



DRAFT MEETING MINUTES

Land Bank Commission Meeting December 17, 2021 Virtual ZOOM Meeting

Commission Members in Attendance:

Jim Skoog, District 1, position 1	Brian Wiese, at large, position 4
Sandi Friel, District 2, position 2	David Meiland, at large, position 6
Miles Becker, District 3, position 3	Christa Campbell, at large, position 7

Commission Members Absent:

Land Bank Staff in Attendance: Lincoln Bormann, Peter Guillozet, Eliza Habegger, Erin Halcomb, Doug McCutchen, Aaron Rock, Kayla Seaforth, Amanda Wedow, Jacob Wagner, Tanja Williamson

Land Bank Staff Absent: Shauna Barrows

County Council Liaison: Christine Minney

County Manager: Absent

Public in Attendance: 24 individuals over the course of the meeting.

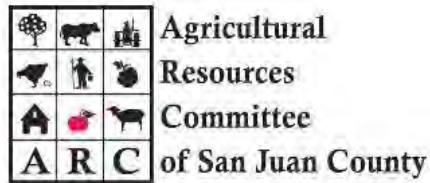
Topic	Key Discussion Points & Agreements
Call to Order 8:31 am	Sandi Friel, chair, called the meeting to order.
Public Comment 8:32 am	There was none.
Adoption of Minutes 8:33 am	The draft November 19, 2021 minutes were reviewed. There were corrections. Minutes were approved.

<p>Council Liaison 8:37 am</p>	<p>Christine Minney reiterated the Council declared a state of emergency after the epic rain event in November which opens the door to federal money for damage repair. Orcas Island was acutely impacted.</p> <p>The biennial budget passed on December 7. Also, the Council extended the current moratorium on vacation rentals in all UGA's in hamlets and activity centers while they await recommendations from the planning commission on the future of vacation rentals in San Juan County.</p> <p>Employee recognition and appreciation was December 14 and Christine congratulated Charlie Behnke on celebrating 5 years with the County.</p> <p>Specific to commission vacancies Christine related that the Prosecuting Attorney's office clarified that any Commissioner having served a partial term and a full term (4 years) is still eligible reapply to serve. At this time there are three confirmed applications for the positions. The applications will be forwarded to the chair of the Commission. Christine noted that Council is interested in any recommendations coming the Commission. Sandi asked if the end of December is the application deadline. Christine thought so but would double check with Ingrid. Lincoln noted that he didn't think there is a confirmed deadline, but the Commission hopes to have all seats filled by the January meeting.</p>
<p>Chair and Commissioner's Report</p> <p>Selection of 2022 Officers 8:43 am</p> <p>Acknowledgement of Doug Strandberg</p>	<p>Sandi asked the 2022 officer's nomination committee for their recommendations. Sandi Friel was nominated for second term as Chair; David Meiland was nominated for Vice-chair; and Jim Skoog was nominated for Finance Officer. All nominees were voted in unanimously.</p> <p>Doug Strandberg retired from the Commission. Sandi thanked him for his good work over the last 12 years, as did Lincoln and other commissioners.</p>
<p>Director's Report 8:53 am</p> <p>San Juan Island</p> <p>Lopez Island</p>	<p>Lincoln reported there are currently three acquisitions up in the air and it doesn't look like any of them will close by year's end.</p> <p>Hauschka Properties – Background: These two 40-acre parcels include the top of Cady Mountain adjacent to the Cady Mountain Preserve, and separately, the parcel adjacent to Mount Grant Preserve and the Town of Friday Harbor's Trout Lake property. Current: There are signed PSAs on both properties. Lincoln continues to work on access easement details for both.</p> <p>Higgins Property - Background: The last unprotected parcel on Watmough Bay, this 11.5-acre tract has over 2,000 feet of shoreline on the Bay and Rosario Strait, and is a high priority salmon recovery area. The upland area features the oldest house on Lopez dating back to the 1870's and a remnant homestead. This is also likely a significant cultural heritage site for the Coast Salish. The property will be going on the market with an asking price likely to be \$2.5M. Current: Lincoln said Larry Higgins contacted him to talk more about a caretaker possibility for some of the family members. Lincoln agreed to hold off on closing in order to discuss the</p>

Lopez Island continued	<p>opportunity. He said although it's not part of the purchase and sale agreement it could be beneficial to both the family and Land Bank in trying to caretake the property. He noted there are quite a few issues to look at for it to work, including crafting a lease. He hopes to have the acquisition wrapped up by the end of January.</p> <p>Christa asked if there was any obligation for the Land Bank to bring the building to habitable condition for family caretakers and whether this scenario is toying with the idea of a life estate. Lincoln said there is no assumption of a life estate. This would be a 2–3-year caretaker role, stemming from an idea that came up when the Conservation Fund was going to purchase the property and work to resell to the Bureau of Land Management within that hopeful three-year period. Lincoln agreed with Christa that there would be details to work through in terms of the lease and the condition of the residence. Sandi asked regarding lease process if it's over 2 years. Lincoln said it would be under 2 years with an opportunity to of renewal. Lincoln noted that having caretakers on the property who are familiar with the property and the structure will help with management issues.</p>
Public Comment	<p>Tracey Cottingham shared a fun photo and thanked Amanda Wedow for organizing a planting party at Lopez Island's Channel Preserve and thanked Eliza Habegger for growing the plugs.</p> <p>Steve Ulvi voiced his desire to keep bigger picture views in the forefront. He highlighted that our remote County is very susceptible and vulnerable to disruption. Climate change is upon us and he feels the mandate can be interpreted broadly to be a strengthening and preservation of community well-being and resilience. He would like to see acquisitions and stewardship be directed to more utilitarian needs in the future. Steve suggested looking at larger parcels near UGAs that are large enough that there can be some lease or temporary use for recycling and composting facilities. Sandi suggested including this as a future agenda item.</p>
Break 9:10 am – 9:15 am	
Public Hearing Draft Agricultural Policy 9:16 am Public Comments	<p>Kathy Morris asked if the Agricultural Resources Committee (ARC) had any comments and/or suggestions, and if so, where can they be found. Sandi commented that the ARC wasn't able to meet prior to today's meeting. They will send in any comments next week. Kathy followed up with a question asking how the lack of ARC input will affect the later meeting regarding Coffelt Farm Preserve. Sandi stated that while disappointing, the Commission needs to move forward with the planning meeting for Coffelt. She noted that Coffelt is a unique holding from all the properties. Sandi asked if Charlie had anything to share. Charlie agreed with Sandi's remarks and noted ARC members had an opportunity to submit comments individually.</p> <p>Bruce Gregory said he sent in a response and asked if any of the Commissioners had questions for him. Sandi thanked him for his in-depth comments and for being a resource.</p>

