



Land Stewardship Grants

Year 1 Reports
2020-23 Funding Cycle

Introduction

In 2008, the Habitat Conservation Trust Foundation (HCTF) was awarded a \$9M endowment contribution from the Province of British Columbia to fund operations and maintenance activities on Conservation Lands. \$3M of the endowment was allocated for activities on private lands managed by non-profit organizations. The first intake of this program occurred in late 2016 and 12 grants were awarded to be used from April 2017 to March 2020. The second intake for this program occurred in 2019 and 13 grants were awarded for 2020-2023. More information about this grant program is available [HERE](#). This document provides copies of all reports submitted for the 2020-21 fiscal year (Year 1 of 3). The table below lists all reports included plus the total amount spent to date for each project (Year 1). Note that the detailed financial reporting is removed for confidentiality purposes. If you have any questions about the Land Stewardship Grant program, please contact Barb von Sacken, Project Coordinator at 250-940-3013 or bvonsacken@hctf.ca.

Project #	Project Name	Organization	Amount Spent to Date (Year 1 of 3)
1-647	Martha's Place	Nanaimo Area Land Trust	\$6,324
1-651	Matson Conservation Area	Habitat Acquisition Trust	\$4,166
1-733	Central Denman Conservation Complex	Denman Conservancy Association	\$12,347
1-734	Millard Learning Centre	Galiano Conservancy Association	\$10,122
1-735	Chemainus Estuary	Q'ul-Ihanumtsun Aquatic Resources Society (QARS)	no expenditures
2-673	Rogers Road Properties	Savary Island Land Trust	\$4,232
2-674	Savary Island Road	Savary Island Land Trust	\$4,365
2-675	Vancouver Boulevard	Savary Island Land Trust	\$3,709
2-676	Frenchies Island	Ducks Unlimited Canada	\$7,700
3-425	Turtle Valley Farm/Toad Hollow Invasive Plant Management and Rehabilitation	The Nature Conservancy of Canada	\$22,526
4-551	Fort Shepherd Conservancy Area	The Land Conservancy of BC	no expenditures
4-606	Morrissey Meadows	The Nature Conservancy of Canada	\$1,997
8-457	R.E. Taylor Conservation Property	Southern Interior Land Trust (SILT)	\$7,894
			\$85,382



1-647

Martha's Place



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 1-647

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Martha's Place

Project Leader Name: Paul Chapman

Name of Organization: Nanaimo & Area Land Trust

Date of Report: April 1st, 2021

Author of Report (if different than Project Leader):

Name of Organization:

Contact Information:

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

Removal or control of priority invasive plant species English ivy, English holly and Himalayan blackberries and the creation of a baseline inventory report documenting ecosystems and biodiversity on the property as directed by the property management plan.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

The outreach opportunities are normally limited on this property as it is the main residence of the onsite care takers. In 2020, COVID 19, health authority directives and organizational protocol prevented any outreach activities from occurring.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

NA

Media Coverage: Provide a list of any articles or media coverage during the year.

NA

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description: holly root removed.jpg The image is of a large holly root removed during control of invasive species.

Photo 2 File name and Photo Description: invasives in a bin.jpg The image is of a full haul-away bin with holly and other invasive plants.

Photo 3 File name and Photo Description: Kelsey survey.jpg The image is of Kelsey Cramer beside a large cedar tree while carrying out field work for the baseline inventory report.

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

NA

Provide any other information you wish to share with HCTF.

For awhile it seemed as if this and other work NALT carries out would not be able to be completed due to COVID 19. Thanks to a robust COVID-19 protocol and strong practices by the contractor we have been able to complete year-1 activities.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature

A handwritten signature in black ink, appearing to read "Paul Chapman".

Date

April 1st 2021

Print Name

Paul Chapman

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



Figure 1 Invasives in the Bin



Figure 2 Holly Root Removed



Land Stewardship Grant Report Year 1 of 2020-23 Cycle

Please read the Year 1 Reporting Instructions before completing this form.

From Application					Progress Year 1		
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description	
Martha's Place	To identify and locate invasive species and recommend a plan for removal and control	Implement a program for invasive species removal from forested area of property	Control and/or removal of priority invasive species including English ivy, English holly andHimalayam blackberries.	Primary removal of priority invasive plant species (2020)	Yes	Removal of priority invasive plants	
				Maintenance of invasive plant species removal/control (2021)			
				Maintenance of invasive plant species removal/control (2022)			
	To steward the land, to protect, conserve and enhance its natural values; to protect and enhance, where applicable, natural ecological processes; to ensure that permitted land uses will not significantly impair the natural condition of the land or inhibit natural ecological processes within natural areas of the land.	Baseline Inventory Study to identify plants and wildlife, map ecosystems and document ecological values.	Completed Baseline Inventory	Produce Baseline Inventory Study (2020)	Yes	Completion of Baseline Inventory	
	Project # 1-647						



1-651

Matson Conservation Area



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 1-651

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Matson Conservation Area

Project Leader Name: Wendy Tyrrell

Name of Organization: Habitat Acquisition Trust

Date of Report: April 14, 2021

Author of Report (if different than Project Leader):

Name of Organization: Habitat Acquisition Trust

Contact Information: Wendy Tyrrell, Habitat Management Coordinator

wendy@hat.bc.ca

250-886-9826 (Mobile)

HAT Office: 250-995-2428

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

With the onset of the pandemic, Habitat Acquisition Trust (HAT) staff worked diligently in April and May 2020 to create COVID-19 Protocols and Procedures to keep staff and volunteers safe. HAT's project activities were greatly impacted by the fallout of COVID-19, affecting our ability to carry out actions on the ground and in the community, and directly affecting staff capacity. We had to cancel most of our restoration and outreach events for 2020. Despite setbacks, we were able to accomplish some action items for most of our Objectives. The bulk of the planned work for the project will be carried out in Years 2 and 3. This is reflected in the expenditures report.

Objective 1: We hosted a successful restoration day in October at the Matson CA in partnership with the Greater Victoria Green Team, where 33 volunteers gathered to clear invasive plants in the Garrett Rd. restoration area. The feedback from volunteers was very positive and the resulting work exposed

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

the restoration area, prepping it for the next phase. In addition, the Matson Mattocks volunteer stewardship group logged over 480 hours of invasive species removal in 2020, notwithstanding 3 months off due to Provincial event cancellation orders. Coordination efforts were higher in 2020 due to COVID-19, and we are grateful to have additional support from HCTF to enable us to successfully accomplish these tasks! HAT staff met with the Mattocks formally on three occasions to discuss management priorities and address any outstanding concerns or changes in activities.

Objective 2: Seeding planned for Fall 2021 (Year 2)

Objective 3: Spring and Fall photographic (qualitative) monitoring was conducted (6 hours of volunteer labour). Results will be calculated at the end of Year 3. Due to the provincial restrictions and uncertainty of the pandemic, we did not request that the volunteers conduct the annual quantitative transect data collection in the Garry oak meadow for Spring 2020.

Objective 4: We made great progress in removing invasive plants in the Garrett Rd. restoration area. In addition, staff met with wetland expert Robin Annschild (Wetland Restoration Co.) for creek bed/project design consultation and restoration consultant Kristen Miskelly (Saanich Native Plants) for treatment and design consultation. These preliminary consultations allowed staff to advance planning and restoration design of the project.

Objective 5: Following HAT's first hosted Management Advisory Group (MAG) meeting in March 2020, in which the MAG members agreed to complete the Terms of Reference for the MAG and for each member to review and provide comments on the existing Management Plan for contribution to the update, HAT has drafted Terms of Reference and corresponded with MAG members. A 2nd MAG meeting was not held in 2020. A report was drafted, submitted to MAG members for comment and finalized with a clear set up action items laid out.

Objective 6: Interpretive signage planned for Summer 2022, giving us time to determine appropriate artist and graphic designers for content.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

The outreach activity that occurred for the Matson Conservation Area was for the October 25th restoration event. HAT sent out email invitations to over 400 volunteers from our database.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

The digital invitations acknowledged HCTF as the primary funding source for the event.

