					
	Benefit to Salmon:	**Med**	Would screen up to 100 diversions in a priority rearing area with chinook, steelhead and bull trout and some potential for minor increases in stream flow. Benefits are medium due to highly urbanized or modified stream systems in Mill, Yellowhawk and Garrison Creeks. Screening would help prevent direct mortality of fish, but stream restoration work and flow augmentation would be necessary to fully achieve benefits to fish.			
	Certainty of Success:	**Med**	Project proponent has a high success rate with these types of projects. Project relies on the landowner to monitor the water right. Water rights need to be verified with DOE before any project is implemented. There is no guarantee that water savings will stay in stream for fish. Other avenues for conservation associated with these confirmed water rights should be visited. The cost-benefit of this project is questionable.			
	Project Comments:					
3 of 4	02-1540	R	Columbia Conservation Dist	Touchet River Screens Phase 2	116,550	20,568
	Description: This project provides a cost share to landowners in the Columbia CD's and WDFW's Voluntary Screen Compliance Program. Phase 1 identified and obligated 30 screens for diversions on private properties. This project, Phase 2, identifies and funds additional screens in the Touchet watershed. Regionally, fish barriers and screens are the highest priority for action due to immediate and long-term benefit for ESA-listed spring and fall Chinook, bull trout and steelhead. Partners include WDFW, Department of Ecology, Walla Walla Community College, and landowners.					
	Benefit to Salmon:	**Med**	Would screen 30 diversions in a priority area with chinook, steelhead and bull trout. Screening will help prevent direct mortality of fish, but stream restoration work and flow augmentation would be necessary to fully achieve benefits to fish.			
	Certainty of Success:	**High**	Project proponents have a high success rate in the implementation of these projects.			
	Project Comments: Screening projects will be monitored and regulated by DOE.					
4 of 4	02-1604	R	Nordheim Family	Nordheim Riparian Enhancement	18,337	3,237
	Description: This riparian enhancement project is located on private property in Upper Dry Creek, a tributary to the Walla Walla River, and an identified steelhead spawning and rearing area. This project will vegetate a riparian buffer, develop an off-site watering system, and fence out livestock to improve salmon habitat. Riparian buffer establishment will improve habitat by increasing buffer filtration function and shading, reducing direct sediment impacts by stabilizing stream banks, and provide for organic debris recruitment. Water quality will improve by reducing livestock impacts.					
	Benefit to Salmon:	**Med**	Some benefit to steelhead by addressing water temperature and sedimentation problems with shading and excluding cattle, though not a high priority stream. The stream does, however, have good habitat upstream of the project.			
	Certainty of Success:	**Med**	The landowner is highly motivated with the ability to meet the project objective Project approach is straightforward, utilizing a proven technique.			
	Project Comments: This project was developed and presented by the local landowner. Applicant is highly motivated to enhance the habitat on his property Projects like these can be used as demonstration projects to motivate other landowners within the watershed to become involved in salmon restoration.					

Lead Entity Ranking and Technical Panel Comments and Rating

Snohomish LE (WRIA 7)

LE Ranking	Project #	Sponsor	Project Name	SRFB Request	Match Amount
1 if 10	02-1629 A	Cascade Land Conservancy	Pearsons Eddy Acquisition	367,000	65,000

Description: This project will acquire 215 acres of floodplain on the lower Snoqualmie River. Federal funds will be leveraged to purchase a conservation easement on the property and for restoration of the site. These properties are part of a large-scale conservation effort to acquire and restore 560 acres, including 2 miles of Snoqualmie River shoreline. The reach has been identified as a critical corridor for Chinook and other salmonids migrating to spawning grounds. Partners in the restoration effort include Ducks Unlimited and the Natural Resource Conservation Service.

Benefit to Salmon:	**Med**	This project is targeted to address limiting factors of loss of floodplain and off-channel processes identified in the Snohomish Near Term Action Agenda and the specified focus area (III) of the strategy through acquisition of these and other parcels in the Snoqualmie floodplain. This project borders Focus Area III but is not specifically identified in the near term action agenda. Properties are for sale and being marketed for development. However, the benefit of the acquisition is dependent on future restoration as the floodplain and off channel areas will be inaccessible to fish until the dikes are removed and restoration occurs. The primary benefits of this project subsequent to restoration are the improvement of off channel habitat access and riparian conditions associated with the off-channel and wetland areas. This acquisition, without restoration, has limited benefit due to the degraded nature of the parcels and limited amount of off-channel habitat provided. Concern expressed that impounding water in this floodplain could cause fish stranding. Restoration benefits may be fairly limited due to the existing physical constraints (rip-rap throughout the reach, backwater nature of the off-channel area limiting longevity and condition of off-channel area and wetlands) of the area and design constraints (not removing rip-rap, possible SRT).
Certainty of Success:	**Low**	Funds from WRP and DU are required for successful restoration, though objectives and mission statements for these partners may be mutually exclusive and greatly affect the benefit to fish. The primary concern relates to the indefinite decision on the restoration type and the expected function of the area. Currently the proposed function may include ponding structures with tide gates, berming or fishways. None of which will achieve full floodplain function or restoration. The certainty that this acquisition will accomplish its stated benefits for fish is low. The properties are currently degraded and diked and the benefits to fish depend on connecting the floodplain to the river. However, it is uncertain that the acquisition will enable the removal of dikes. Extensive commitment from project partners shows high certainty of following through on the project both for acquisition and restoration. The primary concern relates to the benefits that can be achieved due to limitations stated in the future restoration plans. The project sponsors stated that the dikes on the properties would not be removed. This, combined with dikes on downstream properties will significantly limit the restoration of floodplain processes. These limits on natural processes may affect the long-term viability of the habitat in the channel and the riparian vegetation, as this is a backwater channel without an upstream connection to the main river. We understand the need to balance restoration needs with protection of adjacent landowners, but in this case, the benefits to fish through this acquisition will be minimal without connecting the floodplain to the river by removing the dikes. There appears to be uncertainty that this can occur at this site without affecting adjacent landowners.

Project Comments: Proposal is for acquisition-only costs for 2 parcels of a larger floodplain project, but additional acquistion funds are expected thru the WRP program, which is dependent on federal budget issues.

2 of 10	02-1623 R	Snohomish County Public Works	Snohomish R Confluence Reach Restoration	586,500	103,500

Description: This project is a reach-scale restoration effort on three miles of important spawning, rearing, migration, and holding habitat for Chinook and other salmonids on the Snohomish River, downstream from the confluence of the Skykomish and Snoqualmie rivers. Restoration will be based on a comprehensive reach-scale analysis already completed by Snohomish County. Restoration at three identified sites will include riparian planting, bank restoration, large woody debris placement, reconnection of off-channel areas, and breach design at two dike sites.

Benefit to Salmon:	**High**	Direct project benefits include the restoration of 80 acres of riparian vegetation and 3 acres of wetlands in a 3-mile reach of an identified focus area (II) of the Snoqualmie River. Riparian revegetation is already occurring in the area. Evaluation and design of dike breaching options will lead to further improvement of off channel habitat and floodplain processes; however the applicant stated that they will breach but not remove the entire dike, therefore limiting full floodplain restoration. There is documented Chinook, steelhead, and Coho spawning and rearing in the reach as well as pink, chum and cutthroat use.
Certainty of Success:	**Med**	Will Phase I & II do anything until (when/if) phase III is completed? The location of the Department of Transportation bridge adds constraints to the project. Restoration plans have been developed following a reach level analysis specific to developing project options in this area. Primary ownership for most of project area is public, providing good certainty of achieving the greatest restoration options. There is concern about support from the Snohomish County council.

Project Comments: Area is relatively unchannelized by dikes, but there are some areas of riprap. This project will remove a small area of riprap below the Highway #522 bridge.

It is suggested that full removal of the dikes should occur since this is such an important area given the cost is already very high. Additional cost is probably warranted. Design options should include this recommendation. Good detail on the monitoring plan.

3 of 10	02-1609	N	County of Snohomish	Skykomish R Braided Reach Restore Assess	150,000	35,000

Description: The Skykomish River between the cities of Goldbar and Sultan is known as the braided reach. While high quality salmonid habitat is still intact along portions of the reach, other areas have been highly modified. This proposal is to conduct a comprehensive reach-scale analysis, including data collection and analysis of channel morphology, floodplain topography, hydrology, hydraulics, and riparian conditions and habitat for Chinook and other salmonids. The goals are to fill data gaps and to flush out the ideas proposed in the nearterm strategy into effective restoration projects.

Benefit to Salmon:	**Med**	Project is looking for restoration opportunities. Reach level assessment of a documented spawning and rearing area for multiple species of salmonids. Future projects could benefit multiple species and life stages and provide baseline for monitoring. The project is located in an identified focus area (X) of the Snohomish watershed. The reach is moderately degraded with two areas where the Highway constrains the channel, but still supports salmonids. The primary concern appears to be the possibility of future development in the floodplain area, leading to further constrictions.
Certainty of Success:	**High - C**	Project is looking for pools and LWD in a dynamic equilibrium system. Similar analysis completed for the Snohomish confluence reach, which has led directly to restoration project identification and development proved to be necessary.

Project Comments:
CONDITION:
Although not clearly identified in the analysis protocol, we would like to see some evaluation of ownership, likelihood of development and potential ownership constraints be part of the assessment to increase the certainty of developing the most beneficial projects.