<p>Draft Ag Policy cont. Public comments continued</p>	<p>Faith Van de Putte, coordinator of the ARC, thanked the Commission for the hard work and thoughtfulness put into this guiding document and highlighted how important it is for the ongoing agricultural viability in the County. Faith said the work the Land Bank does in preserving agriculture land and keeping it available for production is important, especially in the changing nature of agriculture. She noted the need for flexibility in conservation easement (CE) language. David asked Faith for an example regarding the changing nature of agriculture.</p> <p>Faith responded that the traditional situation where a farm is passed down through generations is becoming far less common, and that many farmers are nearing retirement age. New cooperative farming models have emerged, where there may be more intensive and diverse farming on smaller acreages. However, the cost of land is prohibitive, and these kinds of operations require more housing to succeed. Faith also noted that the use of hoop and green houses to extend the growing season were important, but may be prohibited in CEs for aesthetic purposes. There was discussion.</p> <p>David asked Faith if constraints on infrastructure and buildings that have been written into CE's are problematic. Faith said yes. She noted in farming, depending on what's being produced, there is often a lot of need for protecting things from the elements, yet those structures may be prohibited.</p>
<p>Discussion</p>	<p>Returning to the document, Christa commented that she appreciated the summary of the county comprehensive plan regarding agricultural use. She would like to flesh out the idea of "fair and equitable" and what that means. Regarding upholding conservation values, she would like stronger language than "supporting and encouraging." As for adjusting the lessees rate based on contribution, she stated that she believes the Land Bank cannot legally do that. Overall, Christa liked the policy and appreciated all the work that went into writing it and the way it pulls together the stewardship and management plan and the County's goals for ag.</p> <p>Sandi asked for clarification regarding adjusting the lease rate based to account for work undertaken by the lessee. Lincoln explained that the value of whatever work was done would have to be objectively quantified.</p> <p>There was discussion regarding the County's bidding process. Sandi asked for staff to clarify what the process will be and incorporate into second draft.</p> <p>Sandi noted Bruce Gregory's comments resonated with her and agreed that she would like to see stronger language in the document. In particular, she said she believes there needs to be "bottom line" policies in place with measurable goals.</p> <p>She noted that as a public agency, the Land Bank is in a unique position of setting an example and displaying model practices. She continued to say that if the Land Bank raises the bar higher and then educates other farmers on model practices, and also encourages those practices on private land, then the Land Bank could achieve some of its objectives of preserving agriculture without investing any money in those private lands. She would like the Land Bank to set the bar high by leading by example.</p>

<p>Discussion continued</p>	<p>Also, in the leasing portion, Sandi noted there is a reference to a third-party advisory committee. She said as it is written, it conflicts with county policy and needs to be re-looked at.</p> <p>Doug agreed with Sandi's concern regarding the third-party advisory committee. His suggestion was to delete the entire advisory committee blanket requirement and instead institute it on a case-by-case basis, as has been done with Coffelt Farm. If not deleted, he recommended at least including the phrase "at the discretion of the Land Bank."</p> <p>Brian agreed with Doug's suggestion regarding the advisory committee. Brian also agreed about setting the bar as high as possible, but also agreed with Faith's comments about flexibility and change. Brian noted that he sees the document as guiding principles, and, with regard to soil quality, prefers the term "encourage," rather than "require" or "mandate." He also opposed a requirement on the Land Bank to monitor the condition soils.</p> <p>Brian cited the mandate, noting its stated purpose to acquire and preserve ag land, not to run ag operations. As far as monitoring soil standards, he believes we should acknowledge existing improvement standards, but should set specific standards in a lease. It's not the Land Bank's job to monitor.</p> <p>Christa respectfully disagreed. She would like to see a certain amount of monitoring, which she feels is different from management. She doesn't think it is the Land Bank's job to run a farm but that it does need to partake in monitoring the quality of certain resources to be sure they are maintained through the term of a lease. She agreed with Bruce and Sandi on a preference to see stronger words than "encourage."</p> <p>David agreed with Brian and also with Jim, preferring more flexible language in order to work across varied situations.</p> <p>There was discussion regarding language of guiding document vs. policy.</p> <p>Christa noted she doesn't think quantifiable measures need to be spelled out, but that policy language should be strengthened with supporting documents to outline how the Land Bank plans to monitor the soil, as well as what the soil is being monitored against. The details don't belong in the document, she said, but the commitment does.</p> <p>The public hearing discussion of the draft Ag Policy will resume during the January 2022 meeting where the Commission will review a second draft including updates from staff and ARC comments.</p>
<p>Future Agenda Items 10:18 am</p>	<p>Sandi suggested climate related items for the retreat. Lincoln suggested moving the retreat to February. Everyone agreed.</p>
<p>Meeting Adjourned 10:22 am</p>	<p>Chair, Sandi Friel, adjourned the meeting.</p>
<p>NEXT MEETING</p>	<p>The next LBC meeting is scheduled to take place January 21, 2022. It will be an extended meeting.</p>



Memorandum

To: Lincoln Bormann, Land Bank Director
Charlie Behnke, Land Bank Agricultural Coordinator

CC: Mike Thomas, County Manager

From: San Juan County Agricultural Resource Committee (ARC)

Date: 1/10/2022

Subject: Comments on the 2021 Agricultural: Overview, Objectives, and Policy

Protecting agricultural land from development and retaining historic and future productivity is vitally important to our future food security, agricultural viability and sense of place in the San Juan Islands. Rapid social and environmental change highlight the importance of remaining flexible in our ability to respond to unforeseen needs for local agriculture. The ARC sees the Land Bank Mandate (*To preserve in perpetuity areas in the county that have environmental, agricultural, aesthetic, cultural, scientific, historic, scenic or low-intensity recreational value and to protect existing and future sources of potable water*) as critical to this effort.

We recognize that the Land Bank has a complex mandate and that owning agricultural land and creating agricultural Conservation Easements contributes to this complexity. The Agricultural Resource Committee (ARC) strongly encourages establishing a clear and concise framework to guide acquisitions, easements and management plans to preserve agricultural productivity in perpetuity. The ARC supports the core values and processes outlined in the Land Bank's document *Agriculture: Overview, Objectives and Policy*. However, we recommend ambiguous language such as "when appropriate" or "aims to" be eliminated to ensure long term continuity and consistent expression of these policies.

It is the human work of farming which defines agricultural land. When conserving agricultural land, the primary goal should be maintaining active agriculture. Most of the ARC's comments try to answer the question: how do we protect the *agricultural function* of our agricultural lands, both now and into the future? If agricultural land is saved from development but agricultural activity is limited or prohibited, then the goal of conserving our agricultural lands for future generations is not met.

ARC Comments and Recommendations:

- In the *Summary of Conservation Goals*, we commend the policy of protecting parcels zoned as Agricultural Resource Land (ARL). We strongly recommend adding language to indicate that these lands are protected for “continued agricultural use”. It is the agricultural activity which defines agricultural land. San Juan County designated land with prime agricultural soil and long-term commercial significance as ARL specifically to protect it from development that could hinder future agricultural production. Limiting or prohibiting future agricultural activity on ARL lands in any manner, whether through stewardship plans or conservation easements, goes against the intent of this important land use designation.
- The term “regenerative agriculture” is in the process of being culturally defined. There are currently multiple bodies attempting to create a certification system. In the context of this document it would be helpful to either state the definition or reference it directly. Examples can be found at:
<https://www.google.com/url?q=https://regenerationinternational.org/wp-content/uploads/2017/02/Regen-Ag-Definition-2.23.17-1.pdf&sa=D&source=docs&ust=1641428499292348&usg=AOvVaw21fwML33Y2U1Dsw0GI3RL1> and
<https://www.google.com/url?q=https://regenorganic.org/&sa=D&source=docs&ust=1641428499292500&usg=AOvVaw0gFAPEZNXp1jTmb1U3B4fk>
- San Juan County is enrolled in the Voluntary Stewardship Program (VSP) which provides an alternative to the Critical Areas Ordinance and allows for continued agricultural activity in critical areas in accordance with the VSP Work Plan. If there is active agriculture on a parcel, the critical areas assessment and extent of agricultural activity should reflect the VSP guidelines rather than the CAO.

The San Juan Islands Conservation District implements the VSP. This includes monitoring and reporting water quality and ecosystem function benchmarks and helping farmers write Individual Stewardship Plans (also known as Farm Plans) . These plans outline a series of actions developed to meet the farmer’s goals, while protecting water quality and the natural resources within and around the farm property. Once in place Individual Stewardship Plans open up the possibility of cost share funding for infrastructure and actions that protect water quality and soil health. We recommend utilizing this existing resource to support the Land Bank and agricultural land managers in meeting their stewardship and production goals.