At the event, we had a poster recognizing HCTF as a funder for the event. During our introductions, we gladly announced our 3-year HCTF Stewardship grant success, showcase the Garrett Rd. restoration

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

project and demonstrate the crucial impact that the volunteers' work contributes to the restoration project.

Media Coverage: Provide a list of any articles or media coverage during the year.

Media coverage, acknowledging HCTF, is planned for Years 2 and 3 of the project.

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

Before & After MCA 2020. Image shows the Garrett Rd. restoration area, pre- and post-restoration event on Oct. 25, 2020 at the Matson Conservation Area (MCA).

Photo 2 File name and Photo Description:

Sponsor Thank You Poster MCA. Image is of the poster presented at the Oct. 25 2020 restoration event.

Photo 3 File name and Photo Description:

MCA Oct 25 Volunteers. Image shows three volunteers that participated in the COVID-19 habitat restoration day at MCA. Restoring the Garrett Rd. project area.

Photo 4 File name and Photo Description:

MCA new restrictive signage. Images shows Wendy Tyrrell (MCA Land Manager) and volunteers John Potter and Roger Hird.

Photo 5 File name and Photo Description:

Matson Conservation Area Spring 2020. Images shows wildflower display and oak background in previously restored area of the Matson Conservation Area.

Photo 6 File name and Photo Description:

MCA Oct. 25 Volunteers 2. Images shows volunteers cooperatively disposing of invasive plants in biomass bag.

Photo 7 File name and Photo Description:

COVID-STYLE Himalayan blackberry removal. Images shows 2 metre spacing and mask-wearing volunteers removing the invasive blackberry from the wetland area being restored.

Photo 8 File name and Photo Description:

Photopoint monitoring image MCA 2021. Image of photo-point taken in Spring 2021 of Matson Garry Oak Meadow.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Photo 9 File name and Photo Description:

Winter 2020_ MCA. Image showing the Garry Oak Meadow at the Matson Conservation Area in the wintertime with browsing deer.

Photo 10 & 11 File name and Photo Description:

Flushing water mains and Flushing water mains 2. Images showing the large volume of water from City of Victoria's water main flushing event this April 2021.

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

N/A

Provide any other information you wish to share with HCTF.


The Matson Conservation Area has experienced years of occupied encampments on the land. Being an urban and easily accessible location, it is not unusual to find two or more camps set up and find garbage and abandoned drug paraphernalia onsite. HAT has been diligently working on solutions to reduce the number of encampments. In 2020, we attempted to find a security guard company to patrol the site on a bi-weekly basis, but there are no security business that would patrol MCA, due to the lack of lighting and trails. We have been successful in reducing the numbers this year. This is attributed to a) installing new signage all along the borders that restrict entry and identify the land as Private, making it easier for police to intervene on HAT's behalf; b) the stewardship group has cleared a significant portion of the understory of invasive vegetation, making the site less dense and therefore, fewer places to hide; and c) the stewardship group is a constant presence in the understory and this is working to discourage anyone from setting up a camp. We are also observing an abundance of deer this Spring (2021). Typically, we have 3-4 deer on site, and currently we have at least 8. This is causing damage and diminishing spring wildflower success. Another new threat to the site, is we have discovered that the MCA receives a torrent of water into the site at the Garrett Rd. border when the City of Victoria flushes their water mains. The volume of water emptying into the site, causes erosions and splitting of the primary stream channel. We have included a photo of the event. This new information will be taken into account during habitat restoration planning and implementation.

6. SIGNATURE

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 14, 2021	Katie Blake, Executive Director

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



Figure 1 Winter 2020



Figure 2 MCA Oct 25, 2020 Volunteers



Figure 3 MCA Oct. 25, 2020 Volunteers 2

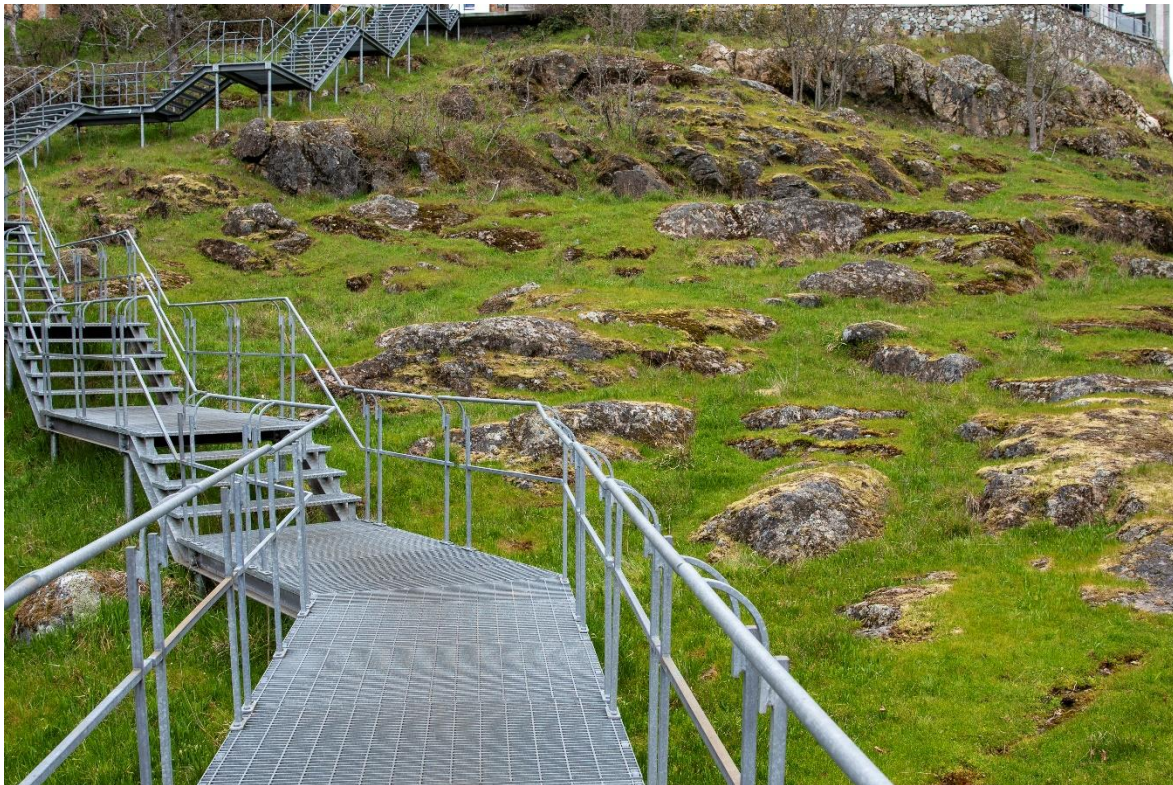


Figure 4 Photopoint monitoring image MCA 2021



Land Stewardship Grant Report Year 1 of 2020-23 Cycle

Please read the Year 1 Reporting Instructions before completing this form.

