

DeBay's Slough Habitat Restoration - Feasibility Study and Conceptual Design

5/24/22 Advisory Group Meeting #1

DRAFT NOTES

6-3-22

[Link to recording](#)

Password: 3wWNEHB^

Participants

Study Team:

Emily Derenne*, Skagit County
Bob Warinner, Washington Department of Fish and Wildlife
Curran Cosgrove, Washington Department of Fish and Wildlife
Joey Smith, Natural Systems Design
Torrey Luiting, Natural Systems Design
Melanie del Rosario, Veda Environmental
Hilary Wilkinson, Veda Environmental

Advisory Group Members Present:

C.K Eidem, Ducks Unlimited
Martha Jordan, Northwest Swan Conservation Association
Grace Kane, Skagit County
Tim Manns, Skagit Audubon Society
Rick Billieu, Washington Waterfowl Association
Devin Smith, Skagit River System Cooperative
Jamie Black, Local Landowner
Earl Jones, Local Landowner

Kim Cashon-Smith, Local Landowner
David and Lucinda Baumgartner, Local Landowner
Daniel Zimmerman, Washington Department of Fish and Wildlife
Colin Wahl, Skagit River System Cooperative
Leonard and Bob Halverson*, Local Landowners
Tony Wisdom*, Skagit Valley Farm

Others who have expressed interest but were unable to attend:

Callie Moore, Washington Department of Fish and Wildlife
Michael See, Skagit County
John Davidson, Skagit County
Robert Waddell, Washington Department of Fish and Wildlife
Robert Dow, Local Landowner
Jenna Friebel, Drainage District Consortium

Brandon Roozen, Western Washington Agriculture
Rick Hartson, Upper Skagit Indian Tribe
Bridget Kaminski, Washington Recreation and Conservation Office – Salmon Recovery Funding Board

*In-person at Skagit County office

Welcome and Introductions

Overview

- DeBay is the correct spelling according to Martha Jordan, who personally knew the family. The family name is DeBay. The official name of the area is the Johnson-DeBay Swan Reserve. DeBay's is the possessive form of their name. The project team agreed to use DeBay going forward (and DeBay's in the possessive form).

Introductions (in order)

Name	Entity (if applicable)	Connection with project/other background info
Project Team		
Emily Derenne	Project Manager, Skagit County	Has worked on salmon projects since 2007; is the point of contact (along with Bob Warinner at WDFW) moving forward.
Bob Warinner	Asst. Regional Habitat Program Manager, WDFW	Has worked on Skagit for a long time. This project is in the Chinook Recovery Plan and occurs primarily on WDFW land.
Curran Cosgrove	Washington Department of Fish and Wildlife	Works with Skagit Wildlife Area (WDFW) – manages property at DeBay Slough that WDFW owns; manages the surrounding game reserve. Also representing manager, Greg Meese.
Torrey Luiting	Ecologist, Consultant Team Project Manager, Natural Systems Design	Project Manager and Wetland Biologist. Has done numerous wildlife surveys and has extensive experience with feasibility studies and projects that are at the early stages of planning, like this one.
Joey Smith	Engineer with Natural Systems Design	Has worked on river and stream projects for 10 years; focus has been on salmon projects. Will work with the team's geomorphologist.
Advisory Group Members		
CK Eidem	Regional Biologist, Ducks Unlimited	Focused on the west side of Washington. Has worked on many projects on the Skagit.
Martha Jordan	Executive Director, NW Swan Conservation Association	Sits on Citizens Advisory Committee for Skagit Wildlife Area. Has a long history there; worked with the DeBay family to get original grant funding for the swan reserve.
Grace Kane	Skagit County	Director for Skagit County Public Works, County Engineer
Tim Manns	Conservation Chair, Skagit Audubon	30-yr resident of Mt Vernon. Frequent visitor to the site. Frequents the area, especially in winter; does bird surveys.
Rick Billieu	WA Waterfowl Association, Board member; Chairman of NW Chapter (Island, Skagit, Snohomish Counties).	35-year area resident; advisory member of Skagit and Snoqualmie Wildlife Areas.
Devin Smith	Habitat Restoration Director, Skagit River System Cooperative	Interested in potential to benefit Chinook.