- On agricultural lands stewarded by the Land Bank, or conserved by easements held by the Land Bank, the viewshed and open space resource should be accessory to the primary agricultural use to ensure long term viability and

function of continued agricultural activity. Farming is not static, but rather a dynamic system that continues to evolve. Easements must recognize that infrastructure needs change, and allow for flexibility in agricultural activities that may change the view (e.g. hedgerows, infrastructure, farmworker housing, tree crops etc).

- Easements held by, or conveyed to other entities by the Land Bank should:
 - Prioritize the aforementioned principles to ensure continued agricultural function on agricultural lands (including land being actively farmed at time of purchase and all lands zoned ARL) by conserving historical and current continued agricultural activities.
 - Conserve the least restrictive setback and buffers on all ARL designated lands and avoid prescriptive restrictions on agricultural activities (eg fixed buffer distances from critical areas, or vegetation height restrictions) on all Land Bank properties with historic and current uses.
 - Encourage the implementation of agricultural best management practices such as the VSP to conserve long term agricultural value.
 - On ARL designate lands ensure management plans do not encumber nor disallow for future flexibility in agricultural activities, including infrastructure and type of agriculture.
 - We encourage the utilization of a “mandatory agricultural use” or “covenant to farm” clause that can be used as an additional safeguard to ensure the ongoing agricultural utilization of the land. These tools are being utilized by Land Trusts which specialize in the protection of farmland such as Marin Agricultural Land Trust, Sonoma Agricultural Land Trust and Equity Trust.
- In recognition that the Land Bank is not currently converting natural lands to agriculture, we recommend that when agricultural lands are acquired or protected with an easement, that the agricultural function be maintained or enhanced in perpetuity.
- In cataloging and comparing agricultural land held by the Land Bank, protected by easements and totals in the county, make sure that there is consistency between categories. Total acres of ARL are counted by acres in designated parcels although the whole parcel may not be in agricultural production or include residences and the built environment. The total acres of land with agricultural activity is a changing and elusive number.

- We recognize the complexity in creating metrics for soil quality markers and the need for flexibility depending on the soil, infrastructure and type of agriculture. In this case we recommend language that supports and encourages improvement of soil quality, rather than enforcement.

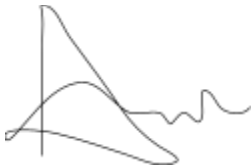
We recommend developing a multi part monitoring framework such as on page 30 of this document from the Delta Institute:

<https://delta-institute.org/wp-content/uploads/2020/04/Land-Tenure-and-Conservation-in-Agriculture-2019.pdf>. Collaboration with the SJICD to develop Individual Stewardship plans could help develop a management framework for specific properties.

- When setting market rate for rents, it is important to take into account the additional work, on the part of the lessee, of navigating the county system for any infrastructure maintenance and improvement and the expectation of community and/or education engagement.
- We recommend as part of this process a review of easements held on Land Bank land. It would be beneficial for public understanding to outline and report the steps taken when conservation easements are conveyed to other entities. A flow chart that shows the points of public input so that the process is transparent.

In the face of increasing development pressure and the challenges of land access for new and beginning farmers the Land Bank plays a crucial role in San Juan County. Thank you for your consideration,

On Behalf of the Agricultural Resource Committee



Annie McIntyre, ARC Chair



Faith Van De Putte, ARC Coordinator

STEWARDSHIP & OUTREACH REPORT

JANUARY 2022

OVERVIEW

Snowfall provided opportunity for kick-and-glide recreation as well as a layer of protection to all the vulnerable potted plants in the nursery (Photo 1). The deep freeze in late December generated concern for the thousands of plant plugs, most of which head to Turtleback Mountain next month, but luckily snowflakes accumulated and insulated the plants prior to the severe temperature drop; and survival looks to be high. Cold and blustery weather led to numerous trees falling across trails, which kept staff busy, as did the winterizing equipment, such as mowers and trimmers, for their winter nap. A sheet of ice and snow postponed driveway work at Fisherman Bay Spit, but it is rescheduled for later this month. (Fingers crossed for fair weather.). It's also approximately one year since Jacob, Shauna and Aaron joined the team and all of us agree: it's a delight to have them on staff. Even as he scrambled around San Juan and navigated the various elements of freeze and thaw, Jacob continued to smile (Photo 2). At the end of January, the entire staff will convene to discuss priorities and planning for the year ahead.

OUTREACH

Staff: Tanja Williamson

Tanja picked out some important happenings and produced the [2021 Highlights](#) (with a bit of help from Erin, although neither want to take credit for any misplaced commas). Tanja collaborated with Peter to develop a new first for the LB: signs with a QR code. For this, she developed the '[splash page](#)' in order to share info about the forest stewardship efforts on Turtleback Mountain and she assisted staff (Erin and Peter) and the Demo project partnership (SJI Conservation District and Rain Shadow Consulting) with their recent [virtual presentation](#).

Tanja has also started to assemble a 2022 outreach calendar. In her effort to develop numerous, diverse opportunities, she's been reaching out to stewardship staff as well as to other partnership organizations and resource professionals. She's excited to return to in person educational events, along with supporting stewards and volunteer work parties. Stay tuned for a peek at the calendar.

SALISH SEEDS NURSERY

Staff: Eliza Habegger

As mentioned, survival of the nursery plants appears to be high. The Salish Seeds Project has also decided to partner with the Master Gardener Foundation for the spring plant sale. This means that instead of running a separate spring plant sale like last year, nursery plants will be included in the Master Gardener's sale, and a duplication of effort is avoided. Online orders will begin in January, and plant pick-up on the three big islands is scheduled for March.

Jacob added shelves, hooks, and other handy details to the interior of the new nursery shed. The construction of this shed was funded by the SJPT and fundraising for this still continues. If we're fortunate, there will also eventually be funds for a greenhouse which would make it easier to reliably overwinter container plants.

DISTRICT 1

Staff: Doug McCutchen, Charlie Behnke, Jacob Wagner, Shauna Barrows

Staff received their long-awaited Kubota Stand-On Track Loader and they're eager to put it to use on so many of their planned projects including fencing, trail building, road improvements and mowing (Photo 3).

Beaverton Marsh: Karen Vedder has now joined the planning team and will assist by serving as a liaison to secure public access from Linde Field. Also, a local plein-air artist has been observed multiple times painting the marsh from their truck-bed, despite the inclement weather.

Cady Mountain: A small encroachment, within the construction of a driveway, was discovered and a resolution is in the works. The Islands Conservation Corps (ICC) decommissioned a trail on the northern flanks of the mountain and completed some restoration work in oak habitat.

Kellett Bluff: The Suquamish Tribe made a formal objection to the application to install a mooring buoy. In response, Doug reached out to the Tribe and has had promising conversations about having the objection withdrawn or modified.

Mount Grant: Staff received queries and comments regarding level of service on San Juan Island preserves, with an emphasis on Mount Grant. Specifically, questions were raised about

enforcement, signage, garbage facilities, and snow removal. An informal survey of other natural area managers (National, State and County Parks, DNR, and Island Rec) indicate that LB levels of service meet and/or exceed other agencies. The ICC endured the rain, learned about sustainable trail building guidelines from Doug, and broke ground on a new connector trail (Photo 4). Driving access to the summit has been closed for nearly three weeks due to the snow!