4 of 10	02-1643	N	King County DNR & Parks	Lower Tolt River Floodplain Reconnection	200,000	50,000

Description: A feasibility study proposed and analyzed four restoration options for the Lower Tolt Floodplain Reconnection project. The preferred alternative has been selected, and King County and the City of Seattle will complete the design, permits, and monitoring plan to restore active floodplain area in the lowe 1.1 miles of the Tolt River by setting back levees and naturalizing the restored floodplain area. This project will improve spawning and rearing conditions for salmonids, including Snoqualmie fall chinook that spawn in the Tolt River in large numbers, comprising 17.5% of annual escapement.

Benefit to Salmon:	**High**	Project is the design for a dike removal and floodplain restoration project chosen as the preferred alternative from a SRFB funded feasibility analysis. The preferred alternative restores access to 60 acres of floodplain through levee setbacks in a county park and increases potential spawning and rearing habitat in the lower 1.7 miles 2 -3 times. Tolt River provides significant spawning for fall chinook as well as other salmonid species.
Certainty of Success:	**High**	Feasibility analysis clearly outlined benefits to salmon and trade-offs between project alternatives. Chosen alternative appears to provide best cost-benefit given limitation of a major highway through the project area. Applicant clearly identified physical goals of the restoration project. Project area is in County owned park. Primary uncertainty is finding funding to implement the project once designed. Project cost is estimated at $1.9 million.

Project Comments:

5 of 10	02-1637	A	Cascade Land Conservancy	Snoqualmie River - Chinook Bend	226,312	40,000

Description: Two parcels and an access easement, bordering one of only two stretches in the Snoqualmie River that provides spawning habitat for anadromous fish, including pink, chum, steelhead, and ESA-listed Chinook, will be acquired. Acquisition of these forty-eight acres with a half mile of shoreline will complete the public ownership of contiguous properties bordering this critical spawning channel located below the confluence of the Tolt River in Snohomish County. Completing this contiguous band of public ownership protects intact habitat and provides future restoration opportunities.

Benefit to Salmon:	**High**	Acquired properties help the consolidation in a focus area to protected status and increases the restoration opportunities in the reach. Property is in a key location for future restoration and has riprap on-site that may be removed in the future depending on land use classification requirements and restoration plans. Properties upstream still are in unprotected status and could prevent some restoration options. Documented spawning of 20-25% of Snoqualmie Chinook in this area, it provides spawning for multiple species, and is a heavily diked reach in need of restoration to increase rearing potential. Consolidation of ownership increases likelihood of meaningful restoration.
Certainty of Success:	**Med**	Project needs to maintain agricultural use on the property and at this time the applicant could not say what constraints this may have on the ability to restore the property and remove riprap from the property. Potentially tied to Focus Area IV study project proposal #02-1466.

Project Comments: Applicant has started some discussion with WDFW about options for Stillwater Wildlife Area. Funding for full restoration is not in place.

6 of 10	02-1639	R	King County DNR & Parks	Raging River Preston Reach Levee Removal	200,000	50,000

Description: The objective of this project is to restore natural conditions to a reach of the Raging River by removing 1300 feet of levee and restoring native vegetation in the riparian corridor. The anticipated results include reconnecting the floodplain area to the river, establishment of a multi-threaded channel, fining of bedload materials, increased ability to recruit large woody debris, and increased habitat complexity resulting in improved spawning and rearing habita for steelhead, chinook, coho, and chum salmon. The King Conservation District will contribute a grant to this project.

Benefit to Salmon:	**Med**	Restores floodplain processes in a moderately unconstrained area of a relatively steep and confined area of the Raging River. Approximately 20 – 30+% of Snoqualmie Chinook spawn in the Raging River. Improving spawning habitat could provide additional or more successful spawning area. Medium benefit is due to the naturally constrained and higher gradient nature of this part of Raging River and the need to protect the road. There is clear benefit from the side channel area and good potential for affecting gravel sorting locally. Overall benefit to spawning Chinook may be affected by the fact that the primary spawning area downstream is on private land that may threaten overall long-term success of Raging River spawners.
Certainty of Success:	**High**	Project proposes full removal of the levee and improvements to the property where other structures were already removed. Sponsor showed detailed budget to explain cost.

Project Comments: It is suggested to construct and then monitor the channel cross-sections and longitudinal profile to assess objectives of sediment deposition, sinuosity and multiple channel development.

7 of 10	02-1642	R	Tulalip Tribe	Alpine Baldy Road Decommission	91,200	27,600

Description: This project proposes to decommission 6 miles of United States Forest Service roads in the Tye River watershed in the upper Skykomish Basin. The objective is to restore and stabilize slopes where thousands of cubic yards of fine and coarse sediments have failed over the last decade from road prisms and slopes, affecting perennial streams that have provided high quality feeding and rearing habitat for salmonid juveniles, including coho and chinook. The reaches of the Tye River near the mouths of these streams support all five salmonid species and bull trout.

Benefit to Salmon:	**Med**	The project does directly address a problem related to excessive sediment delivery to the stream channel that affects the condition of spawning and rearing habitat downstream in the Tye River. Although not in an identified focus area, multiple species of salmonids utilize this area of the Tye. Headwater location is an appropriate area for dealing with sediment sources; however, direct benefits to key salmon population centers may be limited. Benefit is greatest in the long-term. Project is a long distance from a watercourse, with lots of roads in the area, and land use is not necessarily changing.
Certainty of Success:	**Med**	High sediment load in the area may already may obscure results of this project. Sponsor has completed similar road decommissioning projects in the area, but we are uncertain that the scope of this road decommissioning project will address larger mass wasting issues there. While the project would result in a reduction of the deliveries of fine sediment, it may not be enough of the right thing.

Project Comments:

8 of 10	02-1466	N	King County DNR & Parks	Snoqualmie Focus Area IV Restoration	25,000	5,000

Description: Snoqualmie River Focus Area IV is downstream of the confluence with the Tolt River and provides spawning habitat for chinook. This project will evaluate current conditions and develop a set of restoration objectives and options along with a feasibility analysis, focusing on restoring ecosystem processes to the channel and floodplain. Focus areas include hydrology, floodplain functioning, channel meandering and geomorphology, riparian health, and sediment deposition and transport. More than 500 acres is in public ownership, providing substantial opportunity for restoration.

Benefit to Salmon:	**Med**	Although documenting habitat conditions and restoration opportunities is necessary, this project would have greater benefits if it were to evaluate, model and develop conceptual restoration plans for the area so that a feasibility study is not required next and projects can be designed and implemented as the next step. Would like to see this project done in two phases, not three. Application was not clear that full feasibility would be completed as part of this project.
Certainty of Success:	**Med**	This is a small project in a big focus area. This is very conceptual project. End result should lead directly to projects, not a feasibility study, as next step.

Project Comments: Avoid merely cataloging. Go directly to a feasibility study. Could get higher benefit and certainty if proposed an actual feasibility study instead of a simple catalog of options or feasibility analysis. It appears that they already know what is possible since most of the properties are in public ownership and have been evaluated.

CONDITION:
This project should have a minimum 30% design for preferred restoration approach at project completion.

9 of 10	02-1576	N	County of Snohomish	WRIA 7 Culvert Analysis & Prioritization	76,217	13,451

Description: Snohomish County proposes to integrate all available lists of culverts in WRIA 7 into a GIS database that will be used to prioritize and sequence future fish passage projects, as well as identify data gaps. Field surveys within WRIA 7 focus areas will resolve data gaps and calculate the Priority Index for blocking culverts. This work will lead directly to projects that address fish passage barriers that are most critical to salmon recovery in WRIA 7.

Benefit to Salmon:	**Low**	Sponsor is working from known list only, not new information, and it is not comprehensive. Inventory is limited to county land – will not identify other culverts that could be barriers in the same areas. Should find a partner that can handle the private land areas.
Certainty of Success:	**Low**	This is a road-based inventory, and does not include full stream assessment. Project is not finding new barriers. This is not a stream assessment.

Project Comments:

10 of 10	02-1481	R	Snohomish Co Conservation Dist	Riley Slough Passage Project	254,220	94,800

Description: This project will replace up to eight undersized culverts with concrete slab bridges on private properties in Riley Slough, a tributary to the Snoqualmie and Skykomish watersheds. Improving passage will increase access to upstream habitat and improve potential off-channel rearing habitat for coho, chinook, and cutthroat and bull trout during low and high flow periods. Fencing and riparian vegetation will be installed where needed to enhance the riparian buffer. Assistance with the project will come from the Adopt-A-Stream Foundation, private landowners, and volunteers.