Name	Entity (if applicable)	Connection with project/other background info
Jamie Black	Local Landowner	Moved to DeBay Slough in January, curious to see what is going on in backyard.
Earl Jones	Local Landowner	Owns the property downstream from DeBay Slough. Have been a Skagit Co. resident entire life.
Kim Cashon Smith	Local Landowner	A recent resident of Sedro Woolley; has been a birder for the last 20 years. Has worked with Martha. DeBay is in her backyard, curious as to what will happen in the area next.
David Baumgartner & Lucinda Baumgartner	Local Landowner	Has farmed land on the south side of the island since 1996. Anything that happens with the slough may have an impact on the farm.
Daniel Zimmerman	Habitat Biologist, WDFW	Deals with swan mortality during the winter, also works on habitat restoration, comes in after the projects and does vegetation management.
Colin Wahl	Skagit River System Cooperative	Interested in chinook recovery; grew up in Mt. Vernon.
Leonard and Bob Halverson	Local Landowner	Leonard owns property near DeBay Slough and across the river. His son, Bob Halverson, joined the meeting to help convey information.
Tony Wisdom	Skagit Valley Farm	Farm owner in the area.

High Level Overview/Meeting Purpose

Emily Derenne provided a high-level overview of the purpose of the meeting, as well as information about the invitation process for the Advisory Group.

Highlights include:

- Those invited to the meeting and to the Advisory Group are individuals who live close to the slough or are key members of one of the user groups.
- DeBay Isle Road has a failing culvert that also blocks fish passage, which precipitated the County's interest in looking at things more broadly.
- Staff believe that the slough was historically good salmon habitat and provides opportunity for potential restoration. Because of that link, funding from the Salmon Recovery Funding Board (SRFB) was provided.
- The site was originally purchased by Washington Department of Fish and Wildlife (WDFW) for swan habitat.
- The overall purpose of the study is to evaluate if there are restoration opportunities to improve juvenile chinook rearing habitat in the context of the site, its neighbors, and all species that depend on DeBay Slough.
- The team is very early in the project; shared analogy of "trying to get a preschooler off to kindergarten".
- If the team determines that there are possibilities, they will advance them to conceptual design, then preliminary design and permitting, then final design, then construction.
- If things go smoothly, a project could get built in 2027.
- Current funding only goes through conceptual design phase.
- Purpose of this meeting:
 - Get to know everyone

- Understand where the project is at and its goals
- Hear input, suggestions
- Get comfortable with how everyone can fit into the project.

Study Background, Context, and Purpose

Torrey Luiting and Joey Smith of Natural Systems Design provided an overview of the study background. Highlights include:

- The swan preserve is in the center of the site
- The slough itself is divided into an upper slough and a lower slough (culvert down to west edge)
- There is a connector channel that conveys water between the slough and the Skagit River (to the west)
- Important bookends regarding the project:
 - It is funded with Chinook recovery dollars – the aim is to determine if there is something to be done to benefit juvenile Chinook
 - It is NOT
 - a study to look at upstream connection to the Skagit River
 - a flood reduction study, or flood damage reduction
 - going to change the nature of the swan reserve, or any regulations regarding hunting
 - going to modify the Skagit and the degree to which it floods
 - It WILL look at the potential to address limiting factors affecting juvenile Chinook in the Skagit River.
- This project began in early 2022. The team has just started looking into existing conditions. It is necessary to first understand existing conditions prior to taking further steps.
- Preliminary work completed:
 - Bathymetry in the slough (including connection to river)
 - Topography of surrounding land
- The project team has walked the site with survey gear, including a depth finder and an inflatable raft to survey in the slough itself. They have collected survey data and combined it with publicly available Lidar data.
- This information helps the team understand the width and depth of the connector channel and slough and the associated elevations of the landforms, which will help with future hydraulic analysis. This future analysis will include a deeper look at depth and velocity in the channel, including in DeBay Slough.
- Within the connector channel, the team saw flow depths of approximately two to three feet. A lot of wood has accumulated at the confluence with the Skagit River.
- Part of this work also involved a review of older photos to understand the historical context. The 1881 Government Land Office (GLO) map shows the Skagit River in the location of the slough. A 1937 aerial photo shows that the slough is in the present-day location. In this image, DeBay Isle Road is in place and farming is occurring in what is now the swan preserve.
- Land uses today go back to 1930s.
- The area is currently very important to tundra and trumpeter swans which migrate south to over winter in the area. Swans rest on the surface of the slough for night roosting.
- Two days of qualitative winter wildlife surveys were conducted at dawn and at dusk, key findings include:
 - An interesting observation from these surveys: the curve in the lower slough where the water is deepest is where a lot of swans come in, land, and get ready for evening roosting.
 - A wide variety of other waterfowl species also use the area. The survey team talked to hunters and got anecdotal information which is supplemented by a larger network database (ebird) where birders record their observations.