Zylstra Lake: While snowfall provided for cross-country skiing opportunities on the Preserve, an ice-free area at the outlet of the upper reservoir led to congregations of waterfowl. Geese, gulls and at one point an estimated 38 trumpeter swans, congregated within the area (Photo 5). Lately, there's been a flurry of planning related to the ecological resources and the resolution of water rights remains a critical step for both determining on-site and watershed-wide activities.

DISTRICT 2

Staff: Peter Guillozet, Kayla Seaforth

Orcas staff are eager to commence their favorite stewardship activity: planting! But that doesn't start until next month. In the meantime, Kayla completed annual monitoring using the new Landscape software and Peter has been counting culverts. He is working with a consultant to assemble a package (that includes permits and bids) to replace many of the 26 in total.

Coffelt Farm: The long-term lease committee prepared draft RFP documents for the Commission's review. Peter also prepared a quote request for electrical upgrades, and he hopes to find a qualified contractor to begin work as soon as possible.

Coho: Recent flooding led lower Cascade Creek to make some dramatic changes. A WDFW biologist, a wetland specialist, and others joined Peter in the field to review. Adult salmon were observed within the Preserve last fall, and although a female can lay thousands of eggs, everyone concurs that it's highly unlikely that any eggs were able to say put when the riffles transformed into such a scouring flow. However, hope remains afloat that Coho will return again this fall.

Judd Cove: The biologist from WDFW also provided consultation about the main culvert that directs flow into this preserve. He supported staff's assessment that the stream could not support fish above the culvert. This clears the way for planning and permitting to replace the undersized and poorly aligned culvert with one that can accommodate more volume within the historic flow path of the stream. Permitting is expected take a year or more. Sadly, it must be noted that it's

much easier to secure a permit to build within a floodplain than it is to receive a permit to perform river restoration. This, of course, confirms what many of us already know: ecological protection and restoration takes patience and persistence, and it'll most likely make you gray.

Turtleback Mountain: The Turtleback Demo has project has launched, and the new Stewardship and Management Plan has been distributed to key partners and Commission. Staff encountered minor encroachment issues at a property along the eastern boundary and they are working toward resolution with the landowner. Wild Rose Lane has reopened with a new culvert in place and repairs to the south entrance trail are in the works (Photos 6-7).

DISTRICT 3

Staff: Amanda Wedow

Channel: Volunteers planted a few hundred native plants around the parking area and shoreline and posed, despite the cold, to be captured on camera. (Photo 8).

FB Spit: December storms sent a sailboat aground. It landed near the old reef net boats. Amanda observed the owner trying to extricate it, without progress, and for several weeks the boat stayed put. However, last week's high tides succeeded in returning the hull back to the sea (Photo 9).

Hummel Lake: Continued algae growth on the dock created slick conditions, and Jacob readily traveled over to attempt remedy. He brought a rented pressure washer, a water pump, and numerous hoses and fittings. After some trouble shooting, he tackled the problem by pressure washing the entire dock. A fallen alder blocked the boardwalk near Port Stanley. But trusty volunteer Tim Clark helped to clean it up.

Spencer Spit: Staff has initiated discussions with the area manager for State Parks and will be developing a MOU with the agency for the site. A Stewardship and Management plan for the Preserve is also underway, with care and consideration being given to the ecological values such as the feeder bluffs, eagle roost and numerous yews.

Upright Head: The entry to the property was planted with some fresh greens from the nursery.

Photos



Photo 1. Skiing at Zylstra was a popular activity in the beautiful snow!



Photo 2. Jacob Wagner is one of the three joyful and hard-working staff that joined the LB one year ago!



Photo 3. The newest power tool to join the SJI family.



Photo 4. Doug shares his passion for sustainable trail building with the ICC



Photo 5. A congregation of swans is called a “wedge” in the air. Yet, on the ground they’re referred to as a “bank” or a “bevy.” Regardless, they’re one of the most charismatic species around here in the winter.



Photo 6. The ICC crew works within an area of the Turtleback Demo project



Photo 7. Culvert replacement at Turtleback Mountain Preserve.



Photo 8. Volunteers help to improve the ecology at the Channel Preserve, and despite the cold weather still pause for picture.



Photo 8. A sailboat was beached on the Spit until high tides lifted it back to the sea.



Photo 9. One curious Commissioner discovers a coral root fungus.

Haying at Zylstra Preserve

Summer 2021 Report

Sarah Pope & Adam Greene, Oak Knoll Farm



Goals



Our objectives for the first year of our short-term lease of the haylands at Zylstra Preserve were to get to know the land and current soil conditions, to practice with techniques and equipment that are new to us, and to put up both haylage and dry hay for use by a number of farms, ranging from full-time commercial operations to small homestead flocks.

We aimed to prioritize sustainable practices and respect for community in this mix-use public space and saw many opportunities for educational outreach about agriculture.



Haylage

We put up roughly 180 small round bales of haylage in late May/early June. Haylage is baled and wrapped within 24 hours of cutting to maintain maximum nutrition and to allow harvest without a 6-9 day dry weather window. Because it's cut earlier in the season, grasses can regrow before the period of summer dormancy arrives.

Dry Hay

In June we made about 1000 small square bales of dry hay on the upper field. The area marked in red represents the total area we hayed. Greg Black hayed the 14 acres shown in green. Roughly 300 bales were lost because of rain and mulched back into the pasture.

Rest

Roughly 40% of the leased acreage, west of the lake, was mown but not harvested, allowing the land to rest.

Hay School



Community Education

Opportunities to partner with other small farms arose organically during the harvest. Brien Sesby brought equipment and experience to the project and farmers from seven other farms helped with labor in exchange for part of the harvest. An informal community hay school was born as people learned to drive tractors, operate equipment, troubleshoot problems, and read the grass to determine readiness for baling. It was a terrific opportunity for beginning farmers who don't have the land or capital to invest in haying equipment themselves, but keep animals, need hay, and want to learn valuable skills. With contract haymakers on the island aging and retiring, there is urgent need to keep these skills alive in our community. Running a project like this on public land seems particularly meaningful and we hope to organize a similar effort for 2022.

Soil Testing & Research

To root our understanding of the health of the land in science, we took soil samples in the fall and established a test plot west of the outflow to study mechanical compaction remedies—chain harrow, aerator, both, and control—with researchers from the WSU extension office. This area is marked with flags.



Soil pH is low at 5.5%; this could be corrected with lime. Minerals are within the desirable range, apart from low potassium. Organic matter in the soil is low at 5.2%. Building organic matter takes a lot of time; managed grazing is one of the only ways to do it without a great deal of expense. We would be interested in bringing sheep into the ecosystem at Zylstra to help improve the pastures and soil.

Next Steps

In 2022 we plan to harvest the fields west of the lake and possibly a small part of the east field.

We had hoped to apply lime to the pastures in the fall of 2021, but unusually wet weather and ferry service breakdowns prevented this. We looking forward to working with the Land Bank to help steward this special preserve in 2022.

We will reach out to our small farms network this spring to organize the haying collaboration in advance, and we would like to structure a community education opportunity for the public to come view the work and ask questions.



