# Planning and Combination (Planning and Acquisition) Project Proposal

|  |  |
| --- | --- |
| **Project Number** | 15-1049  |
| **Project Name** | Iverson Stakeholder Integration Project |
| **Sponsor** | Island County |

List all related projects previously funded or reviewed by RCO:

|  |  |  |
| --- | --- | --- |
| Project # or Name | Status | Status of Prior Phase Deliverables and Relationship to Current Proposal? |
| 09-1481Iverson Marsh Restoration Feasibility and Outreach  | Not funded  | This project was proposed in a year with a large number of other projects for very limited funds. The funding allocation did not extend to the fund 66% of the projects proposed in 2009. |
| 14-1076 Iverson Preserve Stakeholder Integration Project | Not funded  | This project was a 2014 SRFB-approved Alternate. The 2015 project does not differ from the 2014 project. |

If previous project was not funded, describe how the current proposal differs from the original.

1. **Project Location.** *Please describe the geographic location, water bodies, and the location of the project in the watershed, i.e. nearshore, tributary, main stem, off-channel, etc.*

The Iverson Preserve lies on the east side of Camano Island adjacent to Port Susan and across from the Stillaguamish River. It is in WRIA 6’s highest Priority Geographic Area 1. The project area consists of the nearshore and estuary that is under the ownership of Island County Parks and named Iverson Preserve.

1. **Brief Project Summary.** *Summarize your project in a few sentences. Please be brief, you will be asked for details in the following questions*.

The main goal of this project is to involve Iverson Preserve’s stakeholders in a planning project that will develop an acceptable conceptual design for restoration to address habitat issues and neighboring homeowners’ concerns. Island County is interested in balancing the community’s concerns with improving habitat for listed species and water quality. Staff will facilitate neighborhood/stakeholder meetings to work with existing plans and information from feasibility studies to inform the landowners to reach a consensus on alternatives to model and evaluate risks, and to and explain the site restoration benefits to advancing habitat restoration at Iverson Preserve.

1. **Problems Statement.** *Please describe the problems your project seeks to address by answering the following questions*.
	1. **Describe the problem including the source and scale.** *Describe the site, reach, and watershed conditions. Describe how those conditions impact salmon populations. Include current and historic factors important to understanding the problem.*

Iverson Stakeholder Integration Project seeks to find a feasible restoration conceptual design that would integrate concerns of neighboring private property residents (Long Beach) and valued park patrons with restoring pocket estuary habitat for juvenile salmonids. The pocket estuary at Iverson is approximately 120 acres and consists of 3,200 linear feet of shoreline with 100 acres currently diked, drained and farmed for hay. It is located on the western edge of Livingston Bay on Camano Island situated due west of the mouth of the Stillaguamish River. This project area is located in WRIA 6 High Priority Geographic Area 1 (ICSRR 2005, p.27).

Research conducted in 2002 found that wild fry migrant Chinook salmon appear to

prefer non-natal pocket estuaries compared to other adjacent nearshore habitat areas (Beamer et al. 2003). Evidence suggests that juvenile Chinook in pocket estuaries experience improved growth and higher survival than fish in surrounding nearshore or offshore areas during the period from February through May. Preliminary results from fish sampling in 2003 further support earlier work and found that pocket estuaries serve a nursery role for a number of other fish species including surf smelt – an important salmon prey resource. Additionally, accretion shore forms protecting pocket estuaries appear to be linked to bull trout use (Beamer et al. 2004). These results suggest that pocket estuaries are an important ecological niche for some salmon life history types and other important estuarine/marine fish species.

Current estimates based on modeling by the Skagit River System Cooperative state that 68% (58 out of 85 verified) of pocket estuaries are now inaccessible to salmonids. And the remaining 32% have been modified negatively effecting quality and access to habitat (Beamer 2003).

“The loss of tidal delta and pocket estuary habitat and disruption of historic fish pathways, coupled with knowledge of juvenile Chinook life history strategies (tidal delta rearing migrants and fry migrants) that depend upon tidal delta and pocket estuary habitats have led us to hypothesize that the current habitat condition of Skagit estuarine habitat is limiting Chinook salmon population recovery. We have investigated potential responses of Chinook salmon to habitat conditions by sampling fish abundance, distribution, and growth throughout the tidal delta and nearshore, and by analyzing a sub-sample of juvenile salmon otoliths to determine life history strategies. The findings support our hypothesis and point toward specific priorities for estuarine habitat restoration” (Beamer et al 2005).