Benefit to Salmon:	**Med**	All are partial barriers except at the northeast end of project area. This is a continuation of ongoing restoration project in Riley Slough. There are concerns about the level of fish use despite available access and improvements. Flows are intermittent in the area. Project combines passage with riparian restoration in a holistic approach. However, it is not addressing one of the primary problems problems mentioned during the evaluation, the access to Haskell Slough due to presence of dike.
Certainty of Success:	**Low**	To date, there are incomplete landowner agreements for all culverts. Project success is dependent on landowner agreements for all barriers, particularly at the downstream end. Bridge slabs may not have an adequate span and that could greatly affect slough processes and cost. May not receive a HPA. Costs are low for bridges, but important to meet site conditions. Flow issues may limit project success for fish. Some question whether these improvements are going to increase fish use in total project area.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

Stillaguamish LE (WRIA 5)

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 8	02-1589	C	Cascade Land Conservancy	Smoke Farm North Floodplain Acq & Rest	283,000	55,000
	Description: This project will acquire 125 acres of floodplain, including a ¾-mile stretch along the North Fork Stillaguamish River. Natural processes critical for maintaining and creating high-quality habitat for chinook, coho, chum, cutthroat, steelhead, and bulltrout will be restored and enhanced. Rearing habitat and refuge, floodplain connectivity and complexity, side channel sloughs and beaver ponds, and riparian diversity will be restored and maintained. Partners include the Natural Resource Conservation Service, Snohomish County, and the landowners.					
	Benefit to Salmon:	**High**	There is potentially high quality habitat along the North Fork Stillaguamish River that would benefit multiple species. Restoration would address limiting factor of off-channel rearing habitat. Side channels and beaver ponds provide excellent coho habitat and also benefit chinook, chum, steelhead and bull trout.			
	Certainty of Success:	**High**	Achieving the full benefits of this project relies on dike removal and other restoration work beyond the scope of the current project, but funding and partnerships appear to be in place for this to happen.			
	Project Comments:					
2 of 8	02-1606	R	Snohomish Co Conservation Dist	Oso Loop Rearing Habitat Restoration	105,715	76,100
	Description: This project will improve instream and riparian conditions along 2,690 feet of off-channel rearing habitat in a ditched tributary of Fry Creek on the North Fork Stillaguamish River. Restoration will include relocation of the roadside ditch system into a remnant channel, placing LWD and planting native woody vegetation. The project will provide rearing habitat for coho, chum, and pink salmon and cutthroat trout, and potential rearing habitat for chinook. Partners include Snohomish County, the Stillaguamish Clean Water District, Stillaguamish Tribe, CREP, and 2 private landowners.					
	Benefit to Salmon:	**Med**	This project addresses a very small area, only 0.5 miles of potential off-channel rearing habitat for juveniles in a significantly altered area. The cool groundwater-fed creek could provide rearing habitat, primarily for juvenile Coho. This appears to be a primarily single species project in a very small stream. There are other efforts in project area contributing to riparian enhancement.			
	Certainty of Success:	**Med**	The proximity to Oso Loop Road with direct runoff into the proposed restoration area and significantly altered condition of the site lowers the certainty of achieving significant benefits to salmon recovery. The project site is predominantly reed canary grass, an invasive species that can be difficult to eradicate.			
	Project Comments:					
3 of 8	02-1596	R	Snohomish Co Conservation Dist	Little Deer Erosion Control	262,500	47,000
	Description: Little Deer Creek is a major tributary to chinook bearing Deer Creek (an important tributary to the North Fork Stillaguamish River) and has 10 miles of anadromous and resident fish habitat used by bull trout, steelhead, and coho. In partnership with the USFS, this project will provide controlled drainage through various treatments on 13.85 miles of Little Deer Road in order to reduce risk of road failure, erosion, and sediment production in the watershed. These actions will lower negative effects on fish habitat for spawning and rearing (egg-to-fry survival/rearing survival) and water quality.					
	Benefit to Salmon:	**Med**	Little Deer Creek is critical summer steelhead habitat and provides habitat for multiple salmonid species including Coho and bull trout. While sedimentation is a significant issue, the benefit of the road improvement work over nearly 14 miles of road may not be significant compared to other sources of sediment.			
	Certainty of Success:	**Med**	Some uncertainty exists over how large of a sediment source the roads are compared to other sources in the basin and so restoration work may not lead to significant changes in habitat condition.			
	Project Comments:					
4 of 8	02-1654	P	Cascade Land Conservancy	Lower Pilchuck Creek Acquisition	406,300	71,700
	Description: This project, in partnership with the Stillaguamish Tribe, will acquire a 100-acre parcel of property on lower Pilchuck Creek near the Stillaguamish River confluence and develop an in-stream and floodplain restoration plan. Pilchuck Creek provides known spawning and rearing habitat for six species of salmonids, including a depressed population of fall chinook. Following purchase of the property, the applicant is committed to seeking funding to restore the stream channel, riparian zone, side-channel habitats, and wetlands that historically characterized the property.					
	Benefit to Salmon:	**Med**	The project area provides important spawning and rearing habitat to multiple species, particularly critical for threatened fall chinook stock, but the current habitat condition is poor with bank armoring, lack of riparian vegetation, and loss of floodplain connectivity.			
	Certainty of Success:	**Med**	Achieving the full benefits to salmon depends upon future restoration work. More negotiations are necessary with current landowner.			
	Project Comments:					
5 of 8	02-1554	N	Adopt A Stream Foundation	WRIA 5 Fish Pass Barrier Prioritization	56,970	12,350
	Description: Snohomish County, the Stillaguamish Tribe, and WDFW recognize the need to improve existing passage information in order to create a strategic approach for improving degraded passage conditions. Adopt A Stream will complete physical habitat surveys above all significant barriers and calculate Priority Index values for those barriers following the methodology outlined by WDFW. This is the final step to complete a standardized and comprehensive fish passage dataset, which will result in improved prioritization and sequencing of salmonid barrier removal projects in WRIA 5.					
	Benefit to Salmon:	**Med**	Priority areas in the Pilchuck and North and South Fork Stillaguamish will have complete priority index work done and approximately 100 barrier priority index values will be calculated. Project only includes known existing barriers.			
	Certainty of Success:	**Med**	While the 100 barriers are estimated to cumulatively block at least 35 miles of potential habitat (an average of 0.35 miles per blockage), most of the barriers are unlikely to block significant amounts of habitat (i.e., more than a mile) and thus will probably be lower priority restoration sites. While at least a few significant blockages are likely to be found, some uncertainty exists with implementing the restoration work on all of the high priority sites.			
	Project Comments:					

6 of 8	02-1595	R	Snohomish County Parks Dept	Trafton Trailhead Riparian Restoration	125,000	30,000

Description: Limiting factors for salmon in the Stillaguamish River include low summer flows, lack of refuge, rearing, and pool habitat and sedimentation.This project addresses limiting factors on a process level by conducting the riparian restoration in two stages. Phase I includes an assessment of the reach, followed by planting of twenty-five acres of floodplain and three acres of upland wetlands. Analyzing this reach in detail from a landscape process perspective is essential for determining the most effective actions, approach, and project design that will protect and restore habitat.

Benefit to Salmon:	**Med**	This assessment and riparian planting alone provides moderate benefit to salmon and does not address some of the limiting habitat factors for this area, but would be helped with dike breaching to connect more off-channel area.
Certainty of Success:	**Med**	It is not clear how riparian restoration addresses identified problems with low summer flows, lack of rearing habitat and sedimentation. The dike needs to be removed in order to achieve the full benefits to salmon.

Project Comments:

7 of 8	02-1537	N	Stillaguamish Indian Tribe	Stillaguamish Estuary Assessment	141,000	25,500

Description: Two high priority data gaps listed in the Stillaguamish strategy were a "near shore habitat inventory and use by anadromous and forage fish" and the location of "levees, dikes, and revetments that are no longer required". This project will fill these data gaps and improve the efficient use of restoration dollars. The baseline condition of the Stillaguamish estuary and its food resources within the various habitat types open to use by chinook will be quantified and inventoried. Dikes and levees will be topographically mapped using LIDAR and aerial photos.

Benefit to Salmon:	**Med**	This is likely a high priority area with the potential to benefit multiple salmonid species and address significant limiting factors; however, some of the information collected does not appear to be important for restoration project development, the goal of filling a data gap in the strategy.
Certainty of Success:	**Med**	While the LIDAR info would likely provide useful data, restoration work in the estuary would depend upon a number of other factors such as finding willing landowners before that data would be useful. The other data collection from photos and food resources doesn't seem necessary to identifying priority areas for restoration.

Project Comments:

8 of 8	02-1538	N	Cascade Land Conservancy	Stillaguamish Estuary Habitat Acq. Asmnt	28,798	5,082

Description: Degradation, including channelizing, diking, draining of historic wetlands, loss of blind tidal sloughs, and loss of riparian forests and estuarine rearing habitat, is a significant habitat problem in the Stillaguamish watershed. This project will conduct an assessment of the estuary to develop an acquisition action plan based on analysis of existing habitat condition, salmonid use, restoration potential, habitat connectivity, parcel characteristics, and indication of willing sellers. Following completion of the Action Plan, CLC will seek funding to acquire and protect priority properties.

Benefit to Salmon:	**Med**	This is likely a high priority area with the potential to benefit multiple salmonid species and address significant limiting factors; however, this effort may be out of sequence with other activities to foster communication with key landowners.
Certainty of Success:	**Med**	Working with the small number of landowners using established relationships with the local community will be more effective than having an outside entity approaching them.