From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Matson Conservation Area	Enhance, restore and sustain the native Garry Oak associated ecosystems and the native wildlife that occurs in this Conservation Area	Remove invasive tree, shrub and grass species that threaten biodiversity and native plant germination and success.	1. Invasive species cover on Matson Conservation Area will be reduced by 25% over 3 years. 2. Through collaboration, Matson Mattocks will continue to volunteer restoration efforts weekly. 3. Creation of an Invasive Plant Management Strategy utilizing Best Management Practices and an integrative management approach. 4. Application of herbicide to manage specific Invasive Species	Hold at least two community-based restoration events (1 per year) targeting highest priority invasive plant species that threaten the site.	YES	A community-based invasive removal event in partnership with the Greater Victoria Green Team was held on Oct. 25, 2020. 33 Volunteers attended, respecting COVID-19 protocols and procedures. Removed 20m3 of English Ivy and Himalayan blackberry. Total of 115.5 volunteer hours worked. Bagged lunches were provided to each participant, along with refreshments, coffee and tea. HCTF was recognized through invitations, and with a poster at the event.
				Meet with the Matson Mattocks three times per year to establish priority management activities and review previous activities and achievements; attend occasional Matson Mattocks volunteer days	YES	HAT Habitat Mangement Coordinator Wendy Tyrrell met with the Matson Mattocks during 2020 multiple times. We had 3 planning meetings. Our intial meeting was a walk thorough the site and a prioritizing of management goals for the year. Provincial Health Orders and restrictions on gathering forced us to suspend stewardship activities for a few months. Once our protocols were in place, and PPE distributed, the Mattocks returned to Matson and continued stewardship activities - adding an extra day of volunteering, as it was most rewarding during these times of isolation.
				Work with contractor on herbicide application	No	Planned for Summer/Fall 2021.
		Install native trees, shrubs, grasses and forbs to enhance biodiversity, pollinator sources and prevent re-establishment of invasive plants.	1. Habitat diversity and abundance will be increased by 20% 2. Addition of native food, nesting and cover sources for wildlife, measured through surveys and monitoring.	Install at least 500 native plants in the meadow and Douglas fir understory in years 1 and 2	No	Planned for Fall 2021 and Fall 2022
				Disperse at least \$2000 of annual and perennial seeds suitable for the Garry Oak Meadow in years 1 and 2	No	Planned for Fall 2021 and Fall 2022
	Project #1-651	Monitor/manage progress and success using qualittitative and quantitative data collection methods and reporting results at the end of 3 years.	1. Utilizing a monitoring program, both quantitatively and qualitatively data collected will provide valuable information to gauge success over time. 2. In monitoring annually utilizing volunteer community members we can provide learning oportunites for the stewardship members. 3. Monitoring will provide data that can provide valuable information vital for implementing an adaptive management program.	Perform a species survey (over 2 seasons) to gather information for a baseline on species and abundance.	No	Pollinator surveys are planned for Fall 2021 and Spring 2022
				Monitor planting sites and meadow annually using photo-point surveys (qualitative) and collecting line-transect data (quantitative) in meadow and Douglas fir forest.	YES	Quantatative: Years 2020 and 2021 postponed due to COVID Qualitative: The Mattocks volunteers performed photo-point monitoring spring/fall 2020 and spring 2021.
				Write summary report depicting activities performed, successes and monitoring results.	No	Planned for Fall 2022
	Restore and enhance land near Garrett Place at public entrance of property	Create and enhance wildlife habitat at a disturbed site near the public entrance to the MCA	1. Creation of bird and wetland habitat; mitigation of pollutants and runoff from roadway 2. Enhancement of public access; decrease in site disturbance due to homeless encampments by opening site-lines and increasing foot-traffic	Clean up disturbed site at end of Garrett Place (removal of invasive species and debris) -- in-kind by Mann Construction	No	Planned for Summer 2021-Summer 2022
				Trail building through forested area	No	Planned for Fall 2022
				Wetland habitat creation at the site of natural drainage	YES	HAT staff held a preliminary on-site meeting with wetland expert Robin Annschild for creekbed and design consultation. Staff also held on-site discussions with restoration consultant Kristen Miskelley to solicit
	Successfully coordinate the newly established MCA collaborative group of partners (Management Advisory Group)	Coordinate and implement priority management activies	1. Management Advisory Group will meet 2x/year to coordinate implementation of the Management Plan and Restoration Plan for Matson Conservation Area.	Coordinate Management Advisory Group meetings 2x/year	YES	HAT coordinated and held the first MAG meeting on March 10, 2020. All stakeholders were present and the group was brought up to date with management and activity on Matson CA. MAG members have agreed on an objective to complete the Terms of Reference for the MAG and for each member to review and provide comments on the existing Management Plan for contribution to the update. The staff time reported herein accounts for HAT's actions following the meeting, including drafting Terms of Reference for the MAG, a follow up report for initial meeting, and corresponding with MAG members. Due to the complications of COVID-19, a 2nd MAG meeting was not held in 2020.
				Provide Annual Summary Reports to Management Advisory Group	YES	A report outlining meeting results, goals and action items and was distributed to the MAG members.
	Establish public outreach and educational opportunities	Encourage community support and engagement in Conservation Area	1. Interpretive signs will be installed to encourage public learning about the ecology and history of the site	Design, print and install interpretive signage onsite.	NO	Planning for Summer 2022.

1-733

Central Denman Conservation Complex



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 1-733

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name:	Central Denman Conservation Complex
Project Leader Name:	Erika Bland
Name of Organization:	Denman Conservancy Association
Date of Report:	April 15, 2021

Author of Report (if different than Project Leader):

Name of Organization:

Contact Information:

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

Wetland Habitat Stewardship: Stewardship work for the endangered Taylor's Checkerspot Butterfly (TCB) continued with vegetation control (small tree removal) and invasive species removal, and revegetation with native species, across 6 hectares of critical TCB habitat.

Native host species for TCB were planted at the Butterfly Reserve by youth participants at a Spring Break Pollinator Camp in March 2021 using seeds obtained through Wildlife Preservation Canada Wild Seed Grant.

10 Volunteer work bees for invasive species removal were held in the fall of 2020. Removal of invasive plant species was carried out across the Conservation Complex across approximately 80 hectares of habitat.

A community-wide early detection monitoring program for invasive American Bullfrogs involving 43 volunteer monitors was initiated in the Central Denman Conservation Complex and beyond. Initial acoustic monitoring was carried out at 28 perennial wetland sites on Denman Island. Water quality parameters and water level measurements were also measured at 4 sites in the Settlement Lands, to

help establish baseline water quality data for the upper Beadnell watershed as part of DCA's wetland stewardship program.

Management Actions for Protection of Sensitive Habitat: Daily Fire Prevention monitoring was carried out by neighbour volunteers daily at Winter Wren Wood and surrounding environs during the period of high summer recreational use. Articles were sent to local papers about the dangers of smoking in conservation areas, and 10 metal receptacles were placed at all trailheads within the Conservation Complex to discourage smoking within these areas. The Denman Island Volunteer Fire Department collaborated with DCA on additional signage to raise awareness of the risk of forest fire from discarded cigarette butts. Boundary marker signs for the Conservation Complex properties were designed and fabricated, and posts purchased for installation with the help of a retired surveyor scheduled for spring 2021. Property management signage including 'No-Hunting' signs and trail signage were fabricated and will be installed in spring 2021. Species ID signs in need of repair were removed from Winter Wren Wood to be refurbished in Year 2.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

A campaign relating to the American Bullfrog Volunteer Monitoring Program was carried out through local news media and the DCA website and Facebook pages. 43 people were involved in surveys and information articles were sent to 500+ island households. A webpage with resources was created and visited by volunteer monitors for training purposes. Community members relayed monitoring observations to the project coordinator via email. Participants expressed that they really enjoyed the opportunity to help with this effort.

With the support of Wildlife Preservation Canada, DCA carried out surveys for Taylor's Checkerspot Butterflies across 19 privately held properties on Denman including two properties within the Conservation Complex and created a short video about habitat needs for TCB which had hits from as far away as Ontario. We also reached out to students at the Denman Community School and their parents, as well as other supporters of the Denman Island Community Education Society and members of the TCB Species at Risk Regional Implementation Group, as part of our Spring Break Pollinators Camp. At the end of the 'butterflies' day, two young children were overheard chatting – one excitedly asked the other: "I wonder what we're going to learn tomorrow!?" Truly, that is what successful stewardship outreach looks like, to us.

Fire prevention outreach was carried out through articles in local publications (Islands Grapevine and The Flagstone) and 8 community members helped with daily fire prevention monitoring walks in the Conservation Complex.

For the 10 Invasive Species work bees carried out, associated outreach included posters in Denman Island businesses and community centres, articles in local publications, social media, and the Denman Newsletter, as well as word of mouth announcements at local events and meetings. 26 people came out to help at the work bees, many of them coming to multiple dates. People told us they were grateful for



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

the opportunity to get out and work together and support Conservancy work amidst the overarching isolation of the pandemic.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Record of communications about this project:

Job Ads for invasive species removal labourers and work bee coordinator posted on Facebook June 22, 2020 – tagged HCTF

DCA Newsletter article July 2020 – acknowledgement of newly awarded HCTF LSG funds.