Approximately 100 acres of potential salt marsh at the Iverson Preserve is diked, drained, and no longer accessible to juvenile salmonids migrating along the Port Susan nearshore. The dike was built in the 1940’s to improve farming conditions. The land behind the dike is owned and managed by Island County Public Works, Parks Department, and held as open field space and freshwater wetlands. In 2001, Phillip Williams and Associates (PWA) completed a flood study to determine alternatives for restoration and enhancement of Iverson Preserve. This study developed 4 alternative restoration strategies that ranged from no action to a full restoration of tidal inundation to the historic marsh. One of the primary conclusions of the PWA study was that additional studies (flood and saltwater intrusion) were needed before a specific restoration alternative could be recommended.

This project will build upon earlier efforts to assess flood and salt water intrusion risk to neighboring properties. Through a series of community events (including small meetings with targeted residents in the Long Beach community as well as public community events), t here will be extensive outreach to the community to achieve consensus for a selection of conceptual designs that both addresses their concerns and incorporates their feedback while also improving this valued salmonid habitat. Neighboring community and park patron support will be key to the success of this project. The input received from the outreach efforts as well as meeting outcomes will be well documented through participation logs and meeting notes and housed at the County.

Beamer, E, A McBride, C Greene, R Henderson, G Hood, K Wolf, K Larsen, C Rice and K Fresh. 2005. Delta and nearshore restoration for the recovery of wild Skagit River Chinook salmon: linking estuary restoration to wild Chinook salmon populations. Appendix to the Skagit Chinook Recovery Plan.

Beamer, EM, A McBride, R Henderson and K Wolf. 2003. The importance of non-natal pocket estuaries in Skagit Bay to wild Chinook salmon: an emerging priority for restoration. Skagit River System Cooperative, LaConner, WA. Available at www.skagitcoop.org/.

* 1. **List the fish resources present at the site and targeted by your** **project.**

|  |  |  |  |
| --- | --- | --- | --- |
| Species | Life History Present (egg, juvenile, adult) | Current Population Trend (decline, stable, rising) | Endangered Species Act Coverage (Y/N) |
| Chinook | Juvenile | Decline | Threatened |
| Chum | Juvenile | Stable | No |
| Pink | Juvenile | Stable | No |
| Coho | Juvenile | Species of concern  | Critical |

* 1. **Describe the limiting factors, and limiting life stages (by fish species) that your project expects to address.**

The limiting factor being addressed is accessibility to habitat – in this case, salt marshes and pocket estuaries – for out-migrating juvenile salmonids.

1. **Project Goals and Objectives.** *When answering the questions below please refer to Chapter 4 of the Washington Department of Fish and Wildlife’s “*[*Stream Habitat Restoration Guidelines*](http://wdfw.wa.gov/publications/01374/)*” for more information on goals and objectives.*
	1. **What are your project’s goals**? *The goal of your project should be to remedy observed problems, ideally by addressing the problems’ root causes. Your goal statements should articulate desired outcomes (your vision for desired future condition) and what species, life stages, and time of year (if pertinent) will benefit from those outcomes.*

**Project goal:** The main goal of this project is to integrate the stakeholder’s concerns into an acceptable restoration alternative for Iverson Preserve. Island County is interested in balancing the community’s concerns with improving habitat for listed species and water quality. The goal for restoring Iverson Preserve is to increase the survivability of out-migrating juvenile salmon by restoring connectivity to, and channel habitat within, a large pocket estuary that is used for rearing and refuge. This phase of the project will define the most successful alternative to integrate stakeholder concerns into a conceptual design to achieve the habitat recovery goal at this site

* 1. **What are your project’s objectives**? *Objectives support and refine your goals, breaking them down into smaller steps. Objectives are specific, quantifiable actions your project will complete to achieve your stated goal. Each objective should be “SMART:”* ***S****pecific,* ***M****easurable,* ***A****chievable,* ***R****elevant, and* ***T****ime-bound.*