Project Comments:

Lead Entity Ranking and Technical Panel Comments and Rating

Thurston County CD LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 4	02-1529	A	Capitol Land Trust	Gull Harbor Conservation	756,872	133,566
	Description: Capitol Land Trust will acquire a conservation easement that permanently protects Gull Harbor, a 30-acre estuary, with 2.2 miles of surrounding shoreline vegetation and 64 acres of adjacent upland. Gull Harbor is located on the east side of Budd Inlet, north of Olympia. It is one of southern Puget Sound's most intact estuarine environments, providing high quality habitat suitable for chum, coho, sea-run cutthroat, chinook, and prey species such as sand lance, surf smelt and Pacific herring. When all project phases have been completed, the entire estuary, 3 miles of shoreline and 700 acres of upland-riparian habitat will be protected.					
	Benefit to Salmon:	**High**	Good estuary. Protects an important estuarine area in its entirety. Nearshore and estuarine habitats considered a priority in the WRIA strategy. Benefits Coho, chum and cutthroat in the estuary and stream as well as forage fish species in the nearshore area. Threat of development is imminent. Part of a larger protection effort in the area.			
	Certainty of Success:	**High**	Easements appear to provide adequate restrictions on future development to prevent degradation to the stream and estuary system. Title restriction attached to the property. Landowner willingness established.			
	Project Comments:					
2 of 4	02-1483	R	South Puget Sound SEG	Perkins Creek Fish Passage	100,407	17,719
	Description: Perkins Creek is located in the McLane Watershed near the west boundary of WRIA 13. Perkins Creek is a multiple salmonid stream system, offering spawning and rearing habitat to chum, coho, winter steelhead and cutthroat trout. The project will remove an anadromous fish barrier culvert and replace it with a larger structure that will allow unimpeded salmonid migration at all life stages. This project will open .75 miles of critical tributary spawning habitat in the McLane Creek basin.					
	Benefit to Salmon:	**Med**	Good to open up the system. Good partnering. Replaces a total barrier to multiple salmonid species and provides access to an additional 1 mile of good quality habitat. McLane watershed is identified as a high priority watershed for protection and restoration in this WRIA. Other protection projects have occurred in the watershed to complement this action.			
	Certainty of Success:	**High**	Good upfront work. Good evaluation and conceptual design.			
	Project Comments:					
3 of 4	02-1477	N	South Puget Sound SEG	WRIA 13 Prioritization and Development	74,006	13,460
	Description: Ten projects will be prioritized and selected from the WRIA 13 barrier inventory that is currently being conducted by SPSSEG. The current SRFB funded barrier inventory identifies and evaluates anadromous barriers culverts on private roads and driveways, and provides missing data for culvert inventories completed by WDFW and Thurston Conservation District. This proposal will provide SPSSEG and cooperating partners with 30% engineered salmonid passable structure designs, cost estimates, landowner information, GIS maps, and site photographs for ten anadromous fish barriers.					
	Benefit to Salmon:	**Med**	Good to collect information and fill data gap. Next step in Barrier Inventory project. Develops designs for top 10 projects identified in the inventory. Will lead directly to the implementation of projects.			
	Certainty of Success:	**High**	Good to design the top ten projects. It is comprehensive. Prioritization needs to be based on WRIA 13 strategy and technical knowledge and reflect and/or anticipate the most up to date information.			
	Project Comments:					
4 of 4	02-1486	R	Thurston County Roads/Trans	Gull Harbor Road Barrier Removal	760,000	175,000
	Description: This project will replace a culvert on Gull Harbor Road at Ellis Creek, a tributary to Budd Inlet, north of Olympia. According to the 1997 WDFW Barrier Culvert Inventory this culvert has a Priority Index (PI) of 30.86. Three projects with higher priority have been replaced, leaving this project next to highest in the priority. Many fish species, including chum, coho, steelhead, cutthroat and rainbow use or could use Ellis Creek. The proposed 20' span, 8' high arch concrete structure will have many of the characteristics of a bridge, without the prohibitive expense.					
	Benefit to Salmon:	**Med**	Full barrier that could provide access to 2 miles of good quality habitat, but there is a downstream partial barrier (tidally influenced) that prevents the full benefits of this project being achieved in the near future. Lots of roads fill. Cost for this project is high. The downstream culvert will also be costly to fix. Regrade is a high concern. Culvert is failing so there is some additional threat to existing habitat if the culvert were to fail prior to it being replaced. This is a low priority watershed as identified in the strategy. Would provide habitat for multiple species.			
	Certainty of Success:	**Low**	Use of KCRTS is not appropriate for a natural stream system. A & E is low (13%) for such a big project. There is a high potential for the design and construction to be inadequately implemented.			
	Project Comments:					

Lead Entity Ranking and Technical Panel Comments and Rating

Upper Columbia Region LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 17	02-1634	N	Trout Unlimited Icicle Vly	Lower Icicle Reach-Level Assessment	40,375	7,125
	Description: This proposal is for a reach-level assessment of physical processes of the lower reach of Icicle Creek (2.8 river miles). The assessment will fill a primary data gap and use a protocol similar to that described by Rosgen as a Level 3 analysis, and synthesize data obtained together with existing information to develop a restoration and protection strategy for the reach. A major habitat acquisition in this reach was funded by the SRFB, and potential restoration of that habitat will be impeded without the proposed assessment.					
	Benefit to Salmon:	**High**	Lower Icicle is a short (2.8 mi) but important reach for nearly all salmonid species of the Mid-Columbia. However, development has been prevalent in the reach and it is a Category II watershed. Will provide needed direction for future projects.			
	Certainty of Success:	**Med - C**	Rosgen level lll analysis (or something similar) is probably appropriate for this stream reach to help define next steps. Assessment will fill data gaps about physical properties at the reach level but the study design should separate the study into historic channel and channel migration zone in order to be a success. Restoration potential is very limited, only enhancement opportunities may exist in this reach of the river.			
	Project Comments: Assume 4-5 cross sections will be adequate. Upstream reaches have been subject to federal watershed analysis and LFA. Several other subbasin and basin-wide assessments have been completed. TU has accomplished similar assessments in WA and generally the outcome has been very useful. **CONDITION:** The sponsor will develop a coordinated strategy working with key stakeholders to identify goals for and constraints to restoration of the lower Icicle Creek reach. The forum, including local landowners and agency representatives, will work together with the technical experts to identify important information gaps necessary to create a management and restoration plan for lower Icicle Creek.					
2 of 17	02-1524	R	Chewuch Basin Council	Chewuch Basin Irrigators Conveyance	294,360	55,000
	Description: The Project proposes targeted efficiency improvements within the conveyance canals of the three primary irrigators on the Chewuch River (Fulton, Skyline, and Chewuch). Targeted improvements (pipe and lining) will reduce seepage losses, thereby reducing diversion needs for each ditch. The project will convert a total of 4.0 miles of open ditch to enclosed or lined conveyance over 18 months. The project will result in an immediate in-stream flow return of 8-10 cfs, which is equal to the entire late season diversion of the Skyline Ditch.					
	Benefit to Salmon:	**High**	Project will return 8-10 cfs into the Chewuch River, important spring chinook and steelhead tributary to the Methow. Flow will be increased in 8 miles of lower Chewuch, improving spawning habitat for spring chinook and transportation and rearing flow for steelhead Chewuch is a category ll waterway.			
	Certainty of Success:	**High**	Additional flow will benefit all life history phases of at least two endangered species. Proven technology and monitoring would ensure that the benefits will be in place. Part of an HCP.			
	Project Comments: Final phase on 1 of the 3 ditches.					
3 of 17	02-1469	N	Foster Creek Conservation Dist	Foster & Moses Coulee Watershed Assess.	173,750	32,000
	Description: The objective is to identify current status and distribution of 'Federally Endangered' Summer Steelhead and Spring Chinook Salmon and baseline data on habitat factors limiting their success in the Foster and Moses Coulee WRIAs 44 and 50. These surveys are top priorities recommended in the USCRB Strategy(2002), Limiting Factors Report (March 2001), and by the local Citizen Advisory Group. Specific projects will be identified to improve instream passage, channel conditions, riparian habitat, water quality and increase water quantity for fish.					
	Benefit to Salmon:	**Low**	Little is known about salmonid use in these streams. What information is available indicates limited use in terms of species and life history phases. Category IV waterway.			
	Certainty of Success:	**Med**	Plan to conduct numerous assessments in 5 watersheds in 2 years and realize that this effort will not complete the task. Will be dependent on additional funding to complete the assessment.			
	Project Comments: These are the most upstream tributaries before reaching Chief Joseph dam. Appears to be strong local support for effort. Suggest finding local funding to prove their case that these basins are or can be important to salmonids, then go to SRFB for funding to implement most important projects.					
4 of 17	02-1650	A	Methow Conservancy	Methow Critical Riparian Habitat Acq	1,958,010	345,532
	Description: This proposal requests funding for conservation easement purchases on seven critical properties between the towns of Winthrop and Mazama. These easements will instigate protection of the Upper Methow Habitat Block, a corridor of extremely high-quality riparian habitat where side channels, large woody debris and spawning areas are abundant. Currently only 33 acres of private land in the reach are protected. This proposed project will protect over 1000 acres and 6.8 miles of riverfront habitat.					
	Benefit to Salmon:	**High**	Will protect high quality spawning and rearing habitat of two endangered species with conservation easements. High threat to riparian habitat by dispersed development.			
	Certainty of Success:	**High**	This group has a good track record of implementing and monitoring conservation easements in Methow. Preserves all habitat factors important to anadromous species in reach and, in some instances, provides mechanism for restoring stream function if needed.			
	Project Comments:					