DCA Lands committee meeting HCTF project update July 14, 2020

DCA Board meeting HCTF project update July 20, 2020

DCA Flagstone article Sept 2020 – Bullfrogs on Denman Island

DCA Flagstone article Sept 2020 – Fire prevention

DCA Newsletter article Sept 2020 – Invasive species workers – HCTF acknowledged

Report to DCA Lands Committee Sept 2020 – HCTF verbal acknowledgement

Report to DCA Board of Directors Sept 2020 – HCTF verbal acknowledgement

Grapevine Article for Invasive Species Work Bees Sept 27 – Winter Wren Wood – Leticia Gardner

Poster – Invasive Species Work Bee – September 2020 – HCTF Logo

Poster – Invasive Species Work Bee – October 2020 – HCTF Logo

Poster – Invasive Species Work Bee – November 2020 – HCTF Logo

Work Bees Sept, Oct, Nov – HCTF Logo on orientation sheets

Final report on Invasive Species Work Bees, Leticia Gardner - November 2020 – HCTF acknowledgement

Reports to DCA Lands Committee Nov 10, 2020

Denman Island Natural Burial Cemetery Annual General Meeting (Jan 11, 2021 Zoom) – Report on Invasive Species Work Summer 2020 – HCTF verbal acknowledgement

Report to DCA Board of Directors January 2021 – HCTF verbal acknowledgement

DCA Newsletter to membership Feb 2021

DCA Annual Lands report February 2021 – HCTF acknowledgement

DCA Annual General Meeting February 2021 – HCTF verbal acknowledgement

Media Coverage: Provide a list of any articles or media coverage during the year.

DCA Webpage About American Bullfrog Monitoring Program – <https://www.denman-conservancy.org/denman-nature/bullfrogs/>

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

DCA Newsletter article July 2020 – <https://www.denman-conservancy.org/wp-content/uploads/2020/07/July-2020.pdf>

DCA Newsletter article Sept 2020 – Invasive species workers – <https://www.denman-conservancy.org/wp-content/uploads/2020/09/Newslettersept20.pdf>

DCA Newsletter article February 2021 – <https://www.denman-conservancy.org/wp-content/uploads/2021/02/feb21.pdf>

DCA Webpage about Taylor's Checkerspot Butterfly Habitat Stewardship - <https://www.denman-conservancy.org/denman-nature/tcb/>

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

1-733 Photo1-DCA-Invasive Hypericum control_Year 1.jpg

Landscaping contractor Chloe Woodruff using DCA's gas weedeater to cut a large patch of Invasive St. John's Wort at the DCA's Settlement Lands before solarization treatment, summer 2020.

Photo 2 File name and Photo Description:

1-733 Photo2-DCA-Invasive Holly control_Year 1.jpg

Example of two large *Ilex Aquifolium* full of berries cut by contractor Glen Kraushar, before and after treatment, in DCA's Winter Wren Wood, winter 2021.

Photo 3 File name and Photo Description:

1-733 Photo3-DCA-Work Bee Volunteers_Year 1.jpg

Two hard-working volunteers help to remove English Holly at a work bee in DCA's Central Park in fall 2020. (Apologies for the low photo resolution.)

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

No capital assets purchased.

Land Stewardship Grant 2020-23


YEAR 1 REPORT FORM

Provide any other information you wish to share with HCTF.

The Covid-19 pandemic has seriously limited Denman Conservancy's ability to carry out our regular fundraising activities over the past year. Our biennial Home and Garden Tour and annual book sale are the main sources of revenue for our organization, and neither event could be carried out in 2020 as planned. For this reason, we are particularly grateful for this funding from HCTF, which has allowed us to carry on with necessary stewardship activities, and continue to reach out to our community, despite significant limitations to our other areas of programming. Thank you!