2021 Details

Hayed: 48 acres (May–July)

- * roughly 1.15-1.5 tons hay/acre
- * roughly 15% haylage, 85% dry hay
- * Lost 5-6 acres to rain

8 participating farms:

- * 3 commercial operations
- * 3 homestead flocks
- * 1 horse boarding operation
- * 1 advisory

Mowed: 24 acres (August)

- * 20 hrs mowing; 1.75 setup & transport
- * 5-7" stubble height
- * 6' flail @ ~ 4.8mph

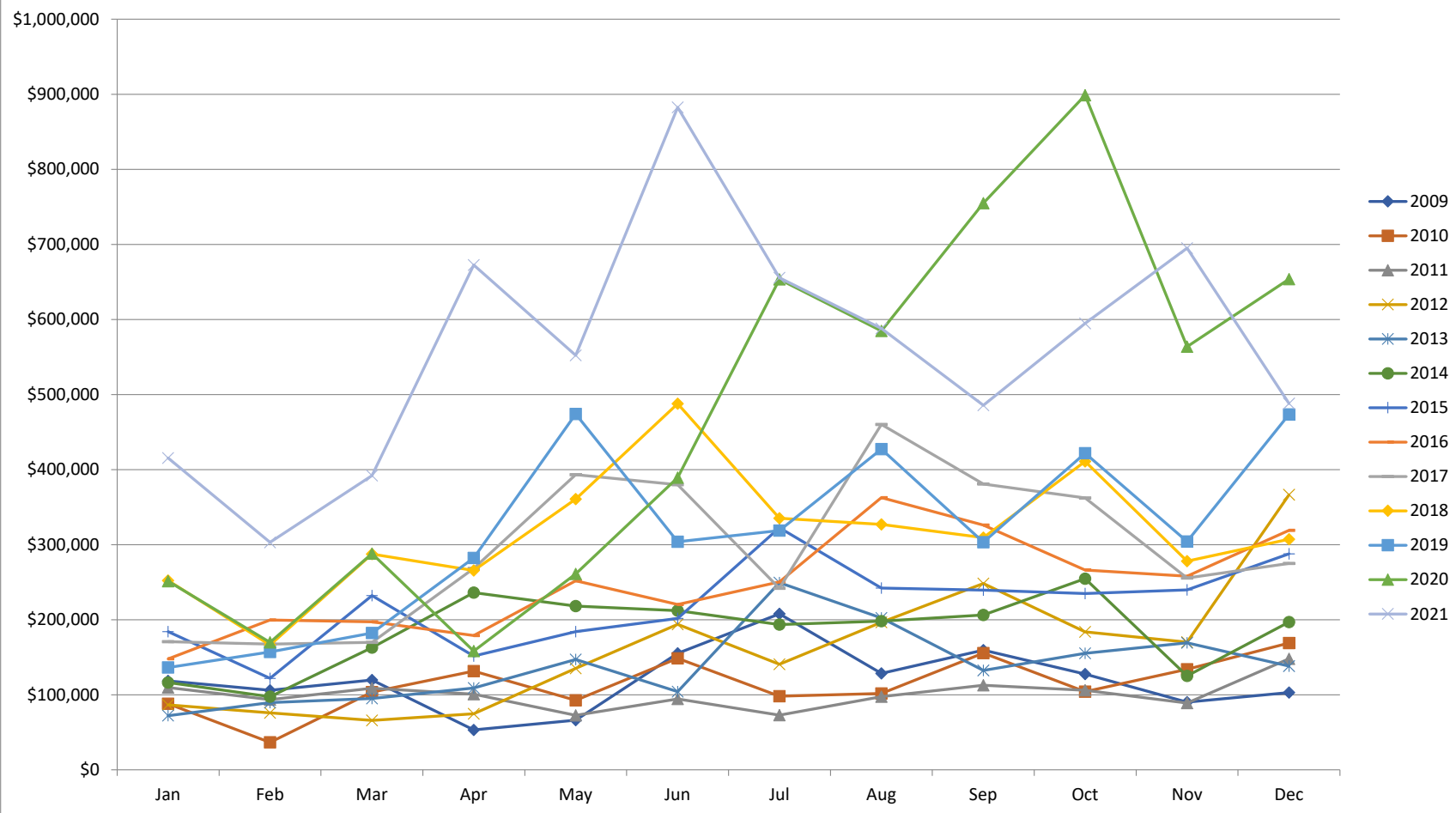
WSU Test Plot: Fall & Winter '21

- * Aeration & Compaction Study

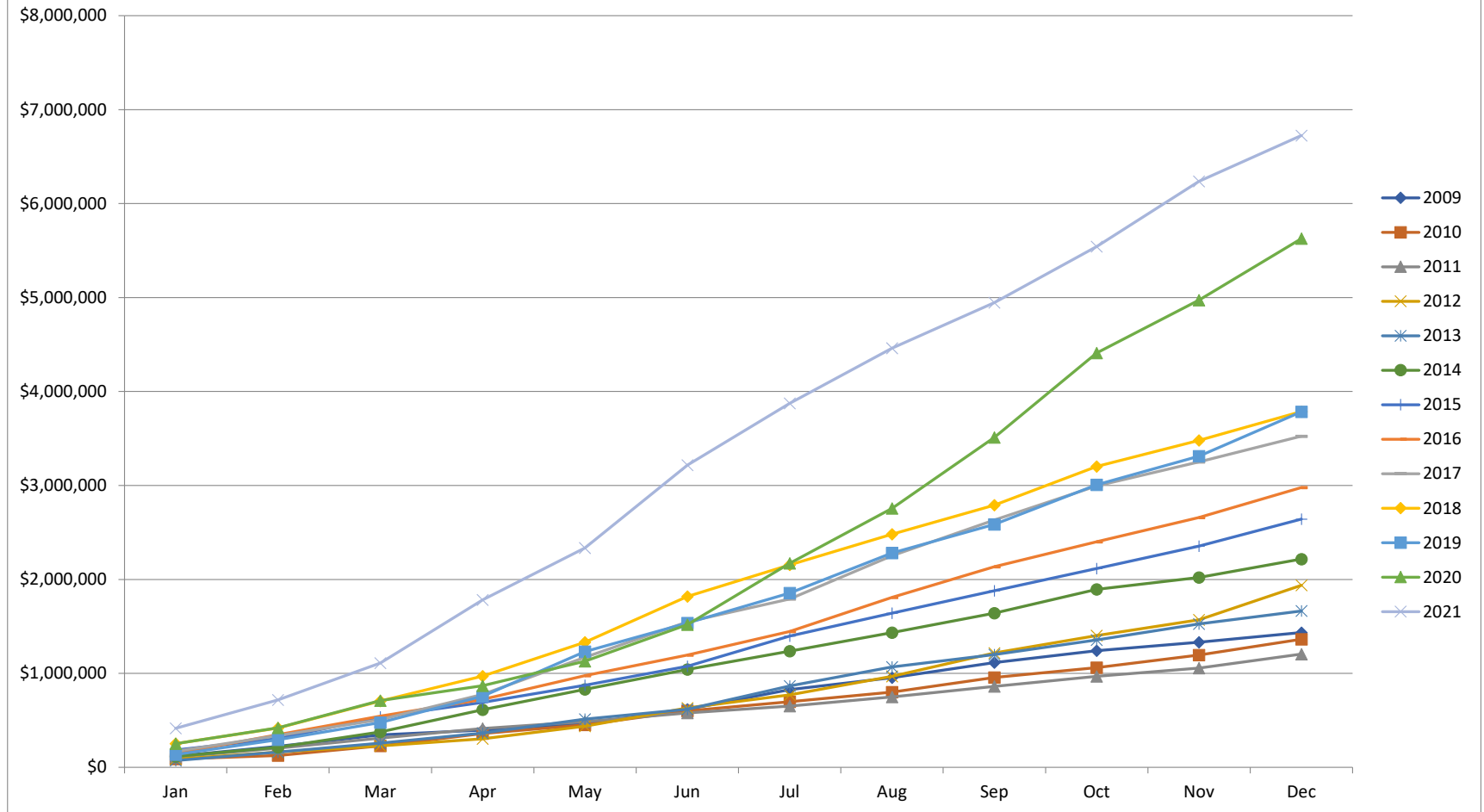


1021.00.318 - Revenues													
Acct_Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2009	\$118,372	\$105,880	\$119,718	\$53,207	\$66,214	\$155,142	\$207,754	\$128,348	\$159,492	\$127,423	\$90,056	\$103,071	\$1,434,678
2010	\$88,143	\$36,539	\$103,506	\$131,590	\$92,665	\$148,524	\$97,972	\$101,730	\$155,569	\$104,191	\$134,046	\$168,904	\$1,363,380
2011	\$109,729	\$93,636	\$108,558	\$100,689	\$72,611	\$94,346	\$72,907	\$97,424	\$112,529	\$105,975	\$88,901	\$147,914	\$1,205,218
2012	\$86,547	\$75,746	\$65,834	\$74,531	\$135,260	\$193,882	\$140,610	\$196,444	\$248,152	\$183,896	\$170,092	\$366,337	\$1,937,333
2013	\$72,106	\$89,629	\$94,943	\$109,020	\$146,974	\$104,286	\$249,312	\$202,351	\$132,516	\$155,258	\$169,306	\$138,279	\$1,663,979
2014	\$116,307	\$97,403	\$162,759	\$236,076	\$218,046	\$211,937	\$193,491	\$197,924	\$206,334	\$254,695	\$125,044	\$196,812	\$2,216,829
2015	\$184,186	\$121,920	\$232,019	\$151,641	\$184,037	\$201,867	\$322,494	\$242,119	\$239,381	\$234,885	\$239,857	\$287,602	\$2,642,008
2016	\$147,780	\$199,709	\$197,208	\$178,799	\$251,916	\$220,177	\$250,453	\$362,646	\$326,094	\$266,216	\$258,039	\$319,005	\$2,978,044
2017	\$170,789	\$167,494	\$169,775	\$268,280	\$393,220	\$379,832	\$241,755	\$460,110	\$380,894	\$362,103	\$255,636	\$274,865	\$3,524,752
2018	\$252,155	\$166,287	\$287,448	\$265,414	\$360,538	\$487,738	\$335,172	\$326,847	\$309,460	\$410,876	\$277,932	\$307,045	\$3,786,910
2019	\$136,263	\$156,907	\$182,195	\$282,295	\$474,060	\$303,744	\$318,828	\$427,381	\$303,198	\$421,696	\$304,131	\$473,533	\$3,784,232
2020	\$251,391	\$169,933	\$288,018	\$158,176	\$260,943	\$389,402	\$653,337	\$584,765	\$755,057	\$898,677	\$563,691	\$653,695	\$5,627,084
2021	\$415,281	\$303,073	\$391,898	\$672,670	\$552,318	\$882,523	\$655,661	\$588,043	\$485,643	\$594,848	\$694,893	\$488,162	\$6,725,012
Budget 2021	\$5,940,000												
2009	8.25%	7.38%	8.34%	3.71%	4.62%	10.81%	14.48%	8.95%	11.12%	8.88%	6.28%	7.18%	
2010	6.47%	2.68%	7.59%	9.65%	6.80%	10.89%	7.19%	7.46%	11.41%	7.64%	9.83%	12.39%	
2011	9.10%	7.77%	9.01%	8.35%	6.02%	7.83%	6.05%	8.08%	9.34%	8.79%	7.38%	12.27%	
2012	4.47%	3.91%	3.40%	3.85%	6.98%	10.01%	7.26%	10.14%	12.81%	9.49%	8.78%	18.91%	
2013	4.33%	5.39%	5.71%	6.55%	8.83%	6.27%	14.98%	12.16%	7.96%	9.33%	10.17%	8.31%	
2014	5.25%	4.39%	7.34%	10.65%	9.84%	9.56%	8.73%	8.93%	9.31%	11.49%	5.64%	8.88%	
2015	6.97%	4.61%	8.78%	5.74%	6.97%	7.64%	12.21%	9.16%	9.06%	8.89%	9.08%	10.89%	
2016	4.96%	6.71%	6.62%	6.00%	8.46%	7.39%	8.41%	12.18%	10.95%	8.94%	8.66%	10.71%	
2017	4.85%	4.75%	4.82%	7.61%	11.16%	10.78%	6.86%	13.05%	10.81%	10.27%	7.25%	7.80%	
2018	6.66%	4.39%	7.59%	7.01%	9.52%	12.88%	8.85%	8.63%	8.17%	10.85%	7.34%	8.11%	
2019	3.60%	4.15%	4.81%	7.46%	12.53%	8.03%	8.43%	11.29%	8.01%	11.14%	8.04%	12.51%	
2020	4.47%	3.02%	5.12%	2.81%	4.64%	6.92%	11.61%	10.39%	13.42%	15.97%	10.02%	11.62%	
2021	6.99%	5.10%	6.60%	11.32%	9.30%	14.86%	11.04%	9.90%	8.18%	10.01%	11.70%	8.22%	
Cumulative	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2009	\$118,372	\$224,252	\$343,970	\$397,177	\$463,391	\$618,534	\$826,288	\$954,636	\$1,114,128	\$1,241,550	\$1,331,607	\$1,434,678	