* + - 1. Conduct two additional assessments by December 2016 – a flood risk assessment and a saltwater intrusion assessment – that will build upon earlier assessments and detail modeling for acceptable alternatives for restoration at this site.
			2. , with stakeholders, 2-3 designs for an alternatives analysis incorporating the flood risk assessmentand saltwater intrusion assessment. .
	1. **What are the assumptions and constraints that could impact whether you achieve your objectives?** *Assumptions and constraints are external conditions that are not under the direct control of the project, but directly impact the outcome of the project. These may include subsequent availability of funding, public acceptance of the project, land use constraints, geomorphic factors, additional expenses, delays, etc. How will you address these issues if they arise?*

The major uncertainty associated with this project is the willingness of the local community to support this project. The impact may range from an increased effort that was unforeseen or production of support materials to withdrawal of the project. All efforts will be made, and support utilized, to prevent and avoid this from occurring.

1. **Project Details.** *Please answer the questions below and all pertinent supplemental questions at the end of the application form*.
	1. **Provide a narrative description of your proposed project.** *Describe the specific project elements and explain how they will lead to your project’s objectives. For assessment projects, describe your design and methodolog*y.

The Iverson Marsh Stakeholder Integration Project will build upon the two previous Feasibility Studies for the Iverson Preserve (Iverson Farm Restoration Feasibility Study, 2001, and Flood Study to Determine Alternatives for Restoration and Enhancement of Marsh Habitat and Shoreline Process for the Iverson Farm Property on Camano Island, 2001) to further address the feasibility of restoring the inter-tidal marsh and partial or all of the old Iverson Farm. The project area is approximately 120 acres and consists of 3,200 linear feet of shoreline with 100 acres currently diked, drained and farmed for hay. The current leasee of the marshwho produces grass seed is willing to cease operations if the project moves forward.

The 2001 feasibility studies included review of 4 alternatives - full restoration, dike setback, installation of a self-regulating tide gate and no action (Phillip Williams and Associates, 2001). The feasibility study recommended outlined restoration alternatives for maximum salmon habitat benefit without incorporating stakeholder feedback. The feasibility studies also recommended that additional studies be conducted to ensure that the Long Beach residential development does not experience increased flood hazard as a result of proposed restoration actions. Island County Public Works department collected public comment in 2011 which indicated that further discussions are needed before moving this project forward. Residents had concerns including flood and salt water intrusion risks and park patrons’ concerns were mainly preserving their access to highly-regarded birding/hiking trails (Shelterbelt, Inc. 2011).

The main goal of this project is to integrate the stakeholder’s concerns into an acceptable restoration alternative for Iverson Preserve. Island County is interested in balancing the community’s concerns with improving habitat for listed species and water quality. Island County staff, hired consultants and Island County Shore Stewards will conduct extensive landowner communications to foster interest, participation and commitment in restoration conceptual design. Staff will facilitate neighborhood/stakeholder meetings to work with existing plans and information from feasibility studies to inform the landowners with the goal of reaching a consensus on alternatives to model, and to and explain the site restoration benefits to advancing habitat restoration at Iverson Preserve.

Hydrodynamic modeling, along with updated FEMA flood mapping analysis, will be utilized by a qualified engineer to assess flood hazard during storm surge events and salt water intrusion risks with the stakeholder- preferred conceptual design. The only conceptual design alternatives considered will not pose flood hazards for drain fields and basements for the homes along the beachfront. A qualified engineer will work closely with Island County staff to evaluate and integrate feedback from Long Beach residents and park patrons into conceptual design plans for restoration at Iverson Preserve.

* 1. **Provide a scope of work.** *Provide a detailed description of the proposed project tasks, who will be responsible for each, what the project deliverables will be, and a schedule for accomplishing them. If the project will produce a design, please specify the level of design that will be developed (conceptual, preliminary, or final). Planning projects should typically be completed within 2 years of funding*.

|  |  |  |
| --- | --- | --- |
| **Task** | **Who Will Complete** | **Schedule** |
| Initial meetings with homeowners in small groups, presentation to stakeholder boards | Island County Dept. of Natural Resources | January – February 2016 |
| Formation of design team from homeowners and members of stakeholder groups | Island County Dept. of Natural Resources and Stakeholders | March – April 2016 |
| Saltwater intrusion risk analysis | Island County Hydrogeologist | January-March2016 |
| FEMA flood risk analysis | Subcontractor – TBD | January-March 2016 |
| Continued meetings of design team to develop designs and incorporate analyses results | Island County Dept. of Natural Resources and Stakeholders | May – September 2016 |
| General stakeholder outreach via community events | Island County Dept. of Natural Resources | April-October 2016 |
| Alternatives Analysis | Subcontractor – TBD | April-July 2016 |
| Conceptual design | Island County Dept. of Natural Resources and Stakeholders | July-September 2016 |