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 15, 2021	Erika Bland

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent




Photo 1; Invasive Hypericum Control



Photo 2: Invasive Holly Control



Photo 3: Work Bee Volunteers

<div>  <div> <div>HABITAT</div> <div>CONSERVATION TRUST</div> <div>FOUNDATION</div> </div> </div> <div>Land Stewardship Grant Report Year 1 of 2020-23 Cycle</div>						
Please read the Year 1 Reporting Instructions before completing this form.						
From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Central Denman Conservation Complex	Maintain/increase populations of Species at Risk: Taylor's Checkerspot (SARA Endangered); Little brown bat (Endangered); Dun Skipper (BC Red List); Western Pondhawk (BC Blue List); N. Red-legged frog (BC Blue List); Olive-sided flycatcher (BC Blue List); C.Nighthawk (SARA Threatened)	Enhance habitat for Taylor's Checkerspot (TC) & other invertebrate pollinators by controlling ingrowing vegetation & increasing density of food & nectar plants for larvae & adult TCs and other species;	1000+ ingrowing trees (0-2m tall) are removed from Butterfly Reserve area, to retain sunny areas for native meadow species used as nectar & larval host plants for TC. 0.02ha Butterfly Garden produces seeds & forbs from 8+ TC host species, for translocation/seed collection used in Butterfly Reserve. Surplus plants/seeds distributed annually to 10 private landholders with critical TC habitat. Translocated plants show survival rate of min 50% after 1 year. Germination present at min 50% of seed distribution sites in Butterfly Reserve within 2 years.	DCA Land Manager & volunteers dig up 1000+ conifer trees <2m from Butterfly Reserve, retaining moist root masses & staging in fenced Butterfly garden for distribution to landholders with critical TC habitat (Y 1-3)	Yes	In October 2020 and March 2021 a total of 2000 small conifer seedlings were dug up from the Settlement Lands Butterfly Reserve by the DCA Land Manager, a hired contractor (Emma Scheunwater 15 hours labour), and 3 volunteers. 95% of the seedlings were transplanted into previously clear-cut areas of the Settlement Lands which will indirectly aid invasive species removal efforts by shading ingrowing Scotch broom and St.John's Wort plants. 5% of seedlings were potted up for distribution as an outreach tool for TC landowners
				Garden seeded with TC host spp by volunteers and youth. Seedlings translocated to 2ha Reserve habitat (Y2&3). Garden & purchased seed distributed to 0.4ha vernal wetland & adjacent habitat (Y 1-3).	Yes	Supported by a grant from Wildlife Preservation Canada, DCA purchased and distributed seeds of TC host species and distributed seed in fall 2020 and spring 2021 across the Butterfly Reserve and at a Spring Break camp focused on pollinators for Denman Elementary youth, some seeds were also planted by 25 students in the
				Follow-up monitoring /survival rate data collection annually in fall.	No	To be completed starting in fall 2021
	Maintain/increase populations of Species at Risk: Taylor's Checkerspot (SARA Endangered); Little brown bat (Endangered); Dun Skipper (BC Red List); Western Pondhawk (BC Blue List); N. Red-legged frog (BC Blue List); Olive-sided flycatcher (BC Blue List)	Augment invasive species removal efforts by revegetating treated areas with native plant species to create varied shade and reduce ingrowth of new Broom and other invasive plants.	The DCA Land Manager organizes 20 volunteers to seed native species of local provenance and representative of natural species diversity (8+ species) within areas treated for Scotch Broom removal. Germination of seeded species observed at a minimum of 50% of treated areas within 2 years.	DCA Land Manager and 20 volunteers collect seeds and berries from native forbs/shrubs of local provenance & distribute across 20ha where Scotch Broom control has taken place. (Y 1-3)	Yes	DCA Land Manager collected and distributed seeds of local provenance (pearly everlasting, self-heal, nootka rose, baldhip rose) across upland areas to east and west of Central Road, where Scotch broom control took place in spring/summer 2020.
				Follow-up monitoring /survival rate data collection annually in fall.	No	To be completed starting in fall 2021
	Maintain/increase populations of Species at Risk: Taylor's Checkerspot (SARA Endangered); Little brown bat (Endangered); Dun Skipper (BC Red List); Western Pondhawk (BC Blue List); N. Red-legged frog (BC Blue List); Olive-sided flycatcher (BC Blue List); C.Nighthawk (SARA Threatened)	Enhance wetland & upland habitats by restoring native plant diversity through manual removal of invasive species (Scotch broom, English Holly, Daphne, Laurel), Canada Thistle, Everlasting Pea, St.John's Wort, Reed Canarygrass, English Hawthorne).	Coordinator organizes 1800 volunteer hours + 240 paid hours to remove invasive plants from 30ha habitat throughout Conservation Complex (except Inner Island Nature Reserve). Treated areas are mapped and photographed. 100 English Holly plants >2m tall removed within the Complex, with focus on female plants producing berries. GPS locations of cut holly trees are marked, & follow-up treatments in Y2&3 to cut resprouting shoots. Completed work is documented with photographs & maps of treated areas to guide continual management efforts.	Carry out 10 volunteer work-bees each year + hire contractor for 80h per year to remove Invasive Scotch Broom, Canada Thistle, English Holly, Daphne Laurel and other species) across the Conservation Complex (Y 1-3).	Yes	10 volunteer work bees focused on removal of invasive plant species were completed involving a total of 26 volunteers, coordinated by Leticia Gardner (report available). 80 hours of invasive plant removal was completed at Settlement Lands, Central Park, and the Denman Island Natural Burial Cemetery by Erika Bland and Chloe Woodruff, focusing on Scotch Broom, St.John's Wort, Everlasting Pea, English Holly, and Canada Thistle (report available).
				Hire contractor to remove min. 100 large English Holly Plants, marking GPS locations of plants removed, focusing especially on plants with berries, using a chainsaw (Y 1).	Yes	Glen Kraushar was hired to remove large English holly plants across Central Park and Winter Wren Wood, using a chainsaw and reciprocating saw, and hand tools. Glen completed 120 hours of work and removed 305 instances of English Holly.
				DCA Land Manager & volunteer Land-Keepers use GPS locations to monitor cut Holly stumps & remove resprouting shoots (Y 2 & 3)	No	To be completed starting winter 2021-22
	Following positive ID of one American Bullfrog on Denman Island (2018), protect native wildlife diversity & habitat for Northern Red-legged frog (BC Blue List), other amphibians & breeding waterfowl. Prevent colonization of American Bullfrog into areas where it is currently unrecorded.	Initiate monitoring program for early detection of invasive American Bullfrogs (HCTF & HSP Funds - Application pending).	Volunteer working group is initiated to carry out bi-weekly monitoring for American Bullfrog in perennial Lake/wetland habitats within the Central Denman Island Conservation Complex. Trained working group personnel record monthly baseline water quality data (depth, pH, temperature, Dissolved Oxygen, Electrical Conductivity) using professional equipment within Chickadee-Beadnell watershed. 10 community leaders trained in water quality monitoring (HCTF) and identification and methods for Early Detection Rapid Response (EDRR) protocols for American Bullfrogs (HSP).	Early-detection monitoring (acoustic & eyeshine surveys) at perennial wetlands in the Complex (Pickles Marsh, Homestead Marsh, Chickadee Lake, Swale Marsh, Graveyard Marsh) weekly May-	Yes	Acoustic monitoring was completed
				Implement outreach in D.I. community, focusing on Early Detection and Rapid Response protocols for American bullfrogs including ID (visual, acoustic), habitat characteristics & native amphibian interactions (Y2)	Yes	Initial Outreach efforts were made - DCA Land Manager contacted provincial authorities on American bullfrogs for consultation on best approaches. Email correspondence with Stan Orchard, a professional experienced in bullfrog eradication, to come up with plan for community-based monitoring. Consultation with BC Parks and Comox Valley Regional District to ensure a coordinated effort for early detection monitoring across other areas of Denman Island outside the Central Denman Conservation Complex.
				Water quality parameters measured monthly for 3 years at 4 sites in Beadnell headwaters by trained DCA Landkeeper volunteers and Land Manager.	Yes	Training session for Volunteer Water Quality Monitors carried out. Due to covid limitations on gathering and sharing equipment, one volunteer agreed to do all the monitoring for the year. He carried out monitoring at 4 sites in the Settlement Lands (Beadnell Headwaters)
	Protect sensitive habitat from damage with management aids in areas of concern for wildlife & rare plant communities (migrating/nesting waterfowl; at-risk invertebrates & amphibians; old-growth Coastal Douglas-fir forest stands; sensitive bluff flora).	Clarify & mark conservation area boundaries, especially where land use changes occur due to private or other-agency landownership.	Install 30 boundary markers at property corners & along boundary lines, specifically focusing on sites where changes in land use / ownership / management objectives occur with adjacent neighbouring properties (see Inset Map showing proposed marker sites).	DCA Land Manager & retired professional surveyor volunteer locate key boundary points/property corners, in collaboration with neighbours including 8 private landholders, and the following agencies: Islands Trust Conservancy, BC Parks, & Denman Island Memorial Society (Y1)	Yes	Retired Professional Surveyor was contacted and dates for boundary marking are confirmed for May 2021.
				30 Boundary marker signs are fabricated & installed on painted metal T-posts at sites located by retired surveyor volunteer & DCA Land Manager (Y1)	Yes	Signs were fabricated and posts purchased, ready for installation after site visit with surveyor scheduled May 2021.
	Protect sensitive habitat from damage with management aids in areas of concern for wildlife & rare plant communities (migrating/nesting waterfowl; at-risk invertebrates & amphibians; old-growth Coastal Douglas-fir forest stands; sensitive bluff flora).	Install new/ repair degraded signage along trails at key locations where incursion into sensitive areas is anticipated by the public.	35+ signs are designed & installed at locations a) where visitor access passes through or near to areas of high ecological sensitivity or b) where information is needed for wayfinding/appropriate use of properties; and c) where signs have degraded through long-term use.	Replace or repair 15+ plywood management signs in Complex (degraded from long-term use) with durable aluminium or coated wood signs (Y2)	Yes	Replacement signs designed and fabricated.
				Work with artist to refurbish and re-install 20+ existing degraded plant ID signs (Winter Wren Wood): touch up paint & coat with permanent sealer (Y2)		Signs needing repair were removed in 2020 for refurbishment in 2021. Artist contacted for project and agreed to help.
				Install a sign at 'Overlook Trail' suggesting caution to protect sensitive bluff flora.	Yes	Sign installed indicating trail ends at steep cliffs.
	Protect sensitive habitat from damage with management aids in areas of concern for wildlife & rare plant communities (migrating/nesting waterfowl; at-risk invertebrates & amphibians; old-growth Coastal Douglas-fir forest stands; sensitive bluff flora).	Protect against wildfire by encouraging seasonally-appropriate access to Conservation Complex lands & providing means for safe disposal of flammable materials.	Volunteer coordinator organizes volunteer fire monitoring crew to carry out daily monitoring in high fire-risk areas throughout extreme fire hazard season (June-August). In collaboration with volunteer Fire Department, fireproof cigarette-butt receptacles & no-smoking signs are placed at 4 main property entrances in summer & maintained by fire monitoring crew.	Volunteer coordinator organizes fire monitoring crew for daily fire monitoring through fire season (Y1-3)	Yes	Volunteers carried out daily monitoring at high risk areas around Winter Wren Wood and Chickadee lake from June to September.
				Refurbish chain closure used to restrict vehicle access to Winter Wren Wood parking area during extreme fire season. New posts installed for chain supports (Y1)	No	To be completed summer 2021
				Metal receptacles & no-smoking signs are placed at all entrances to public trails in Conservation Complex (placed ~June, removed Septmeber) (Y1-3)	Yes	Trial receptacles were purchased, marked with no-smoking stickers, filled with sand, and placed at property entrances: Central Park (3); Winter Wren Wood (2); Settlement Lands (5). After evaluating for one year, it is deemed they are effective, so permanent receptacles to be purchased in Year 2



1-734

Millard Learning Centre



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 1-734

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Millard Learning Centre

Project Leader Name: Adam Huggins – Restoration Coordinator, GCA

Name of Organization: Galiano Conservancy Association

Date of Report: April 15, 2021

Author of Report (if different than Project Leader):

Name of Organization:

Contact Information:

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

In Year 1, significant progress was made on 5 out of the 6 goals, including: removal and management of target invasive species across the property; establishment, maintenance, and monitoring of deer exclosures; management and monitoring for established restoration projects; preliminary red-legged frog monitoring; development of interpretative materials; and trail construction. Notably, an initial restoration plan for the Chrystal Creek watershed was not only prepared and budgeted, but funding was also secured, allowing us to initiate restoration activities in the watershed in Year 1. Of the 3 phase restoration plan, we hope to complete phases 1 and 2 within the three-year Stewardship grant period.

