10-13-15
Project Sponsor Response to Review Panel Concerns
Beach Lake Acquisition & Restoration
PRISM Project # 15-1045

1.SRFB Review Panel Comment: *The project has a high cost relative to the anticipated benefits and the project sponsor failed to justify the costs to the satisfaction of the review panel.*

1A.Project Sponsor Response: We understand and share the Review Panel's concern of keeping costs to a minimum and are working hard to do so. Purchasing shoreline property is expensive. However, this project is cost effective when looking at what is being protected for salmon and forage fish along the Strait of Juan de Fuca shoreline now and into the future and the nearshore habitat improvements resulting from the removal of significant infrastructure from the nearshore.

It is also beneficial when compared with what the detrimental, environmental costs would be if this property was further developed, with additional armoring needed, plus the lost ecosystem functions resulting in further damage to this important anadromous fish habitat.

Habitat Restoration Manager Mike McHenry of the Elwha Klallam Tribe and also of the North Olympic Peninsula Lead Entity's Technical Team, indicates that this area is a known migration corridor used by ESA-listed Elwha Chinook and Puget Sound steelhead, as well as other salmon species in the Elwha including coho, pinks, and chum. The Tribe and other's work shows that many of the Elwha stocks leave the Elwha River Delta and turn right or eastward towards this shoreline property. Armored shorelines tend to harbor predators which feed on young salmon, negatively impact availability of salmonid prey for foraging and negatively impact eelgrass beds which juvenile salmon use for resting, feeding, protection and shelter.

This project now has a total SRFB request of $484,750. That is $61,550 less than the $546,300 previously requested. This includes the cost of 25 acres of prime nearshore habitat at an approximate cost of $39,000 an acre, including infrastructure. Research indicates the average per acre cost of comparable

shoreline properties in Puget Sound is $45,000 an acre. Other project costs include the demolition and removal of 10 structures, decommissioning of 2 septic systems, removal of roads, etc.

The project design costs have been greatly reduced to $75,000 for engineering design and permitting (was $177,000 in original proposal, down to $117,000 after site visits) for removal of 870 feet of derelict rock armoring along the acquisition parcel. More detail is provided below in answer 3A.

The project footprint has been expanded to also include another 1,200 feet of up drift derelict rock armor on DNR tidelands in front of the Lower Elwha Klallam Tribe Reservation. This project will design for removal and correction of the entire 2,070 foot run of derelict armor impairing the project site.

In addition, significant design and administrative costs have also now been reduced. That is further detailed in answers 2A and 3A.

***2.SRFB Review Panel Comments*: If the project is a POC, identify the changes that would make this a technically sound project:**

The grant request for acquisition costs would need to be reduced to be more proportional to the 15% of the property with direct benefits for ESA-listed salmon and steelhead. The proposed assessment and design elements would also need to be removed.

2A.Project Sponsor Response: As indicated earlier, we have now reduced the overall project ask by $61,550 from $546,300 to $484,750. The acquisition request has been reduced by $25,850 from $446,850 to $421,000. The acquisition budget includes a $25,850 overall reduction in costs with administrative costs reduced from $63,800 to $30,000. Minor increases have been added to; fencing, revegetation boundary survey and relocation fees. There are two tenants who currently have residential and agricultural leases to use and live on the property who will need to be relocated. We need to ensure there is enough money to cover these costs. We have increased this budget item based on research gained and information shared by the Jamestown S'Klallam Tribe's based on their work for a current Dungeness Floodplain acquisition project.

Please note that $484,750 in grant funds are being requested from RCO, while $1,000,000 is being requested from a Coastal Wetlands Grant offered through the U.S. Fish & Wildlife Service. That federally-funded program requires a 25 % match ($333,000) from non-federal funding sources which state RCO funds will provide. Additional scoring points are given by the U.S. Fish & Wildlife Service for projects that surpass the minimum required match, thereby increasing project competitiveness.

The property is listed for sale at $990,000 and combined, these two grant sources will complete the due diligence, conservation purchase and infrastructure removal from the property. It is not possible to purchase solely the coastal portion of this property, nor would that protect the pocket estuary habitat that Beach Lake offers. During winter storm events, the 8 acre wetland complex of Beach Lake is breached, such that it functions as pocket estuary habitat and high flow refugia. Sea level rise will increase the frequency of this connectivity and conservation of this entire parcel ensures unimpeded natural evolution and function of this shore form.

When considering Beach Lake pocket estuary habitat and the marine riparian habitat as salmonid habitat, approximately 12 acres of the 25 acre parcel function as habitat utilized by salmonids. That equates to 48% of the habitat. The acquisition purchase request to SRFB is for 30% of the purchase costs. 21 acres (84%) of this property fall within the 100 year floodplain. This acquisition is similar to projects which purchase river floodplain habitat and remove infrastructure to allow for natural evolution associated with river flood events, except at this property we are purchasing coastal floodplain in anticipation of future coastal flood events and sea level rise

The opportunity to conserve and restore this shoreline provides benefits for salmon and forage fish that extend well beyond the parcel boundaries and will offer significant positive influence on the continued evolution of the Elwha River delta and estuary, which is used by ESA-listed Elwha Chinook, Puget Sound Steelhead and other salmon species. Evidence for the future benefits offered by

Beach Lake to all estuary-dependent salmonids are revealed when the history of Beach Lake evolution is considered.