* 1. **Explain how you determined your cost estimates**. *Please attach a detailed budget for completing the scope of work. Include anticipated costs for labor, land acquisition, consultant fees and tasks, construction contracts, materials, and other relevant costs as appropriate.*

Project Cost estimates were determined by soliciting cost estimates from industry professionals for the Iverson Marsh Restoration conceptual design, FEMA flood risk analysis, and the saltwater intrusion risk analysis.

* 1. **How have lessons learned from completed projects or monitoring studies informed your project?** *Sources of results may be from* [*Project Scale Effectiveness Monitoring*](http://www.rco.wa.gov/doc_pages/other_pubs.shtml#monitoring) *from TetraTech, individual sponsors, lessons learned from previously implemented projects, Intensively Monitored Watershed results, or other sources.*

The lesson learned from previous projects is that stakeholders must be involved from the earliest stages of a project like this. They need transparent and frequent discussions and need to be listened to. If stakeholders aren’t supportive, the risk of failure of the project is increased. Landowner and stakeholder unwillingness has been a recurring issue in Island County. The project sponsors have undergone training in social marketing and informed consent building and plan on bringing this new knowledge set to this process.

1. **If your project includes an assessment or inventory** *(NOTE project may extend across a wide area and cover multiple properties)*.
	1. **Describe any previous or ongoing assessment or inventory work in your project’s geographic area and how this project will build upon, rather than duplicate, the completed work.**

The Iverson Stakeholder Integration Project will build upon the two previous Feasibility Studies for the Iverson Marsh (Iverson Farm Restoration Feasibility Study, 2001, and Flood Study to Determine Alternatives for Restoration and Enhancement of Marsh Habitat and Shoreline Process for the Iverson Farm Property on Camano Island, 2001) to further address the feasibility of restoring inter-tidal marsh to partial or all of the old Iverson Farm. The previous feasibility studies recommended that additional studies be conducted to ensure that the Long Beach residential development does not experience increased flood hazard as a result of proposed restoration actions. This phase of feasibility will assess potential flood hazard as well as salt water intrusion risks using a hydrodynamic model that simulates water surface elevations during storm surge events.

The Island County Noxious Weed Program is currently implementing the Iverson Preserve Noxious Weed Management Plan 2013-2020 to present effective long term noxious week managmetn strategies guided by a detailed implementation schedule using species specific integrated control methods. The majority of the noxious weed control work at Iverson has been the Spartina control effort funded through the Washington State Department of Agriculture (WSDA) since 1996. In 1996 there were approximately 20 solid acres of Spartina in the mudflats off Iverson. In 2013, only 0.105 acres were found and treated with herbicide and an additional 13 square feet of plant material were dug up and removed. Island County’s current contract with WSDA for Spartina control extends through June 30,2015. The goal is to have all of the Spartina eradicated by this time.

1. **If your project includes developing a design:**
	1. **Will your project be designed by a licensed professional engineer?
	No**
		1. **If not, please describe the qualifications of your design team**.

This project will produce a conceptual design only. Future phases will require licensed professional engineers.

1. **Will you apply for permits as part of this project’s scope?
No**
	1. **If not, please explain why and when you will submit permits.**

No permits are necessary for this phase of conceptual design development. Further permits and timeframes are dependent on the success and outcomes of this proposed phase.