While we did not begin to revise and update management plans for the property in Year 1, we are on track to begin this process in Year 2.

3. COMMUNICATIONS

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

Between June and October of 2020, we hosted tours, adult workshops, and youth / school group programs in the Nuts'a'maat Forage Forest for a total of 89 participants, including the BC Parks summer 2020 field crew, the staff at Pluvio restaurant in Vancouver, and a homeschool group.

In August of 2020, we co-hosted a virtual Wetlandkeepers workshop with the BCWF's Wetlands Education Program, which attracted 20 participants. During the workshop, we invited participants to explore one of the proposed restoration sites within the Chrystal Creek watershed phase 1 area via a virtual 360 tour, and described the development process for our restoration plan for the site.

In September of 2020, we hosted 9 undergraduate students from the University of Victoria at the Millard Learning Centre, where they conducted field work and produced reports relating to the restoration of the Mill Site, the Chrystal Creek watershed, and our deer monitoring and management activities.

In October and November of 2020, we hosted undergraduate and graduate student groups from the University of Victoria, BCIT, and Simon Fraser University (totally 20 participants) to tour and assist with planting and live-staking as part of phase 1 of the restoration of the Chrystal Creek watershed.

Hundreds of people visit the Millard Learning Centre annually to walk the trails, visit our demonstration facilities, and tour our restoration sites – including as part of our annual Musical Waklalong for Learning, which attracts over 200 participants. We have no way of tracking these visits, but visitors are often informed of project activities through our interpretive signage and brochures.

Reactions to our work from participants have been uniformly positive and enthusiastic.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

HCTF is verbally acknowledged as a funder during outreach activities, and is acknowledged in print on our Nuts'a'maat Foraging Guide, produced in 2020. HCTF will be acknowledged in interpretive signage and brochures produced during the 2020-2023 period, and on our new website (launching in Spring 2021).

Media Coverage: Provide a list of any articles or media coverage during the year.

The Nuts'a'maat Forage Forest received coverage (including a full page illustrated trailmap from our 'Nuts'a'maat Foraging Guide') in Issue 10 (Spring 2021, pp. 30-31) of *Edible Vancouver Island*. The guide was produced with support from the Land Stewardship Grant and the Victoria Foundation, and HCTF is acknowledged on the printed version (this page was not included in the *Edible Vancouver Island* article).

Weblink:

https://mydigitalpublication.com/publication/?m=58539&i=693667&p=32&fbclid=IwAR1sBcqOBbU5IG9fVJZ3KE_-9-g-bE_-RcljNaRwI0AJL6s3b26LIYq0q88

4. PHOTOS

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

IMG-1171: Mic check! Hydrophone monitoring for red-legged frog breeding habitat at the Millard Learning Centre

Photo 2 File name and Photo Description:

IMG_0758: SFU and BCIT graduate students in the Ecological Restoration program establish native species as part of phase 1 restoration activities in the Chrystal Creek watershed

Photo 3 File name and Photo Description:

IMG_0945: GCA summer students clear broom in sensitive ecosystems on cliffs overlooking the Trincomali Channel at the Millard Learning Centre

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

No materials or supplies funded by the HCTF are considered Capital Assets.

Provide any other information you wish to share with HCTF.

The funding secured for phase 1 of the Chrystal Creek restoration includes a PCAF grant.

In-kind volunteer contributions to the project were limited in 2020 due to the COVID-19 pandemic, which prevented us from hosting several long-term (3-6 month) volunteer internships that had been previously scheduled. This particularly impacted our red-legged frog monitoring for the year, which was planned to be undertaken by a Masters student intern from Europe who had to cancel plans due to COVID-19 restrictions. We were able to do some baseline monitoring and troubleshoot our equipment and protocols, but a more complete study will have to wait until next year.


6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Proponent Signature	Date	Print Name
	2021-04-13	Adam Huggins

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



Figure 1 SFU and BCIT students restoration activities in the Chrystal Creek watershed



Figure 2 Hydrophone monitoring for red-legged frog breeding habitat at the Millard Learning Center



Land Stewardship Grant Report Year 1 of 2020-23 Cycle

Please read the Year 1 Reporting Instructions before completing this form.