Prior to dam implementation, Beach Lake was a tidal channel connected directly to the mainstem of the Elwha River. Sediment and LWD deprivation after dam construction reduced the extent of Beach Lake by over 70% and disconnected it from the river estuary complex. Now that the supply of beach forming LWD and sediment has been restored by dam removals and as the delta is pushed toward Beach Lake by prevailing wind and wave transport of beach forming sediments, the potential exists for Beach Lake to reconnect once again directly to the Elwha River estuary complex as estuarine salmonid nursery and refugia habitat. The acquisition of this property enables the removal of infrastructure and livestock from the remainder of the property to establish a buffer that safeguards functional ESA-listed salmon and steelhead habitat now and well into the future as shorelines move landward.

The acquisition of this property enables the removal of 870 feet of derelict armor directly in front of the acquisition property. The project footprint has been extended to include full engineering design and permitting for the removal of an additional 1,200 feet of adjacent updrift derelict armor. This 2,070 foot length of derelict armor encompasses the entirety of derelict intertidal armor along the expanding Elwha River delta. Complete removal of all derelict Elwha shoreline armor could not be accomplished without the purchase of this property. The owner has been approached but would not agree to derelict armor removal without the property being purchased.

The SRFB request will purchase the Beach Lake property and engineer for the removal of a total of 2,070 feet of shoreline armor. **Then, once the property is acquired and permitted; project partner North Peninsula Builders Association will remove the 870 feet of derelict armor from in front of the Beach Lake property at no cost to SRFB. The value of this removal will be determined during the engineering process.**

The benefits to salmon associated with this acquisition and restoration design project will eliminate predation upon salmon associated with derelict armor,

improve juvenile salmonid migration and rearing, improve forage fish availability, and will positively influence the development of the Elwha River delta/estuary by removing derelict armor that impedes natural beach forming processes.

3.SRFB Review Panel Comments: *The project sponsor has not sufficiently justified the need for these assessments to support the removal of failed rock armoring along the shoreline. Addressing the eroded rock along the shoreline should not require extensive hydraulic analysis since it does not affect flood risk and is no longer serving as bank armoring. The project should be relatively straightforward and require minimal assessment work to support development of permit applications and to implement rock removal.*

3A.Project Sponsor Response:

The proposed assessment has been removed and there is more information below about required engineering associated with this project.

Although derelict rock armor is barely functioning as bank armoring, it may provide a "perceived" sense of flood or erosion protection for adjacent shoreline landowners. An assessment of shoreline impacts of derelict armor removal upon adjacent coast floodplain landowners has been removed from the design scope entirely and the budget has been adjusted accordingly.

However, as part of the design process; the hired engineer will need to produce a No-rise Certification to ensure Federal Emergency Management Agency (FEMA) compliance with the Section 60.3 (d) (3) - Floodway Requirement of the National Flood Insurance Program.

This requirement states: "*Any project in a floodway must be reviewed to determine if the project will increase flood heights. An engineering analysis must be conducted before a permit can be issued. The community's permit file must have a record of the results of this analysis, which can be in the form of a No-rise*

Certification. This No-rise Certification must be supported by technical data and signed by a registered professional engineer."

It is worthwhile to note that the landowner adjacent to (down drift of) the Beach Lake property recently placed unpermitted armor along 800 feet of shoreline. That action is under review by the appropriate government authorities. The reason that the previously proposed assessment of shoreline rock removal upon coastal processes of adjacent landowners was included in the original budget, was to provide "due diligence" work completed prior to project implementation so the Beach Lake Restoration project could not be blamed if there were increased levels of erosion on the adjacent property such that the unpermitted armor was allowed to remain.

This assessment, which has been removed from this proposal; was also intended as problem avoidance to document that any future property damage at adjacent coastal properties from future winter storm events occurring during king tides could not be blamed on recently completed restoration work associated with the Beach Lake Restoration Project.

The high energy nature of this shoreline, coupled with the fact that the mostly derelict rock armor is dispersed over a 20-30 foot-wide band of the intertidal zone waterward of Mean Higher High Water (MHHW); necessitates engineering plans that precisely locate tidal elevations of derelict rock and specify work windows during which specific portions of the beach can be safely accessed with minimal impact to both the environment and the contractor.

Engineering designs will define project sequencing, provide bid documents for the contractor and are needed in order to obtain the required state, federal and county permits. The design budget has been further reduced by $42,000 from $117,000 to $75,000 to produce final engineering designs, bid documents and secure permits. The SRFB request covers $63,750 of the design engineering cost.