2010	\$88,143	\$124,682	\$228,188	\$359,778	\$452,443	\$600,967	\$698,939	\$800,669	\$956,238	\$1,060,429	\$1,194,476	\$1,363,380	
2011	\$109,729	\$203,365	\$311,923	\$412,613	\$485,224	\$579,570	\$652,476	\$749,900	\$862,429	\$968,404	\$1,057,304	\$1,205,218	
2012	\$86,547	\$162,293	\$228,127	\$302,659	\$437,919	\$631,801	\$772,411	\$968,855	\$1,217,008	\$1,400,904	\$1,570,995	\$1,937,333	
2013	\$72,106	\$161,734	\$256,678	\$365,698	\$512,672	\$616,957	\$866,269	\$1,068,620	\$1,201,136	\$1,356,394	\$1,525,700	\$1,663,979	
2014	\$116,307	\$213,711	\$376,470	\$612,546	\$830,592	\$1,042,530	\$1,236,020	\$1,433,945	\$1,640,278	\$1,894,973	\$2,020,017	\$2,216,829	
2015	\$184,186	\$306,105	\$538,125	\$689,766	\$873,803	\$1,075,669	\$1,398,164	\$1,640,283	\$1,879,664	\$2,114,549	\$2,354,406	\$2,642,008	
2016	\$147,780	\$347,489	\$544,696	\$723,496	\$975,412	\$1,195,589	\$1,446,043	\$1,808,689	\$2,134,784	\$2,401,000	\$2,659,039	\$2,978,044	
2017	\$170,789	\$338,283	\$508,057	\$776,338	\$1,169,558	\$1,549,390	\$1,791,144	\$2,251,254	\$2,632,147	\$2,994,251	\$3,249,887	\$3,524,752	
2018	\$252,155	\$418,441	\$705,890	\$971,304	\$1,331,842	\$1,819,580	\$2,154,751	\$2,481,598	\$2,791,057	\$3,201,933	\$3,479,865	\$3,786,910	
2019	\$136,263	\$293,170	\$475,365	\$757,660	\$1,231,720	\$1,535,464	\$1,854,293	\$2,281,674	\$2,584,872	\$3,006,568	\$3,310,699	\$3,784,232	
2020	\$251,391	\$421,324	\$709,342	\$867,518	\$1,128,461	\$1,517,863	\$2,171,200	\$2,755,964	\$3,511,021	\$4,409,698	\$4,973,389	\$5,627,084	
2021	\$415,281	\$718,353	\$1,110,251	\$1,782,921	\$2,335,239	\$3,217,761	\$3,873,422	\$4,461,465	\$4,947,109	\$5,541,957	\$6,236,850	\$6,725,012	
Cumulative %													
2009	8.25%	15.63%	23.98%	27.68%	32.30%	43.11%	57.59%	66.54%	77.66%	86.54%	92.82%	100.00%	
2010	6.47%	9.15%	16.74%	26.39%	33.19%	44.08%	51.27%	58.73%	70.14%	77.78%	87.61%	100.00%	
2011	9.10%	16.87%	25.88%	34.24%	40.26%	48.09%	54.14%	62.22%	71.56%	80.35%	87.73%	100.00%	
2012	4.47%	8.38%	11.78%	15.62%	22.60%	32.61%	39.87%	50.01%	62.82%	72.31%	81.09%	100.00%	
2013	4.33%	9.72%	15.43%	21.98%	30.81%	37.08%	52.06%	64.22%	72.18%	81.52%	91.69%	100.00%	
2014	5.25%	9.64%	16.98%	27.63%	37.47%	47.03%	55.76%	64.68%	73.99%	85.48%	91.12%	100.00%	
2015	6.97%	11.59%	20.37%	26.11%	33.07%	40.71%	52.92%	62.08%	71.15%	80.04%	89.11%	100.00%	
2016	4.96%	11.67%	18.29%	24.29%	32.75%	40.15%	48.56%	60.73%	71.68%	80.62%	89.29%	100.00%	
2017	4.85%	9.60%	14.41%	22.03%	33.18%	43.96%	50.82%	63.87%	74.68%	84.95%	92.20%	100.00%	
2018	6.66%	11.05%	18.64%	25.65%	35.17%	48.05%	56.90%	65.53%	73.70%	84.55%	91.89%	100.00%	
2019	3.60%	7.75%	12.56%	20.02%	32.55%	40.58%	49.00%	60.29%	68.31%	79.45%	87.49%	100.00%	
2020	4.47%	7.49%	12.61%	15.42%	20.05%	26.97%	38.58%	48.98%	62.40%	78.37%	88.38%	100.00%	
2021	6.99%	12.09%	18.69%	30.02%	39.31%	54.17%	65.21%	75.11%	83.28%	93.30%	105.00%	113.22%	
Avg % Recvd	5.78%	10.71%	17.30%	23.92%	31.95%	41.03%	50.62%	60.66%	70.85%	81.00%	89.20%	100.00%	
Projections													
Min	\$4,561,270	\$4,257,234	\$4,289,818	\$5,207,811	\$5,800,357	\$6,691,353	\$6,725,394	\$6,704,930	\$6,370,460	\$6,404,026	\$6,719,602	\$6,725,012	
Max	\$11,532,989	\$9,594,115	\$9,428,613	\$11,564,765	\$11,644,693	\$11,929,018	\$10,038,723	\$9,109,349	\$7,928,689	\$7,664,061	\$7,691,207	\$6,725,012	
Average	\$7,183,374	\$6,707,159	\$6,415,875	\$7,453,313	\$7,308,901	\$7,841,589	\$7,651,688	\$7,355,139	\$6,982,040	\$6,842,254	\$6,991,836	\$6,725,012	
Budget Amt	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	\$5,940,000	
YE Budget Proj(%)	120.93%	112.92%	108.01%	125.48%	123.05%	132.01%	128.82%	123.82%	117.54%	115.19%	117.71%	113.22%	