From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Millard Learning Centre Project # 1-734	1. Protect sensitive ecosystems from invasive species and excessive browsing	Control target invasive species across property and eliminate from sensitive areas	Scotch broom (Cytisus scoparius) and tansy ragwort (Senecio jacobaeae syn. Jacobaea vulgaris) controlled or eliminated at target sites	Remove scotch broom (Cytisus scoparius) from Chrystal Cove annually	Yes	Scotch broom removed at Chrystal Cove in May 2020
				Remove scotch broom (Cytisus scoparius) from seepage sites and sensitive areas annually	Yes	Scotch broom removed across seepage sites and sensitive areas in May 2020
				Remove tansy ragwort (Senecio jacobaeae syn. Jacobaea vulgaris) across the property annually	Yes	Tansy Ragwort removed across property in May - July 2020
	1. Protect sensitive ecosystems from invasive species and excessive browsing	Expand, maintain, and monitor deer exclosures at restoration sites and permanent monitoring plots	Three years of data collected from permanet monitoring plots; deer exclosures maintained, allowing restoration sites and permanent monitoring plots to remain protected from browsing	Perform annual monitoring protocol at permanent monitoring plots	Yes	Annual browsing protocol performed for 2020, and pre-liminary results presented and analyzed in Uvic student report
				Regularly inspect deer exclosures to ensure their integrity against incursions; repair and / or replace damaged exclosures as needed	Yes	Deer exclosures inspected and maintained in 2020
				Create additional permanent monitoring exlosures at key locations to expand understanding of browsing impacts across ecosystem types / seepage areas	Yes	2 new exclosures (with control plots) established in 2020
	2. Ensure effective restoration by maintaining and monitoring established restoration projects	Maintain and monitor the Nuts'a'maat Forage Forest	Three years of detailed monitoring data collected for adaptive management and future publication; Nuts'a'maat Forage Forest maintained and expanded, with edible products obtained from most species by the end of year 3	Perform annual monitoring protocol in the Nuts'a'maat Forage Forest as laid out by Park & Higgs, 2017	Yes	Annual Forage Forest protocol performed for 2020, and results tabulated for internal analysis
				Control introduced thistles (Cirsium spp.) and agronomic grasses to assist establishment and productivity of native species	Yes	Thistles and grasses controlled in the Forage Forest throughout 2020 and winter 2021
				Establish additional native species as propagules become available from the nursery	Yes	New annual native wildflowers established in Forage Forest in 2020. Student report produced with recommendations for additional plantings in 2021 and 2022.
	2. Ensure effective restoration by maintaining and monitoring established restoration projects	Maintain and monitor the old mill and Chrystal Cove restoration sites	Old mill and Chrystal Cove restorations revisited, monitored, and maintained	Monitor to determine health and success of restoration treatments at old mill and Chrystal Cove restoration sites; determine necessary follow-up treatments	Yes	Detailed monitoring of plant success carried out at Old Mill site, and results presented in Uvic student report
				Perform follow-up treatments (removing cages, replacing dead plants, invasive species control, etc.) based on monitoring	Yes	Cages removed, replaced, and/or extended at Old Mill site, and invasive species managed at Old Mill and Chrystal Cove sites
				Restory utility road cut on old mill site	No	Planned for 2021
	3. Improve knowledge of species at risk on the property	Carry out surveys to identify new populations, suitable habitat, and / or health trends of existing populations for target species at risk	Data on habitat and population trends for red-legged frogs (Rana aurora) and dense-spike primrose obtained, and additional suitable habitat identified; presence/absence of sharp-tailed snake (Contia tenuis) determined, and suitable habitat areas assessed for introduction potential	Establish and perform annual monitoring protocol for red-legged frogs (Rana aurora) based on 2018 report, including presence / absence across suitable habitat on the property and population trends within known populations	Yes	A hydrophone was purchased, and basic survey work carried out in winter of 2021. Unfortunately, the student intern who was scheduled to focus on this monitoring project for her internship was unable to relocate to Galiano Island due to COVID-19 lockdowns; as a result, core GCA staff and volunteers carried out a modified version of the protocol.
				Survey suitable habitat for signs of sharp-tailed snake (Contia tenuis) as per the 2015 Provincial Recovery Strategy and 2011 status report on Species at Risk for Galiano Island	No	Planned for 2021 or 2022
				Survey property for additional populations of desne-spike primrose (Epilobium densiflorum) and identify sites for seeding	No	No additional populations observed in 2020. More detailed survey planned for 2021 or 2022
	4. Restore hydrological processes across the property	Prepare comprehensive restoration plan for the Chrystal Creek watershed based on expert consultation, reports, and additional surveys	Restoration plan for Chrystal Creek watershed prepared and budgeted; riparian vegetation established in key areas to prevent erosion	Review Design Concept Plan for Chrystal Creek Re-construction (2016) and perform additional surveys to expand project scope to watershed scale	Yes	Review performed and detailed surveys and site mapping carried out throughout 2020 and winter 2021. Project scope expanded to include entire watershed.
				Consult BCWF experts during summer 2020 wetland creation workshop at the MLC to assess restoration potential of the Chrystal Creek watershed	Yes	Presentation made to August 2020 BCWF Wetlandkeepers course (virtual) regarding site, and feedback + material support received from BCWF.
				Prepare comprehensive restoration plan for the Chrystal Creek watershed	Yes	Preliminary (overview) 3 phase plan for restoration of Chrystal Creek watershed prepared, including maps and workplan. Uvic student report on restoration treatments produced. Funding secured for Phase 1, and estoration is currently in progress on Phase 1.
	4. Restore hydrological processes across the property	Revegetate eroded riparian areas	Riparian areas protected against erosion across the property	Live-stake riparian areas and pond perimeters to stabilize soils and prevent erosion	Yes	Live-staking performed in constructed wetlands and bioswale in fall of 2020.
	5. Encourage public access to conservation lands, demonstration facilities, and restoration sites	Expand and maintain a high quality public trail network	10 km of trails maintained across the property, with some trails available at all times regardless of educational programs; clear signage and maps posted across trail network	Complete 2 km destination trail connecting parking area to Tranquility Bluff, to be open to the public year-round	Yes	Trail construction in progress, and slated for completion in summer of 2021.
				Maintain existing 8 km of trails, to be open to the public when youth education programs are not in session	Yes	Trails maintained in 2020.
				Repair and improve trail signage as needed	Yes	New trail map and brochure developed in 2020, and work on new signage and master trail map underway. New signs and brochure will be installed / published in 2021. Nuts'a'maat Foraging Guide designed and published in 2020.
	6. Ensure long term management goals are met	Update relevant management plans for 2020, taking organizational successes, feedback, and climate change into consideration	Key management plans updated to reflect successes and revise management priorities for the next decade	Revise and update Millard Learning Centre Management Plan (2013) for 2020	No	Planned for 2021
				Revise and update Invasive Alien Species Management Plan (2014) for 2020	No	Planned for 2021

1-734

Chemainus Estuary



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: **CAT21-1-735**

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Chemainus Estuary Lands owned by Ducks Unlimited Canada (DUC)

Project Leader Name: Jordan Bromley

Name of Organization: Q'ul-Ihanumutsun Aquatic Resources Society

Date of Report: April 15, 2021

Author of Report (if different than Project Leader): Include Jordan Bromley and Add Chad Ormond as co-lead.

Name of Organization: Q'ul-Ihanumutsun Aquatic Resources Society

Contact Information: jordanbromley@qars.ngo, 250-210-0800
chadormond@qars.ngo, 250-210-2255

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

No work in year 1 due to COVID-19 in the project community base. All activities completed in year 2.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

N/A



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

N/A

Media Coverage: Provide a list of any articles or media coverage during the year.

N/A

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

Photo 2 File name and Photo Description:

Photo 3 File name and Photo Description:

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

N/A

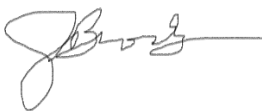
Provide any other information you wish to share with HCTF.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 15 th , 2021	Jordan Bromley

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent

2-673

Conservation - Rodgers



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 2-673

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Conservation – Rodgers Road

Project Leader Name: Liz Webster

Name of Organization: Savary Island Land Trust

Date of Report: April 12, 2021

Author of Report (if different than Project Leader):

Name of Organization: Savary Island Land Trust

Contact Information: silts@telus.net

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

In year 1 the project work involved contracting a legal surveyor to conduct a legal survey to determine the boundaries of this conservation land and install iron pins.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

The nature of the work in year 1 (legal surveys) did not include any outreach activities.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Information about the grant support from the Habitat Conservation Trust Foundation for this work is on page 2 of our annual Summer newsletter. See link below.

<https://drive.google.com/file/d/1i8BGTq52k8n1xySvBPDDtw6JROthnlth/view>

Media Coverage: Provide a list of any articles or media coverage during the year.

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

Photo 2 File name and Photo Description:

Photo 3 File name and Photo Description:

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

Provide any other information you wish to share with HCTF.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

The Year 1 grant has given us the legal survey and thus the foundation we need to proceed with Baseline Inventory in Year 2. We look forward to learning and sharing more information about this land in Year 2.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 12, 2021	Liz Webster

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



From Application						Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description	
<div>Rodgers Road Properties</div> <div>Project # 2-673</div>	Legal Survey of Property	Determine and register legal boundaries	Perimeter survey, mark corners, register with Land Title Office	Contract legal surveyor to survey perimeter, mark, determine and register boundaries	Yes	Legal Survey completed, corners marked and registered with Land Title	
	Baseline Inventory of Properties	Determine site use by and presence of plants and animals; refine ecological classification; determine ecological context, threats and value;	Better understand ecological attributes of properties and landscape (spatial) consideraions to guide future acquisitions and land use.	vegetation plot sampling for BEC site series and delineation within properties soil sampling for wetland properties (Rodgers Rd.) wetland classification			
				other features: snags, coarse woody debris significant features (veteran trees, boulders, seepage sites, ephemeral wetlands or depressions) general plant species inventory rare plant species: vascular plants and bryophytes			
				breeding bird survey (point count) + incidentals during other work bird nest survey (particularly raptors and herons) bird use survey: other sign such as roosting, etc. ecological/landscape context, threats identify collected plants (vascular and bryophytes) deposit plant specimens at UBC herbarium			

2-674

Conservation - Savary Island Road



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 2-674

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Conservation- Savary Island Road

Project Leader Name: Liz Webster

Name of Organization: Savary Island Land Trust

Date of Report: April 12, 2021

Author of Report (if different than Project Leader):

Name of Organization: Savary Island Land Trust

Contact Information: silts@telus.net

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

In year 1 the project work involved contracting a legal surveyor to conduct a legal survey to determine the boundaries of this conservation land and install iron pins.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

The nature of the work in year 1 (legal surveys) did not include any outreach activities.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Information about the grant support from the Habitat Conservation Trust Foundation for this work is on page 2 of our annual Summer newsletter. See link below.

<https://drive.google.com/file/d/1i8BGTq52k8n1xySvBPDDtw6JROthnltH/view>

Media Coverage: Provide a list of any articles or media coverage during the year.