5 of 17	02-1414	A	Chelan/Douglas Land Trust	White River Habitat Acquisition	2,462,855	434,622
	Description: The Chelan-Douglas Land Trust (CDLT) seeks to permanently protect the highest priority riparian, wetland, and floodplain habitat along the White and Little Wenatchee River through acquisition of land and conservation easements of approximately 500 acres from willing landowners. CDLT will prioritize acquisition opportunities and purchase the highest ranking available parcels. This is one of the most productive spawning and rearing areas in the region for endangered chinook, endangered steelhead, threatened bull trout, and the largest sockeye run in the Columbia Basin.					
	Benefit to Salmon:	**High**	Protects high quality spawning and rearing habitat for 4 species (2 endangered.) through land purchase (and perhaps easements) in Category I waterway. Key habitats for two species. Integrates well with other protection and restoration projects in vicinity.			
	Certainty of Success:	**High**	Protects all phases of life history requirements and allows natural processes to occur. Will stop impairment to channel migration zone in purchase areas. Good monitoring plan. Land trust has been in business for many years (17).			
	Project Comments: WDFW and USFS not active participants but would be consulted. Proactive approach because development threats are strong. Good community support.					
6 of 17	02-1638	C	Upper Col Reg Fish Enhance	Eyhott Isl. & N. Shore Acq & Restoration	480,300	104,065
	Description: This project will protect and restore riparian habitat on Eyhott Island and the North Shore property at the confluence of the Okanogan/Similkameen Rivers. The property acquisition of 161 acres include some 4.5 miles of spawning habitat supporting the largest concentration of summer chinook in the watershed. Restoration will include exclusion fence, bank stabilization and planting. The North Shore property is expected to play hos to the site of a Native Plants Nursery and a Salmon Interpretive Center (funded through alternate sources).					
	Benefit to Salmon:	**Med**	Protects habitat in stream reach heavily spawned by summer Chinook in 2001 and used as transportation corridor for other species. Allows restoration (reveg and livestock exclusion) of riparian habitat, which will aide in slowing sedimentation of nearby spawning and rearing. Partially addresses perhaps two of several limiting factors in the reach. Primarily a single species focus with secondary benefits to other salmonids.			
	Certainty of Success:	**Med**	Local impact of bank hardening on bank erosion needs to be addressed in future restoration work.			
	Project Comments: Heavy use by chinook is likely the result of rearing pond releases. Category II and III reaches.					
7 of 17	02-1522	R	Methow Salmon Recovery Found	Early Winters Ditch Co Irrigation Improv	67,595	14,500
	Description: The Project proposes to complete a water savings project on Early Winters Creek partially funded under early action grants in 1999. This proposal includes installation of the final 5 irrigation wells, ditch conveyance loss improvements (liner at identified location), replacement of a lateral headgate, and installation of ramp flume measuring devices. The diversion (15-20 cfs) is shut down late season once flows in the Early Winters Creek reach 35 cfs. The wells allow for continued operation of farms and ranches.					
	Benefit to Salmon:	**Low**	Completes earlier project for restoration of additional instream flow (15-20 cfs) to 1.4 miles of spawning and rearing habitat for 3 species (2 endangered) during low flow period on Category I waterway. Final phase. Achieving the instream flow benefit does not depend on drilling these wells.			
	Certainty of Success:	**Low**	Development of these wells can easily be implemented, However, they will not have a bearing on successfully achieving needed instream flows.			
	Project Comments: According to consultant, withdrawal for these wells should have little effect on flow in the Methow River. One mile from river and generally pumped for short periods of time. Completes actions for special use permit.					
8 of 17	02-1644	A	Methow Salmon Recovery Found	Lower Twisp River Habitat Acquisition	270,650	47,999
	Description: This project proposes to acquire the remaining three key parcels(14.74 acres) on the lower Twisp River that were not acquired in past proposals. The acquisition of these parcels completes the purchase and protection of 24.24 acres of contiguous riverfront, side channel, and riparian habitat. The acquisition will assure permanent protection for spawning, rearing, and over-wintering habitat for endangered spring Chinook salmon and summer steelhead trout.					
	Benefit to Salmon:	**High**	Benefits rearing life history phase of two species, primarily focusing on spring chinook and off-channel rearing habitat (a type of habitat that has been lost due to bank hardening and channel simplification). Four cfs will be provided to the reconnected and restored side-channel rearing function.			
	Certainty of Success:	**High**	Spring chinook seek out this type of habitat for spawning and rearing. Assuming upstream entrance attracts juveniles, use will be assured. Higher levels of flow might be sufficient to attract spawning fish.			
	Project Comments: Connects upper and lower properties acquired and restored from previous grants. Upstream water intake needs to be fail-safe to ensure side-channel does not dewater once fish are attracted into habitat.					
9 of 17	02-1526	R	Okanogan Co Conservation Dist	Upper Beaver Diversions Renovation	285,502	78,045
	Description: This project will replace push up dams and canal lining of two irrigation ditches: the Marracci and Batie Ditches, located on private property in the Beaver Cr. drainage, a tributary of the Methow River. Piping/lining 13,900' of these canals will contribute 3 cfs to instream flows. This project will replace the two diversions with Rosgen-type rock weirs allowing passage at low flows. These projects have been identified by a SFRB-funded landowner-based Coordinated Resource Management (CRM) planning effort.					
	Benefit to Salmon:	**Med**	Habitat currently is inaccessible to anadromous salmonids. Instream flow benefits (3fcs) would occur only downstream to the next irrigation diversion. Juvenile spring chinook use lower end of Beaver Creek and steelhead adults have as yet an undefined upstream distribution. Presence of bull trout hybridization lowers the rating.			
	Certainty of Success:	**Med**	Technology to implement project is mature and instream flow improvement will benefit all life history stages of species present. Instream flow benefit is limited only to upper reach.			
	Project Comments: Category II waterway, 303(d) listed. This project was identified through the Beaver Creek CRMP process, an earlier funded SRFB project.					

10 of 17	02-1496	R	Okanogan Co Conservation Dist	Lower Beaver Piping	128,957	54,900

Description: This project will pipe two unlined irrigation ditches, the Fort-Thurlow and Miller Ditches, in the Beaver Cr. drainage, a tributary of the Methow River. Piping/lining 5750' of these canals will contribute approx. 1.2 cfs to instream flows. These projects are a continuation of a SRFB-funded diversion removal program and have been identified by a SFRB-funded landowner-based Coor. Resource Management (CRM) planning effort. The cumulative effect will be to augment instream flows to the extent that dewatering due to irrigation withdrawals will be eliminated in all but drought years.

Benefit to Salmon:	**Med**	Water saved (1.2 cfs) will benefit what anadromous fish that are present in this reach of Beaver Creek. However, junior water right downstream (2nd diversion) will take some of "saved" water reducing overall value project. Water savings will not be available in drought years.
Certainty of Success:	**Med**	Technology to accomplish project is mature, resulting in water savings that can benefit all life history phases of species present. Amount of actual water savings left in stream to mouth is unclear.

Project Comments: This project was identified through the Beaver Creek CRMP process, an earlier funded SRFB project.

11 of 17	02-1647	N	Okanogan Co Conservation Dist	Twisp River Coordinated Resource Mgmt	66,480	13,000

Description: The Coordinated Resource Management Plan (CRMP) is a planning and problem solving tool that helps landowners and governing agencies identify and solve problems, by bringing the effected parties to the table and discussing options and potential solutions. The CRMP process will be used to look at water issues on private land with willing participants in the Twisp River drainage of the Methow Valley. The plan will provide recommendations for methods of water conservation and a list of potential future salmon recovery projects.

Benefit to Salmon:	**Med**	A problem-solving tool for the Twisp River basin. Area has been experiencing landowner mistrust and strife for many years. However, progress seems to be occurring in basin with existing resources. Goal is to identify and recommend water conservation methods and potential salmon recovery projects. Would benefit two endangered species.
Certainty of Success:	**Med**	Applicant has had comparable successes in other basins.

Project Comments:

12 of 17	02-1633	R	Chelan County Public Works	Squilchuck Creek Culvert Replacement	377,670	66,650

Description: This project will replace an existing culvert on Squilchuck Creek, tributary to Columbia River, with a bridge. A natural creek bed will be created and intermittent resting ponds to facilitate fish migration in Squilchuck Creek, allowing access to approximately 1 mile of spawning and rearing habitat for ESA listed Endangered salmonids (steelhead and spring chinook) as well as summer chinook juveniles and redband rainbow trout. The design is 90% complete and partial funding has already been committed through Chelan County.

Benefit to Salmon:	**Low**	Provides passage of a total barrier culvert to approximately 1 mile of habitat, described as primarily steelhead. Some chinook rearing may occur and introduction of coho is a potential. There are existing barriers upstream.
Certainty of Success:	**Low**	Needs additional upstream and downstream channel work.

Project Comments: Category IV waterway. Stream has series of 6 passage barriers up to RM 8.2. Restoration of the waterway will be a long and expensiv process.

13 of 17	02-1645	R	Okanogan Co Conservation Dist	Beaver Creek Riparian Fencing	34,905	11,891

Description: This project would provide riparian fencing on 3 different property ownership's on Beaver Creek, which is a tributary to the Methow River. Approximately 3000 feet of fence will be constructed to protect and restore the riparian vegetation that is severely impacted by heavy recreational use on two of the sites. The third ownership is on private land with approximately 5000 feet of riparian fencing needed. When current SRFB funded projects that remove existing barriers are completed listed stocks will have direct access to this effected reach.

Benefit to Salmon:	**Med**	Riparian fencing on state, federal and private lands on Beaver Creek is designed to keep people and livestock out of the riparian zone. Fish use is unclear in the immediate vicinity. Will use passive vegetation restoration initially. Adds to existing CREP program on private lands.
Certainty of Success:	**Low**	Buffer width in combination with site limitations lowered the rating.

Project Comments: This project was identified through the Beaver Creek CRMP process, an earlier funded SRFB project.

14 of 17	02-1649	N	Pacific Biodiversity Institute	Okanogan River Riparian Assessment	254,743	44,955

Description: The sponsor will use GIS analysis and field surveys of 75 miles of the Okanogan River to identify where protection and passive restoration of riparian habitat is possible. Loss of riparian vegetation has contributed to elevated water temperatures and increased sediment carried to the river. Areas will be prioritized for restoration, the sponsor will work with landowners and restore a pilot area for monitoring, education and training. Watershed Committees of the landowners will be formed to protect this habitat.