- The Skagit River Valley is on the Pacific Flyway, an important area for winter and spring migration including as a refueling area for neotropical migratory birds
- There is a beaver lodge on the north shore of the lower slough
- There is a bald eagle nest in the woods on the north shore of the lower slough
- It is an amazing area from a wildlife perspective. The slough has been stable for a long time, which has created a lot of edge (transitional) habitats that are important for a variety of species.
- Next steps for technical work will include:
 - developing a hydraulic model to look at movement of water under existing conditions
 - understanding species currently in the slough (trying to get input in terms of timing and use of connector channel by chinook, steelhead, or are there warm water fish? etc.)
 - working up the existing conditions data
- Ultimately, the team is trying to determine if there is a feasible project that meets the goals and objectives.

Questions

1. *(CK) It sounds like an ambitious project. Is the culvert repair on a separate timeline?*
 - **Response** (Emily): The culvert hasn't failed yet; it's failing, it's a known fish passage barrier. It is not necessarily on a separate timeline. Brief history: originally the county went in just to look at culvert, but decided to look at a bigger, broader project. It's hard to look at the culvert without knowing what's going on with the slough.
2. *(Bob Halverson) Does fresh cold water have to be put in there to support the juveniles?*
 - **Response** (Torrey): The temperature data so far tells us that it is warm in the summer, but there is no answer yet as to what it would take to make it more viable. The team is trying to figure out what the water quality is now, and what would it take to make it feasible for salmon to rear in the slough.
 - Note: juvenile salmon rear in off channel areas in both winter and summer, so the project is looking at both seasons.
3. *(Martha) How did you determine the land ownership in the slough?* The adjacent landowners are not listed as owning the bottom of DeBay Slough downstream of the culvert. Some think it's WDFW; Martha believes that some of that land is privately owned. She could not find records at Skagit Co.
 - **Responses/Discussion**
 - (Grace): A surveyor could do some research and maybe figure it out; asked if the river was considered waters of the state?
 - (Bob Warinner): Generally, the land under water is owned by DNR, but in Skagit it bounces around. His assumption is that it's DNR but there would need to be more research.
 - (Emily): Has a map of ownership based on the assessor's data; will share with Martha and post on website.
 - (Comment from Martha): I've been intimately familiar with the whole area. There are still inholdings that aren't privately owned, some were bought out more recently. Would like to see the property ownership map that the team is using, thinks it's important that institutional memory be looked at because there are some things that the team may or may not be aware of.
 - (David): Noted that he pays property taxes for land underwater.
4. (Comment from David): The fish that are already in the slough are predominately largemouth bass, perch, bluegill, catfish, and bullfrogs. The water temperature in summertime is close to bath water. It seems like these issues would make this project difficult to go forward.

5. (Comment from Lucinda): The slough dried up completely a few years ago and they moved the bass, bluegill, catfish ect. to where there was water. Beavers control the outflow aggressively and are pretty well established.

Member Input

Roles and Responsibilities

- Melanie del Rosario shared details about Advisory Group Member roles and responsibilities, which include:
 - Participation in three Advisory Group meetings
 - Provide input on key partner and stakeholder relationships
- All advisory group members agreed to the roles and responsibilities. Martha noted a deeper concern regarding cultural knowledge and asked that the team ensure that users who frequent the area and/or are attached to the property and know the history are fully included in this effort.
 - Emily and Bob would like to hear Martha's suggestions for others who could share input and possibly join the advisory group.

Input on study site and study purpose

Torrey asked for input on specific issues regarding the study site and the study itself. Highlights include:

Water level marks from floods, particularly November 2021

- (Earl): Has seen the connector completely dry up in the summer during hot periods. I would be worried that the baby salmon might get trapped in the slough.
- (Leonard): Noted that the water level was higher this time than in the 1990s, even though the gauges say differently. Leonard recorded 28 and ¼ inches at the stove in his house during the flood.
- Leonard and Tony mentioned that this flood was much deeper than previous floods. This flood was very different because it was so deep but had WAY lower CFS than prior floods. Convinced that water is getting out of the area much slower due to work downstream on the levees.
- (David): Flooding in November 2021 was significant. The slough itself is affected year-round by the river going up and going down. Heavy rains, heavy snowmelt, etc. affect it. Lucinda agreed. In the past 25 years, its flooded in all seasons year-round and people don't take notice because it's just us experience the flooding. If you're looking for a space for small fish to be safe, that would not be the space.
- (Earl) Noted that last Fourth of July weekend there was a heat wave that melted the ice caps in the north Cascades that resulted in a small flood on his land. Summertime floods could trap wildlife on land. He described crawfish hundreds of feet inland stranded after minor floods.
- (Leonard) Described the situation after a flood in 1995 flood. Afterwards, he had surveyors take legal elevation shots around it. There's a copy available; should track it down in the County's Planning Dept.