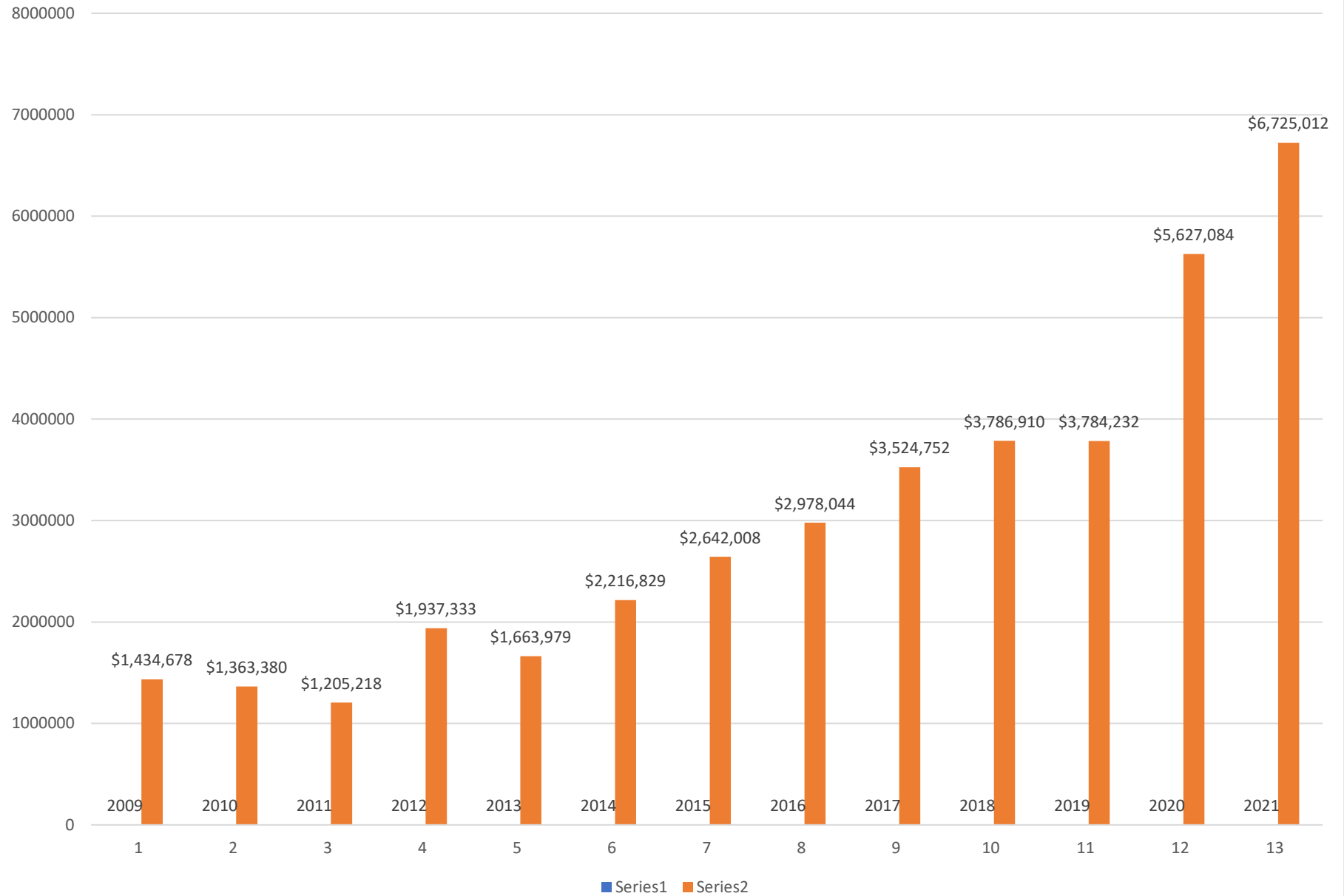
REET by Month



REET by Year



REET by Year Column



	A	B	C	D	E	F	G	H
1	2021	REET Reported Revenue Detail	Gross before 1% collection fee	Post to 91.5020		YTD	Prev yr to date	
2							2020	YTD diff
3	Jan-21	415,280.50	419,475.25	4,194.75	415,280.50	419,475.25	253,930.49	165,544.76
4	Feb-21	303,072.52	306,133.86	3,061.34	303,072.52	725,609.11	421,324.19	304,284.92
5	Mar-21	391,897.00	395,855.56	3,958.56	391,897.00	1,121,464.67	709,342.41	412,122.26
6	Apr-21	672,670.09	679,464.74	6,794.65	672,670.09	1,800,929.40	876,281.03	924,648.37
7	May-21	552,318.19	557,897.16	5,578.97	552,318.19	2,358,826.57	1,139,859.83	1,218,966.74
8	Jun-21	882,523.54	891,437.92	8,914.38	882,523.54	3,250,264.48	1,533,194.84	1,717,069.64
9	Jul-21	655,660.85	662,283.69	6,622.84	655,660.85	3,912,548.17	2,149,702.73	1,762,845.44
10	Aug-21	588,043.14	593,982.97	5,939.83	588,043.14	4,506,531.14	2,728,404.36	1,778,126.78
11	Sep-21	485,643.24	490,548.73	4,905.49	485,643.24	4,997,079.87	3,475,910.79	1,521,169.08
12	Oct-21	594,848.04	600,856.61	6,008.57	594,848.04	5,597,936.47	4,365,601.02	1,232,335.45
13	Nov-21	694,892.85	701,911.97	7,019.12	694,892.85	6,299,848.44	4,923,655.11	1,376,193.33
14	Dec-21	488,162.25	493,093.18	4,930.93	488,162.25	6,792,941.63	5,570,813.16	1,222,128.47
15		6,725,012.21	6,792,941.63	67,929.42	6,725,012.21	Running Total		
16								
17								
18			avg/mo 12 mos	est for 12 months				
19			566,078.47	6,792,942				
20								
21				6,000,000	2021 Budget	(amended)		



Contributed photo/Brooke Sullivan BMEE students getting ready for field work.

Immersive learning supports undergraduate research in watershed and estuarine ecology

- Tue Jan 11th, 2022 1:30am sanjuanjournal.com
- [LIFE](#)

by Dr. Wendel Raymond

and Dr. Brooke K. Sullivan

Friday Harbor Laboratories

The UW False Bay preserve has been an important site for FHL field trips and research efforts for decades, but with few attempts to link these efforts or create a long-term database as exists for other university-controlled sites.

Growing local interest in the bay and its watershed inspired FHL Director Megan Dethier to offer a new research apprenticeship to use the bay and its associated watershed as a classroom to teach research methods and estuarine ecology. Affectionately termed “Be-MEE” (Biodiversity and Monitoring of Estuarine Ecology – BMEE), the aim of the apprenticeship was to expose students to a wide range of methods available for place-based estuarine research including biological, hydrological and geochemical sampling needed to investigate ecological conditions across a variety of disciplines and scales.

We first offered this apprenticeship last quarter (Autumn, 2021) to a diverse group of 12 students (Figure 1). Over 10 weeks, we progressed through exploration of ecological theory and practice, numerous trips along the length of the watershed, and hands-on group and individual field studies and analyses relevant to the Bay and/or its contributing drainage basins.

False Bay is situated on the southwest side of San Juan Island and is characterized by a semi-constricted inlet and large tidally-influenced sand flat which opens out into eelgrass meadows, a kelp forest and Haro Strait (Figure 2). The bay is part of the Labs’ system of biological preserves, which conserve over 1600 acres of iconic and diverse marine and coastal habitats. The False Bay Preserve property hosts around 300 acres of tidelands and ~25 acres of adjacent upland property. The estuary

and its associated drainage basins have been the focus of historic biological studies including several entire PhD dissertations.

False Bay Creek drains the largest watershed on the island and flows through the popular San Juan County Land Bank Lake Zylstra Preserve. Freshwater from False Bay Creek and several smaller drainages enter the preserve after passing through diverse bedrock, forest, lake, wetland, agricultural and estuarine landscapes, bringing flows of sediment, nutrients and biota to False Bay. The watershed is also a priority of current preservation and habitat restoration efforts by a consortium of County, State, and local organizations seeking to improve water quality and conditions for fishes, including endangered Coho salmon.