Benefit to Salmon:	**Med**	Riparian loss identified as a prominent limiting factor in basin, and this project assesses riparian condition on 75 stream miles, documents change, identifies functional and degraded habitats, implements pilot project. Will benefit 4 species (1 endangered). Assessment may concentrate on too few factors. This or similar assessment should be done before embarking on major riparian restoration program/habitat purchase.
Certainty of Success:	**Low**	Assessment technique contains ground-truth element, tests efficacy with pilot project, and monitors change over 5-year period. However, project may be too general to be site specific. Project needs to look at all potential sources of water temperature problems.

Project Comments: Project does not appear to have community support.

15 of 17	02-1646	R	Okanogan Co Conservation Dist	Beaver Creek Livestock Bridges	49,966	30,814

Description: This proposal is to construct, on private property, two (2) bridges across Beaver Creek, a tributary of the Methow River. The landowner has requested assistance in development of a conservation plan, including measures to protect and enhance the vegetation along Beaver Creek. Without these bridges the cattle would still be able to get into the stream at the crossing points as the landowner needs the ability to transfer cattle from one side of the creek to the other regularly.

Benefit to Salmon:	**Low**	Livestock bridge addresses one limiting factor in reach. Limited salmonid use in this reach (RM 4.6).
Certainty of Success:	**Med**	Structure will keep cattle out of stream when transferring to new holding area.

Project Comments: Sponsor should combine this project with earlier riparian fencing project at same location.

16 of 17	02-1653	R	Okanogan Co Conservation Dist	Salmon Creek Fish Habitat Restoration	599,837	112,153
	Description: This project proposes to complete seventeen site-specific projects to address problems such as stream bank & bed stability, lack of riparian vegetation & lack of large woody debris, & poor geomorphic conditions in Salmon Creek, a triburary of the Okanogan. To address these altered conditions the following treatments are proposed: log & rock vanes, root wad revetments, vegetative plantings, fencing & development of alternative water sources for livestock in reaches 3-6. The implementation of these treatments would provide the following benefits to the re-establishment of endangered steelhead and spring chinook.					
	Benefit to Salmon:	**Low**	Blockage at mouth of creek hinders adult passage of steelhead. Single species. Proposes channel and restoration of several miles of habitat.			
	Certainty of Success:	**Low**	Although restoration activities attempt to address many of identified habitat problems, significant risk remains that actions will not be able to accomplish desired results. This project should be proposed after passage and flow issues are addressed.			
	Project Comments:					
17 of 17	02-1651	A	Central Wash University	CWU Okanogan River Easement Right	1,826,000	374,000
	Description: The purpose of this project is to acquire a portion of a conservation easement to approximately 500 acres of Okanogan River riparian land, including 6.2 miles of land directly fronting the river, for the protection of three salmon species: summer chinook, sockeye, and steelhead. This project is focused on protecting one of the few remaining undeveloped stretches of the Okanogan mainstem from development. This is the only intact riparian areas along the Okanogan in the U.S. and the landowners are interested in selling.					
	Benefit to Salmon:	**High**	Protects and restores up to 6.2 miles of riparian habitat in relatively undisturbed spawning/ rearing habitat used by summer chinook. Steelhead and sockeye transportation reach. Would prevent development, control grazing, and restore flood plain function.			
	Certainty of Success:	**Med**	Addresses two of the major limiting factors in basin. Sequencing of project may be inappropriate because full reach assessment has not been completed. Willing landowner. No monitoring plan. No specific riparian buffer or land management plan.			
	Project Comments:		Local landowner support for this effort not strong.			

Lead Entity Ranking and Technical Panel Comments and Rating

Whatcom County Lead Entity

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 8	02-1500	N	Nooksack Indian Tribe	Acme-to-Confluence Reach Assessment	250,000	49,700
	Description: The project collects habitat data to prioritize, design and implement acquisition & restoration projects on the lower South Fork Nooksack, the top priority area for Chinook. This assessment will identify habitat units, determine distributions & functions of LWD, assess riprap & levees, and assemble geomorphic & hydrologic data. Following prioritization, and working with willing landowners, a pilot restoration project will be designed and permited. This project complements the Lummi Nation assessment (2nd Rd. SRFB) just upstream in the Acme-to-Saxon reach.					
	Benefit to Salmon:	**High**	Proposed project will assess the habitat needs of multiple species. The proposal builds on existing information, fills identified data gaps within the strategy and leads directly to projects.			
	Certainty of Success:	**High**	This is a continuation of the Acme-to-Saxon assessment, completed by the Lummi Nation and funded in the Second Round 2000 grant cycle.			
	Project Comments: No cost estimates were provided for design and implementation of the identified pilot project.					
2 of 8	02-1630	R	Nooksack Salmon Enhance Assn	MF Nooksack Side Channel Improvement	117,300	28,600
	Description: This project will improve and protect spawning and rearing conditions in a 3500' long spring-fed side channel of the Middle Fork Nooksack River, by the placing 200 pieces of LWD to improve gravel sorting, pool formation, cover and overall channel roughness. The channel is currently used by spawning Chinook, Coho, Pink, and Steelhead. The channel is supplied with 12 cfs of high quality, year-round spring-fed water flows. LWD will be placed along the channel using a helicopter and a track excavator will arrange LWD into stable arrays.					
	Benefit to Salmon:	**Med**	The proposal focuses predominately on pinks and Chinook. The primary purpose of this project is to provide additional spawning habitat by adding structures, which are intended to sort gravels. This process is occurring naturally. The project proponent stated under Other Approaches in Section 14 of the Project Evaluation, "Gravel importation and mining options were rejected out of concerns with permitting requirements and the recent observations of improved gravel recruitment to the channel."			
	Certainty of Success:	**Med**	Stability of the structures is in question. There are concerns that the structures will fill in with bed load during higher flows and that the structures may not stay in the active channel. It does not appear that sufficient surveys have been completed. The project proponent needs to address sediment transport and shear stress in regard to this channel, its structures and instream flows. Stranding of pink salmon will not be addressed with this project.			
	Project Comments:					
3 of 8	02-1648	C	Lummi Indian Nation	Kwina Slough Acq. & Riparian Restoration	303,975	67,000
	Description: This proposal is to purchase and preserve 93.3 acres of riparian habitat bordering Kwina Slough and the remnant Steamboat Slough in the Nooksack River Estuary and to restore riparian functions, including invasive plant control and native plantings. The project will protect vital rearing habitat for all salmonid species. The acquisition of this site will also facilitate instream treatment options being developed in the Nooksack Estuary Habitat Assessment Project (3rd Rd. SRFB).					
	Benefit to Salmon:	**High**	The slough is connected to the mainstem Nooksack and provides rearing habitat for multiple salmon species.			
	Certainty of Success:	**Med**	Achieving the full benefits to salmon would require further acquisition and restoration work beyond the scope of the project. Project is across the river from a large block of floodplain/wetland habitat in public ownership and begins the efforts to acquire similar blocks of habitat on the opposite side.			
	Project Comments:					
4 of 8	02-1489	N	Nooksack Salmon Enhance Assn	Squalicum Fish Passage Reroute Design	25,000	25,000
	Description: The project is for design and complete engineering work to reroute Squalicum Creek around Bug Lake to its historical channel. The project wil directly lead to identification, siting, and design of a fish passage and riparian habitat restoration project. NSEA will assess landowner opportunities and an engineer will design channel improvements and plan for rerouting of Squalicum Creek to re-establish natural processes. The project would benefit Coho, Chum, Steelhead, and Cutthroat.					
	Benefit to Salmon:	**Low**	Benefits are rated as low due to the presence of non-native warm water species in the lakes. Further, the project is not supported by the Lead Entity strategy, does not address the highest priority salmon species, and it is out of sequence with other passage projects. Stormwater impacts may reduce the benefits of the project.			
	Certainty of Success:	**Med**	There is a medium level of certainty due to critical uncertainties with the design. The design may be cost prohibitive, and/or may not address all limiting habitat factors at the site. While there are five miles of habitat upstream of the project, its condition is unknown. Success is based on landowner willingness. Stormwater objectives may be unrealistic, given land use in the area.			
	Project Comments: Project proponents need to address the non-native fish issues and whether or not DOT is planning to remove or alter the culverts under Interstate5. Does DOT's support include funding for addressing the issues with these culverts? The full benefit could not occur until DOT addresses the I-5 culverts.					

5 of 8	02-1505	R	City of Bellingham	Whatcom Creek Estuary Restoration	353,500	402,800

Description: This project would restore 1,000 feet of nearshore habitat in the Whatcom Creek estuary, including: conversion of upland to aquatic habitat; salt marsh (emergent) and mudflat restoration; public education; and long-term stewardship. A solid waste cleanup of an historic landfill is being conducted by the City in parallel with this project. The Bellingham Bay Pilot Team identified restoration of nearshore habitat in this area among the highest priority actions for the region to improve juvenile salmonids habitat.

Benefit to Salmon:	**Low**	Over half of the budget reserved for landfill removal, and administration and engineering. It does not appear that the project will allow additional tidal influence into the estuary nor would the project add a great deal of habitat. The cost/benefit ratio for this project is low.
Certainty of Success:	**Low**	It appears that the proponents may be able to meet some of their objectives, however it is doubtful that they will be able to increase the residence time of juvenile salmonids and increase productivity. Without the ability to increase the tidal influences on the project area, the above objective cannot be met. Stormwater inputs, and the urban location will compromise project benefits, and may have a negative affect on juvenile salmonids.