1. **If your project includes a fish passage or screening design**:
	1. Has your project received a Priority Index (PI) or Screening Priority Index (SPI) number? If so, provide the PI or SPI number and describe how it was generated. *(i.e. physical survey, reduced sample full survey, expanded threshold determination, or Washington Department of Fish and Wildlife generated. Refer to the Washington Department of Fish and Wildlife’s “Fish Passage Barrier and Surface Water Screening Assessment and Prioritization Manual” at:* [*http://wdfw.wa.gov/publications/pub.php?id=00061*](http://wdfw.wa.gov/publications/pub.php?id=00061) *for guidance)*.
	2. **For fish passage design projects:**
		1. **If you are proposing a culvert or ach, will you use stream simulation, no slop, hydrologic, or other design method?** *Please describe*.
		2. **Describe the amount and quality of habitat made accessible if the barrier is corrected.**
		3. **List additional upstream or downstream fish passage barriers, if any.**
2. **Context within the Local Recovery Plan**.
	1. **Discuss how this project fits within your regional recovery plan and/or local lead entity’s strategy to restore or protect salmonid habitat** (*i.e., addresses a priority action, occurs in a priority area, or targets a priority fish species*).

Restoration of the pocket estuary at Iverson Preserve is a high priority in the WRIA 6 recovery plan strategy. Restoration is second in priority only to acquisition as a recovery strategy in WRIA 6. The proposed restoration site is located within the highest priority area due to its proximity to a natal river, Stillaguamish River. Restoration will expand Chinook rearing habitat for fish migrating from the Skagit, Stillagaumish and Snohomish rivers.

Additionally, this project addresses the Island Local Integrating Organization’s (ILIO) Near Term Action (NTA) to restore tidal inundation to one or more pocket estuaries or tidal wetlands (NTA # A6.1.ISL6).

* 1. **Explain why it is important to do this project now instead of later.** (*Consider its sequence relative to other needs in the watershed and the current level and imminence of risk to habitat).*

The overall project will take several years to achieve due to the required phasing and large number of stakeholders. There are some current concerns among the landowners that involve the current state of the Preserve. There are also concerns from patrons who currently utilize the County Park. Island County will work diligently to incorporate the stakeholder’s concerns to find a balanced approach and gain citizen support for habitat restoration at Iverson Marsh.

Additionally, there is an pressing need to provide habitat for juvenile salmon that are out-migrating, hopefully in increasing numbers, from the Stillaguamish River due to recovery efforts in that watershed.

* 1. **If your project is a part of a larger overall project or strategy, describe the goal of the overall strategy, explain individual sequencing steps, and which of these steps is included in this application for funding.** *Attach a map in PRISM that illustrates how this project fits into the overall strategy, if relevant.*

N/A

1. **Project Proponents and Partners.** *Please answer the following questions about your organization and others involved in the project.*
	1. **Describe your experience managing this type of project**. *Please describe other projects where you have successfully used a similar approach.*

Island County will manage and oversee the Iverson Stakeholder Analysis. Island County has successfully provided project management and construction management for all phases of Ala Spit restoration project since 2005. All plans, specs, and engineering will be subcontracted by a qualified engineering consulting firm

* 1. **List all landowner names**. *If your project will occur on land not owned by your organization, attach a Landowner Acknowledgement Form (Manual 18, Appendix F) in PRISM from each landowner acknowledging that his/her property is proposed for SRFB funding consideration. Multi-site acquisition projects need only attach a Landowner Acknowledgement Form for priority parcels.*

Island County

* 1. **List project partners and their roles and contributions to the project**. *Attach a Partner Contribution Form (Manual 18, Appendix G) from each partner in PRISM. Refer to Manual 18, Section 3 for when this is required.*

Island County will partner with Island County Shore Stewards to facilitate neighborhood/stakeholder meetings to address concerns and explain the site restoration benefits, and feasibility and/or identified conceptual design options to reach a preferred alternative to advance habitat restoration at Iverson Preserve. Island County will seek more partnerships and perhaps alternative sponsorship for future phases of this project.

* 1. **Stakeholder Outreach**. *Discuss whether this project has any opposition or barriers to completion besides funding. Describe your public outreach and feedback you have received. Are there any public safety concerns with the project? How will you address those concerns?*

The main purpose of this project phase is to integrate stakeholders. It is expected that there may be some difficulty reaching all neighboring homeowners due to the fact that most of the neighboring homes are vacation homes. Many of the permanent residents and stakeholders, including the current lease holder, have been contacted and made aware of this project and they are cautiously supportive of this approach towards meeting common goals. Other landowners will be reached with mailings of public meetings and workshops. Other stakeholders, including park users, will be notified by fliers and postings at the County Park as well as through local interest groups. There are no public safety concerns for this phase.