False Bay has long been known locally as the beach with the “stinkin’ seaweed” which piles up near the road and at the mouth of False Bay Creek (Figure 2). While unpleasant, this super abundance of the green algae *Ulva* spp. is a unique feature of the bay and likely a major driver for the local ecological community. One of the foci for ongoing studies is trying to understand to what extent this “green tide” is natural, or if it is influenced by nutrients entering the bay from the uplands. We started sampling nutrients, especially nitrogen, in various parts of the watershed and the bay last spring, and will continue this sampling for at least one whole year. We hope that a future Tide Bite can report some answers to the “why so much *Ulva*?” question.

A major inspiration for the direction and tone of the BMEE apprenticeship is centered on our understanding of the interconnectedness of organisms, communities, ecosystems, and the abiotic environment. False Bay and its watersheds are ideal ‘classrooms’ for learning about estuarine and stream ecology and identifying key relationships between terrestrial and marine ecosystems. The connections among them include material, energy and trophic flows, sediments, water, minerals, nutrients, plants, microbes and other biota that define global ecosystems. Geologic, hydrologic, chemical and biotic gradients created opportunities for ecological investigations that were of interest to individual students. The goal of the apprenticeship is not only for students to gain research skills, but to contribute their own pieces to an increased understanding of the False Bay ecosystem. A systems-level understanding is needed to effectively manage and restore terrestrial and marine systems. Student work helps bring clarity to the past, present and future of this unique system while training the next generation of ecologists to understand complex problems. In the process, they find pathways to developing a career in ecological research.

‘Scientific research’ describes a wide range of disciplines and collaborations; potential opportunities for student research in False Bay and its watershed are truly endless (Figure 3). This year, our inaugural group of students completed 12 independent research projects. We hope to use these to start building long-term, open-source datasets on FHL’s preserves. The projects this year covered highly diverse topics and a wide range of scales:

- Quantifying False Bay Creek water flow
- False Bay Creek’s influence on sediment grain size in the Bay
- Biodiversity of zooplankton in False Bay and Friday Harbor

- Ulva growth in False Bay, San Juan Island, Washington
- Remote sensing demonstrates periodic fluctuations in eelgrass meadow cover of False Bay
- Diversity of fungal endophytes in False Bay eelgrass
- Biodiversity variation in the eelgrass patches of False Bay
- An estimate of ghost shrimp population characteristics in False Bay
- The role of habitat structure on the abundance and size distribution of the shore crab, *Hemigrapsus oregonensis*, in False Bay
- Sculpin size and abundance as a function of tidepool conditions in False Bay
- Measuring differences in clam populations between two stream outflow areas in False Bay
- Species assemblage of top-down predators across eelgrass and sandflat habitat at False Bay

Together, we have learned so much and are grateful for the chance to add to the past knowledge of this bay and its watershed and begin long-term sampling. We hope to build on this work and investigate other aspects of the False Bay watershed for years to come. And as always, we are grateful for the support of donors who enable students from many different backgrounds to participate in these amazing learning experiences.

Dr. Wendel Raymond is a Nearshore Ecology Research Scientist and co-instructor of the Biodiversity and Monitoring of Estuarine Ecology (BMEE) Research Apprenticeship. Wendel first came to FHL as an REU in 2011 and has since completed his PhD at University of Alaska Fairbanks. In addition to developing and teaching BMEE, Wendel is working on multiple ecological research projects in the region.

Dr. Brooke K. Sullivan is an FHL Faculty Teaching Fellow from the Department of Landscape Architecture and co-instructor in BMEE. Ze is a coastal ecologist focused on large-scale restoration of marine and coastal vegetation communities. In addition, Brooke is focused on improving the life and learning of students, faculty and staff in higher education.



Contributed photo/Washington Dept of Ecology Aerial photo of False Bay.