Photos of the DeBay's Isle Road culvert?

- No discussion.

Observations/thoughts on turbidity near culvert?

- No discussion.

Photos or observations of the slough and changes in vegetation conditions over time?

- Martha offered to look for some. She noted that they will be film, not digital pictures.

Photos or observations of the connector channel over time?

- No discussion.

Information about recreational use of the slough?

- No discussion.

Study Goal and Objectives

- (David) Expressed concern that bringing salmon back into the slough would result in additional restrictions and requirements on his farm, such as having to plant trees and/or providing a buffer. Noted that there is no access in the slough most of the time; there is no water flowing between slough and river. They are unsure how salmon would get there to be reared.
- Concern was expressed regarding the logistics of trying to cool the water (bringing river water in from upstream) and that this could disrupt swans.
 - **Response (Bob):** Reiterated that this is the very beginning of a very cursory look at opportunities that may or may not exist out there. Regarding salmon and water quality: there are some good quality habitats that are only available at certain times of the year. It depends on the species and stocks within species. There is a time of year when this habitat could really work for salmon.
- (Martha): Expressed support for the study and noted that we need to know the information; however, we need to be clear that we want farmers farming; anything that deters from that will have a negative impact on waterfowl use in the valley. Need waterfowl-friendly farming. What happens at DeBay Slough is important when we look at the big picture.
- (Daniel): *When was the winter waterfowl survey? The month-by-month is variable.*
 - **Response (Torrey):** A qualitative survey was done on Jan 26 and Feb 17 2022. Jan 26th was an evening survey; Feb 17 was a dawn survey.
- (Tony): Expressed general concern when projects like this are on the docket and government agencies are involved. It is viewed as a way to open a door and then morphs into something different over time in the long term.
 - **Responses**
 - (Emily): Acknowledged concern and noted that one of the driving forces/drivers for this study is because it is located on public property and would not encumber private lands.
 - (Bob): Also acknowledged the concern and noted that it's something that the group has been thinking about. Asked if Tony would stay engaged and participate and help us with that concern as study unfolds.
 - (Grace): Skagit Co wants to support projects beneficial to salmon recovery; however, the County won't move it forward if the property isn't owned by the county or if private owners are not in support.
- Comment from an advisory group member that they think WDFW might own more property on the outside than suggested. Asked that the team check that.
 - Emily will double check the landowner map and share with the group and post to the website
- Leonard shared that Jack Moore at Skagit County has a copy of Leonard's 1996 survey after the flood. Emily will ask for this and share it with the group.
- There was a general reminder that some farmers likely have surface water rights to the slough so whatever is proposed needs to be sure that we're not encumbering that.

- **Response** (Emily) this is a great comment and will likely be addressed in a later phase.
- Tony asked for further explanation as to why the County can't just fix the culvert and if the County can't fix the culvert without doing all this work, why don't we let it fail?
 - **Response** (Emily) Skagit County can't leave WDFW abandoned and that there is an RCW that won't allow the County to vacate roads to water.

Next Steps

- A project webpage will be live by May 25.
- Meeting notes (and the meeting recording) will be distributed to the Advisory Group.
- Evaluation criteria will be developed to help the team figure out a suite of ideas for conceptual actions.
- A second Advisory Group meeting will happen in July or August to present updated existing conditions, develop evaluation criteria and begin to develop actions that could form part of conceptual alternatives.
- A third Advisory Group meeting will happen in October or November. Members will review criteria and use that input to rank the alternatives to see if one rises to the top.
- A public open house will take place in about January 2023. If there is a viable alternative chosen, it will be presented, along with construction estimates (if applicable).
- If the team can get through these steps, then Skagit County and WDFW will look for funding for construction.

Action Items/Agreements

- The project team agreed to use DeBay going forward (and DeBay's in the possessive form).
- Emily will:
 - check with Jack to find survey results from the 1995 flood and share with the project team
 - share the map of land ownership with the group
 - share a copy of Leonard's 1996 survey after the flood
- Martha will
 - look for photos (film, not digital) of the slough
 - share suggestions for other possible advisory group members who can share local knowledge