Project Comments:

6 of 8	02-1487	N	City of Bellingham	Padden Creek Daylighting	200,000	200,000

Description: This project is to develop designs to create an open creek section to replace a 2600 foot long tunnel within the Padden Creek corridor, in the southside of Bellingham. The tunnel has been blocking Coho, Chum and any historic fishery since the 1890's. The final project will create a new section of creek providing riparian habitat and passage through the project area, and opening the upper basin and its tributaries for spawning and rearing habitat.

Benefit to Salmon:	**Low**	Benefits of this project would not be realized until the passage design is implemented. Habitat quality above the culvert/tunnel is not stated in the application Project is in a low priority area and does not address Chinook. The cost/benefit ratio for this project is low.
Certainty of Success:	**Low**	Certainty of success is low due to the many unknowns associated with the project. It is possible to design a channel with restored passage, however expense and lack of landowner support may prevent the project from being implemented. Implementation costs could be prohibitive.

Project Comments: Project proponent needs to address stormwater issues, continue building community support, and garner funds support from other sources for project construction.

7 of 8	02-1516	N	Lummi Indian Nation	Nooksack Estuary Juv. Chinook Assess	315,962	56,380

Description: The project will characterize the distribution, abundance and condition of Chinook and other juvenile salmonids within the estuary habitat of WRIA 1. The assessment will be made within the context of the habitat segments characterized in the Nooksack Estuary Habitat Assessment (3rd Rd. SRFB). Data acquired in the Juvenile Assessment will direct the prioritization and design of 10 estuary restoration projects identified in the habitat assessment.

Benefit to Salmon:	**Med**	Actual benefits to the species would occur if restoration plans were developed and implemented. How will this information be combined with existing information? How will this information be disseminated to the public? How will it be used to develop projects?
Certainty of Success:	**Low**	Certainty of success in achieving the project objectives is low because the objectives are excessively broad. It is unclear how the assessment would be linked directly to salmon recovery.

Project Comments:

8 of 8	02-1491	R	Dept of Ecology	Whatcom County Creosote Project	110,000	28,000

Description: This project will continue a second year of creosote material location and removal from marine beaches in Whatcom County. The project will also inventory and begin the removal of fixed pilings concentrating in Bellingham Bay. Creosoted pilings, piling remnants, cast-off railroad ties, and other creosote treated material are a continuous source of pollution on the beaches of Whatcom County, impacting forage fish spawning habitat, a major food fish for migrating salmonids.

Benefit to Salmon:	**Low**	It appears that the there is some benefit to salmonids, however the project proponent has over estimated it. Creosote was identified in the LFA as a potential issue not a major issue. The impacts of the creosote materials seem to affect salmon indirectly through impacts on forage fish, and not clear how much this impacts salmonid species.
Certainty of Success:	**Low**	Certainty of success appears difficult to monitor. The project proponent would also need to address contaminants in the ground around the pilings. The project also does not appear to fit into the Lead Entity Strategy.

Project Comments: This innovative project appears to fill a need for toxic waste removal.

Lead Entity Ranking and Technical Panel Comments and Rating

Yakima River Basin LE

LE Ranking	Project #		Sponsor	Project Name	SRFB Request	Match Amount
1 of 13	02-1527	R	North Yakima Conservation Dist	Diversion 14 Fish Screen - Ahtanum Cr.	199,000	42,961
	Description: The North Yakima CD, through the Yakima Basin Tributary Access and Habitat Program (YBTAHP), proposes an engineered fish screen design and improvements on Ahtanum Creek, approximately 11 miles upstream from the Yakima River. Ahtanum Creek lies partially within the Yakama Nation, and currently supports steelhead, Bull Trout, Chinook and Coho salmon. It is the last unscreened gravity diversion remaining on the Ahtanum Creek. All other diversions on Ahtanum have been or are currently being screened or converted to screened pump diversions.					
	Benefit to Salmon:	**High**	Last unscreened diversion on Ahtanum Creek, located at RM 11. Project will protect steelhead, bull trout, and possibly coho and Chinook juveniles. Riparian restoration planned in vicinity of project. Several miles of accessible habitat above project but physical barriers have not yet been inventoried (number considered "minimal" by local experts).			
	Certainty of Success:	**High**	The technology to design/operate effective fish screens is mature.			
	Project Comments: Doubtful there are spring Chinook that far upstream if rearing is only life history phase documented for this species. Once flow and passage issues are addressed, use may expand in future.					
2 of 13	02-1494	R	Kittitas Co Conservation Dist	Coleman Creek Fish Access	101,774	31,564
	Description: This project addresses a fish passage barrier, an unscreened surface water diversion, and an uncontrolled intersection of Bull Ditch and Coleman Creek, a tributary to Wilson Creek in Kittitas County, approximately 3.3 stream miles from the Yakima River. Major tasks include removal of a perched culvert, installation of rock weirs for passage, a control structure for Bull Ditch terminus, and a fish screen for in-stream pump diversion. The project will reconnect approximately 1 mile of spawning and rearing habitat for Chinook, Coho, and Steelhead.					
	Benefit to Salmon:	**Med**	The project provides a limited amount of rearing habitat (0.5 miles) for spring Chinook, steelhead, and possibly coho juveniles, in an area with degraded channel and water quality conditions. This is the first diversion structure that needs to be fixed in order to begin the process of opening many miles of important upstream habitat to the Yakima River. The project will provide juvenile screening and prevents the mixing of Bull Ditch water with Coleman Creek (some water quality improvement). Habitat appears mostly in agricultural area but has not been assessed. There are other significant limiting factors not being addressed, such as lack of riparian function. The benefits could be even greater if the project would have included an aggressive riparian restoration component.			
	Certainty of Success:	**High**	This is a relatively easy and inexpensive fix for passage and screen problem. The project is consistent with their limiting factors analysis and is in the proper sequence.			
	Project Comments:					
3 of 13	02-1656	R	Kittitas Co Conservation Dist	Dry/Cabin Crk Fish Passage & Screening	164,051	57,194
	Description: This project addresses unscreened, impassable irrigation water diversions that serve an inefficient irrigation system. Major tasks include the installation of a fish screen, fish passage structure, mini-pivot irrigation systems, and riparian restoration. The irrigation diversion structures currently block access to approximately 1.2 miles of rearing habitat. The project site include a springbrook waterway known as Cabin Creek and Dry Creek, a tributary to the Yakima River, providing rearing habitat for Spring Chinook.					
	Benefit to Salmon:	**Med**	Provides spring Chinook juveniles and resident trout access to about 1.2 mi of rearing habitat. Project will consolidate 3 unscreened diversions into 1 diversion and screen it, eliminating entrainment mortality. In the future, steelhead and coho juveniles may use the habitat. The quality of upstream habitat unknown, but in photos it appears to have channels with little riparian or in-stream habitat complexity. No apparent water saving for instream flow. There are other significant limiting factors not being addressed, such as lack of riparian function. The benefits could be even greater if the project would have included an aggressive riparian restoration component.			
	Certainty of Success:	**High**	The technology is established to successfully accomplish planned project. The project is consistent with their limiting factors analysis and is in the proper sequence			
	Project Comments:					

4 of 13	02-1612	R	Yakima County Corrections	Riparian Enhancement Team - Phase 2	159,141	365,946

Description: The Yakima County Dept. of Corrections (YCDOC) is currently providing tools, transportation and labor for riparian restoration work at priority stream sites in Yakima County. Inmate crews provide dependable, low cost labor that is available year round to start, service and maintain projects located on the Yakima River and tributaries. This request is to enhance service for the existing project sites and to restore new high priority sites. Since 2001, YCDOC has worked at 14 riparian sites and planted 390 plants and 7,382 trees.

Benefit to Salmon:	**High**	Provides low-cost labor to plant, monitor and maintain riparian vegetation and install exclusion fences. Depending on where this effort is directed, this could be an efficient way to implement this component of habitat restoration in the basin. Addresses significant limiting factor for Yakima basin.
Certainty of Success:	**Med**	Mechanism to direct work of crew is informal and appears to lack prioritization and focus. Site identification is dependent on other funding.

Project Comments: Labor pool seems to always be sufficient. Good learning experience for participants. Lead Entity or other responsible organization should develop procedures to ensure efforts are directed when and where they are needed to benefit salmonids.

5 of 13	02-1614	C	Cowiche Canyon Conservancy	Snow Mtn Ranch Acq & Barrier Removal	670,000	120,000

Description: This project proposes to acquire two parcels of the Snow Mountain Ranch (~312 acres) that encompass the South Fork Cowiche Creek (tributary to the Naches River), its floodplain, associated wetlands, and the ranch's irrigated ag lands. This project will implement riparian and floodplain restoration, fish barrier removal, and instream flow improvements. The removal of the fish barrier will open access to the rest of the Cowiche Basin (20+ miles) for juvenile and adult Steelhead, Coho, and Chinook. The Yakima River Basin Watershed Assessment states, "The Cowiche Creek system is considered to have good to excellent rearing habitat with adequate cover, especially in the South Fork." The Northwest Power Planning Council Salmon and Steelhead Production Plan (1990) discusses other habitat factors in Cowiche Creek noting, "Riparian vegetation is dense along most reaches; stream banks are stable and there are sufficient spawning gravels." Pools and riffles are also relatively abundant on the South Fork of Cowiche Creek. The Yakima Basin Limiting Habitat Factors Analysis reported, "Cowiche Creek as having major steelhead and coho production potential, minor spring chinook production potenti

Benefit to Salmon:	**High**	Acquisition and restoration of riparian and floodplain function on South Fork Cowiche Creek. Fish barrier on property will be removed. Property also includes water rights that will return 1/2 cfs to stream. Barrier removal will provide access to 20 miles of upstream habitat. Will reestablish beaver use in valley. Steelhead and coho will likely spawn/rear in reach and spring Chinook may use it or rearing. Project site is adjacent to WDFW-owned property.
Certainty of Success:	**High**	Some good to excellent habitat will be made accessible to anadromous fish. Floodplain processes will be reconnected. This habitat area represents “new” production area for anadromous fish.