## Supplemental Questions

### Acquisition Project Supplemental Questions – N/A

## Comments

Use this section to respond to the comments you will receive after your initial site visits and after you submit your final application.

### Response to Site Visit Comments

Please describe how you’ve responded to the review panel’s initial site visit comments. *We recommend that you list each of the review panel’s comments and questions and identify how you have responded. You also may use this space to respond directly to their comments.*

*Please clarify the project deliverables and how each aspect of the outreach, research, and analysis will be documented.*

Deliverables include the two reports resulting from the analyses as well as the documented process of stakeholder integration. The stakeholder integration documentation will include a log of time involved, meeting agendas and summary notes. Additionally, copies of any material produced for dissemination will be retained by the County.

*Please provide more information on the activities included in the conceptual design task and what the outcome will be. Often conceptual designs are prepared to inform an alternatives analysis being conducted at the same time. Since the proposal does not include an alternatives analysis, it is not clear why such a substantial budget is included for the conceptual design task. Will multiple conceptual designs be advanced or just one?*

The process around the development of the conceptual designs has been left fluid intentionally. It is integral to the process that the stakeholders feel they are involved from the beginning and that there are no preconceived designs or intentions that we are trying to convince them of. So it is the goal of the project to result in 2-3 designs that can be advanced to an alternative analysis in the next phase. But the result may be 1 design with stakeholder consensus.

*Consider the option of moving the parking access to the roadway entrance to the community as part of the analysis.*

This will be suggested to the stakeholders as a potential component to the designs that are developed.

*Please clarify what the flood risk analysis task entails and the expected deliverable and outputs that it will contribute to discussions with landowners and future restoration. During the site visit, it was mentioned that FEMA recently completed a flood mapping analysis. What portions, if any, of the FEMA work are at an applicable level of detail and resolution to support the proposed analysis? The 2001 feasibility study by PWA described a lack of topographic data for the residential area. Will that be included in this task*?

The goal of incorporating the analyses for this phase is too address the knowledge gaps identified in the 2001 PWA study. The county recently received the updated FEMA maps. These will be included in the stakeholder conversations, as well as forwarded to the subcontractors performing the flood analysis. The sponsors will be relying on the expertise of the subcontractors to determine what exactly the study will need to incorporate and what new data needs to be gathered and analyzed in order to inform the concerns of the neighboring homeowners regarding flooding.

*Provide more information on documented fish use in the accessible portion of the marsh.*

The Stilliguamish Tribe has conducted beach seining at the mouth of Iverson. The sponsors are still attempting to get copies of the reports. It is possible that these studies could provide pre-restoration monitoring data. The sponsors intend to collect and apply other neighboring studies and restoration effort lessons learned as identified during the site visits. The Nature Conservancy, Snohomish Conservation District and Snohomish Marine Resources Committee will be contacted for any related information or data they can provide.

* *Please provide information on the benefits of the self regulating tide gate as compared to the current tide gate.*

According to Greene et al (2012), self-regulating tide gates do not provide nearly the same level of benefit to juvenile Chinook that open channels do, but are slightly better than flap gates, which is what is currently installed at Iverson. This information will be provided to the stakeholder group and design team for their consideration (Greene, C, J Hall, E Beamer, R Henderson, B Brown. 2012. Biological and physical effects of “Fish-Friendly” tide gates).

*The 2001 feasibility study by PWA reports 20 acres of Spartina in the outer marsh area. Please describe the current extent of Spartina on the site.*

The Island County Noxious Weed Program is currently implementing the Iverson Preserve Noxious Weed Management Plan 2013-2020 to present effective long term noxious week management strategies guided by a detailed implementation schedule using species specific integrated control methods. The majority of the noxious weed control work at Iverson has been the Spartina control effort funded through the Washington State Department of Agriculture (WSDA) since 1996. In 1996 there were approximately 20 solid acres of Spartina in the mudflats off Iverson. In 2013, only 0.105 acres were found and treated with herbicide and an additional 13 square feet of plant material were dug up and removed. Island County’s current contract with WSDA for Spartina control extends through June 30,2015. The goal is to have all of the Spartina eradicated by this time.

Response to Post-Application Comments

Please describe how you’ve responded to the review panel’s post-application comments. *We recommend that you list each of the review panel’s comments and questions and identify how you have responded. You also may use this space to respond directly to their comments.*