Project Comments: Downstream end of stream goes dry in late summer. Two downstream barriers are being addressed in 2003. Will require time for habitat to recover from past farming practices.

6 of 13	02-1617	P	Yakama Nation	Lower Naches Critical Habitat Protection	201,484	65,016

Description: This project will protect approximately 71 acres of floodplain along a priority reach of the Naches River, just west of Yakima, which provides critical rearing habitat for Bull Trout, Chinook, Coho and Steelhead. This project will protect key areas from future development. Project objectives include: 1) Continue to purchase sites that have already been appraised; 2) Prioritize additional high priority sites for protection; and, 3) Promote resource management partnerships between the Yakama Nation and Yakima County.

Benefit to Salmon:	**High**	Purchase of productive floodplain habitat in lower Naches will provide primarily rearing habitat for spring Chinook, coho, steelhead, and bull trout, and spawning habitat for spring Chinook and steelhead. Some water rights will come with properties. Located in stream reach where upwelling occurs, providing cool, clean water source.
Certainty of Success:	**Med**	Habitat restoration will be necessary on some parcels. Good local participation.

Project Comments: Project management requires almost 3 FTEs, which seems high. Good monitoring effort for 3 years. Side-channel preferred spawning/rearing areas for spring Chinook. Naches River would benefit from a comprehensive plan for restoration.

7 of 13	02-1603	R	Northwest Service Academy	Lmmuma Creek Restoration Phase II	34,800	18,000

Description: The project proposal aims to restore Lmmuma Creek above the previous project by: 1) Continuing cattle exclusion fence one mile upstream (both sides) of Lmmuma Creek, 2) Removing noxious weeds, and 3) Planting native vegetation. This is Phase II and continues work for one mile upstream of the Phase I project site, which was funded the last SRFB grant cycle. Lmmuma Creek provides spawning and rearing habitat for Chinook Coho, and Steelhead.

Benefit to Salmon:	**Med**	Riparian exclusion fencing and planting will allow riparian restoration of 5,000 ft of Lmmuma Creek and will provide rearing habitat for spring Chinook and steelhead juveniles, possibly coho in the future. Extends upstream from similar project funded in Third Round SRFB grant cycle. Will help address sediment TMDL for Yakima.
Certainty of Success:	**Med**	Riparian exclusion does not address all habitat issues in Lmmuma Creek. Flows intermittent but may be improved by long term riparian recovery. Project is dependent on Dept. of Defense to protect habitat upstream. One of few tributary streams in this canyon reach of the Yakima River.

Project Comments: Stream highly degraded/abused for long time. Full habitat recovery will be slow.

8 of 13	02-1480	R	Ellensburg Water Company	Currier Crk/EWC Canal Intersection	322,000	102,534

Description: The Currier Creek/Ellensburg Water Company Canal Intersection project will siphon the EWC main canal under Currier Creek, and will 1) remove an existing fish barrier, 2) eliminate the intermingling of herbicide treated canal water and creek water, 3) eliminate fish entrainment in the canal system, 4) restore the creek channel to a more natural state, and 5) add a modern fish screen to the diversion. As lower barriers are removed, Chinook, Coho and Steelhead will gain access to this moderate to high quality habitat for rearing and spawning purposes.

Benefit to Salmon:	**Low**	Primarily resident fish at this project, but anadromous use may occur in future as barriers are removed downstream. Creek habitat is in poor condition due to lack of riparian function. Project eliminates co-mingling of canal and creek water.
Certainty of Success:	**Med**	Existing technology will correct problem. Does not address downstream passage issues. Project seems out of sequence.

Project Comments: Demonstrates cooperative effort in valley.

9 of 13	02-1495	R	Kittitas Co Conservation Dist	Upp Naneum Water Diversion & Delivery	464,016	482,740

Description: This project addresses 5 unscreened water diversions and inefficient water delivery systems, by combining the diversion points, providing a water diversion and fish screening structure, and enclosing the water delivery ditches. The project is in the uppermost part of the Naneum Creek watershed, north of Ellensburg, and is dependent on numerous downstream barriers being corrected to successfully restore access for Chinook and Steelhead.

Benefit to Salmon:	**Low**	Benefits resident fish by combining several diversions and screening into single point diversion, providing PVC pipe for delivery system, resulting in unknown water savings that will go into trust for 10 years. Anadromous fish may use area in future. The benefits to anadromous fish are dependent on downstream fish passage work.
Certainty of Success:	**Med**	Structural components are common technology, but long term benefits still in question. Sequencing may not be appropriate. Many barriers exist downstream.

Project Comments:

10 of 13	02-1502	R	City of Yakima	Naches River Water Treatment	200,000	1,730,600

Description: The City of Yakima operates a diversion on the Naches River to supply water to its Water Treatment Plant. The project is to improve the diversion facilities to meet current fish screening criteria for the protection of salmonids. Design, permitting and 15% of screen construction is complete. The Naches provides critical habitat for Steelhead, Bull Trout, Coho and Spring Chinook. Note: Project was funded in SRFB 3rd Round. BPA match is lower than originally estimated and sponsor is requesting an additional $200K to make up difference.

Benefit to Salmon:	**Med**	Project would screen intake for City of Yakima's wastewater treatment plant, preventing entrainment of juvenile spring Chinook, steelhead, coho, and bull trout, and perhaps some adults. Plant currently diverts unscreened water for up to 60 days/yr. Will divert unscreened water entirely when Wapatox power project goes off-line in future.
Certainty of Success:	**Med**	Technology exists to successfully implement project but cost and design still in question. There is some uncertainty of ability to implement project due to budget history. Changes in project design may limit full project benefits.

Project Comments: The project was funded in the Third Round SRFB grant cycle (Lead Entity ranked #6 of 12, SRFB technical panel rated medium benefit and high certainty). The BPA match came in $400K short. The City of Yakima is providing $200K and requesting SRFB for additional $200K.

11 of 13	02-1488	R	Meadow Springs Country Club	West Fork Amon Creek Fish Passage	179,913	213,462

Description: The project is to restore natural stream and wetland functions in West Fork (WF) Amon Creek by constructing two small fish ladders, replace a series of damaged undersized culverts, build natural instream structures, and improve water quality by deepening the instream irrigation reservoir. Coho, Chinook, and Steelhead are the primary benefactors. The reservoir and the upstream wetlands will provide excellent rearing habitat once fish access is restored. The project also restores over 1,100 m of spawning habitat.

Benefit to Salmon:	**Low**	Amon Creek is a lower priority tributary in the Yakima River basin. Provides access to habitat that has constant high quality spring water (6 cfs). Habitat in golf course is degraded and requires extensive restoration. Coho adults and juvenile coho and Chinook observed in creek.
Certainty of Success:	**Low**	A number of habitat issues need to be addressed and maintained.

Project Comments: The final 3 projects are in Amon Creek drainage. If this watercourse has the anticipated potential for salmonid production expressed in the proposals, a single basin-wide proposal, starting with the assessment, would be a better approach. That way you could develop a strong story for investing SRFB dollars into this somewhat unique basin, and have logical, sequential steps for project implementation.

12 of 13	02-1474	N	City of Richland	Amon Creek Wasteway Study	106,250	18,750

Description: The proposed study of the Amon Creek Wasteway, located in Benton County, would assess the watershed and identify restoration measures to improve fish passage barriers and water quality impacts. The barriers have resulted in preventing Coho and Chinook salmonid together with juvenile Steelhead from reaching desirable upland spawning and rearing areas within the Wasteway.

Benefit to Salmon:	**Low**	Assume the study encompasses entire Amon Creek watershed (including West Fork). Current use by salmonids is confined to West Fork and downstream due to barrier culverts. Water quality impaired due to storm run-off. Significant habitat damage has already occurred in past but now identified as salmonid bearing stream.
Certainty of Success:	**Med**	Assessment techniques well established but, according to the TAG, this assessment does not address appropriate questions and issues. Water quality study underway.

Project Comments: Overall potential benefit for salmonids does not appear to be great. Availability of constant, high quality water source in attractive to restoration opportunities, but use by salmonids may be very limited. Need to develop a compelling case for expending money in this watercourse.

13 of 13	02-1472	R	City of Kennewick	Lower Amon Culvert Removal & Replace	85,000	15,000

Description: The project is to remove two 30" culverts and replace with a 6' bottomless pipe arch to improve fish passage. The project is located in the City of Kennewick, on Lower Amon Creek, and is one of the few natural small streams in Benton County with habitat for Chinook, Coho and Steelhead.

Benefit to Salmon:	**Low**	Anadromous fish use in this stream appears limited and confined primarily to the West Fork. Habitat is degraded. Project addresses partial blockage to fish passage in lower Amon Creek. Passage problems arise during high flow events. If this is a priority issue to get fish up to West Fork, why isn't it ranked above # 13?
Certainty of Success:	**Low**	Straightforward culvert replacement but project necessity and design details poorly developed.

Project Comments: WDFW questioned cost estimates.