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

Photo 2 File name and Photo Description:

Photo 3 File name and Photo Description:

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Provide any other information you wish to share with HCTF.

The Year 1 grant has given us the legal survey and thus the foundation we need to proceed with Baseline Inventory in Year 2. We look forward to learning and sharing more information about this land in Year 2.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 12, 2021	Liz Webster

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Savary Island Road	Legal Survey of Property	Determine and register legal boundaries	Perimeter survey, mark corners, register with Land Title Office	Contract legal surveyor to survey perimeter, mark, determine and register boundaries	Yes	Legal Survey completed, corners marked and registered with Land Title
	Baseline Inventory of Properties	determine site use by and presence of plants and animals; refine ecological classification; determine ecological context, threats and value;	Better understand ecological attributes of properties and landscape (spatial) consideraions to guide future acquisitions and land use.	vegetation plot sampling for BEC site series and delineation within properties; other features: snags, coarse woody debris		
				significant features (veteran trees, boulders, seepage sites, ephemeral wetlands or depressions) general plant species inventory rare plant species: vascular plants and bryophytes		
				breeding bird survey (point count) + incidentals during other work bird nest survey (particularly raptors and herons) bird use survey: other sign such as roosting, etc. ecological/landscape context, threats identify collected plants (vascular and bryophytes) deposit plant specimens at UBC herbarium		

2-675

Conservation - Vancouver Boulevard



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: #2-675

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Conservation-Vancouver Blvd

Project Leader Name: Liz Webster

Name of Organization: Savary Island Land Trust

Date of Report: April 12, 2021

Author of Report (if different than Project Leader):

Name of Organization: Savary Island Land Trust

Contact Information: silts@telus.net

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

In year 1 the project work involved contracting a legal surveyor to conduct a legal survey to determine the boundaries of this conservation land and install iron pins.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

The nature of the work in year 1 (legal surveys) did not include any outreach activities.



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Information about the grant support from the Habitat Conservation Trust Foundation for this work is on page 2 of our annual Summer newsletter. See link below.

<https://drive.google.com/file/d/1i8BGTq52k8n1xySvBPDDtw6JROthnlth/view>

Media Coverage: Provide a list of any articles or media coverage during the year.

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

Photo 2 File name and Photo Description:

Photo 3 File name and Photo Description:

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Provide any other information you wish to share with HCTF.

The Year 1 grant has given us the legal survey and thus the foundation we need to proceed with Baseline Inventory in Year 2. We look forward to learning and sharing more information about this land in Year 2.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 12, 2021	Liz Webster

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Vancouver Boulevard	Legal Survey of Property	Determine and register legal boundaries	Perimeter survey, mark corners, register with Land Title Office	Contract legal surveyor to survey perimeter, determine and register boundaries	Yes	Legal Survey completed, corners marked and registered with Land Title
	Baseline Inventory of Properties	determine site use by and presence of plants and animals; refine ecological classification; determine ecological context, threats and value;	Better understand ecological attributes of properties and landscape (spatial) consideraions to guide future acquisitions and land use.	vegetation plot sampling for BEC site series and delineation within properties; other features: snags, coarse woody debris		
				significant features (veteran trees, boulders, seepage sites, ephemeral wetlands or depressions) general plant species inventory rare plant species: vascular plants and bryophytes		
				breeding bird survey (point count) + incidentals during other work bird nest survey (particularly raptors and herons) bird use survey: other sign such as roosting, etc. ecological/landscape context, threats identify collected plants (vascular and bryophytes) deposit plant specimens at UBC herbarium		



2-676

Frenchies Island



Land Stewardship Grant 2020-23

FINAL YEAR REPORT FORM

HCTF Project Number: __CAT21-2-676__

Please refer to the Land Stewardship Grant Final Year Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customized for your project based on your proposal.

1. PROJECT INFORMATION

Project/Property Name: Frenchies Island

Project Leader Name: Sarah Nathan

Name of Organization: Ducks Unlimited Canada

Date of Report: April 15 2021

Author of Report (if different than Project Leader): Same as above

Name of Organization:

Contact Information: s_nathan@ducks.ca 778-888-1706

2. SUMMARY

Provide a general description of project work completed in the last year (500 words max).

Frenchies is a deltaic island located in the lower Fraser River Estuary, British Columbia, Canada (Attachment 1 Figure 1; 49° 6'6.33"N, 123° 6'49.55"W). Owned and managed by Ducks Unlimited Canada (DUC), Frenchies Island lies within the South Arm Marshes Wildlife Management Area (SAMWMA), a 937-ha protected area established in 1991 to conserve wildlife habitat, including several species of high cultural and conservation value.

Prior to 2010, Frenchies Island was comprised of a diked agricultural field, where DUC grew crops to attract waterfowl for hunting purposes, and a small number of drainage ditches. In 2010, DUC collaborated with regional staff from Department of Fisheries and Oceans to restore the island to increase the habitat value of the site for fish and waterfowl. DUC and DFO the dike in three locations and, excavating a network of tidal channels for fish and waterfowl to a maximum depth of 0.3 m. No plantings occurred; practitioners depended on natural colonization from neighbouring marsh plants. Historical imagery indicates Frenchies Island was rapidly colonized by non-native cattail within a few years of restoration. Photos taken by DUC staff suggest these cattails were already present in the

Land Stewardship Grant 2020-23

FINAL YEAR REPORT FORM

agricultural ditches of Frenchies Island prior to restoration (Attachment 1, Appendix A), but propagules may have also arrived from the adjacent SAMWMA, where they have been established for decades.

DUC initiated two studies in partnership with graduate students to restore Frenchies Island from cattail monoculture to native tidal marsh vegetation and to assess the impacts of invasive cattail on fish and wildlife. UBC Masters student Dan Stewart initiated an adaptive management experiment on Frenchies Island as part of his research in 2019; Dan's research continued throughout 2020. Simultaneously, DUC and conservation partner agency Raincoast Conservation Foundation, initiated a study to evaluate the foodweb impacts of invasive cattail. This involved collecting benthic invertebrate samples in monotypic invasive *Typha* stands within Frenchies, at non-diked sites in SAMWMA and in nearby native vegetation to determine if invasive cattail impacts benthic invertebrate abundance or biomass. In 2020, BCIT/SFU Ecological Restoration Program graduate student Jan Lee took over the benthic study for his Masters degree research. Both studies were funded in part by this HCTF Land Stewardship grant.

Invasive Cattail Control Experiment

Dan divided Frenchies into nine treatment zones, including three replicates of three treatments including two cuts of cattail per season, three cuts of cattail per season, and control (Attachment 1 Figure 2). In 2020, Dan collaborated with DUC staff to complete year 2 of the cattail cutting experiment at Frenchies. Dan also established 72 1 m x 1 m plots across all treatment zones to evaluate the impacts of leaf litter on cattail regrowth. Please refer to Attachment 1 for details.

Benthic Invertebrate study

Using our 2019 benthic invertebrate data, Jan conducted a power analysis, and re-designed our benthic invertebrate sampling program to ensure sufficient statistical power. Jan collaborated with DUC staff to collect benthic invertebrate samples at Frenchies and in adjacent control areas. Samples went to Biological Labs in Victoria BC for analysis in August, and Jan completed statistical analysis of lab results in fall/winter 2020/2021. Please refer to Attachment 2 for details.

Please provide a general summary of overall project outcomes (500 words max).

Invasive Cattail Control Study Outcomes (Refer to Attachment 1 for further detail)

After two years of field work, Dan's research shows that cattail appears resilient to all cutting treatments. Averaged across all elevations, density of individual cattail stems (ramets) was about the same between years 1 and 2 in leaf litter present plots, and density increased from year 1 to year 2 in plots where leaf litter was removed. Despite these discouraging results, treatments did show benefits with cattail declining significantly at lower marsh elevations (below 0.27 m). Further, rhizome biomass decreased significantly in treatment plots, indicating that below ground stores are being depleted by treatments. This suggests that cattail regrowth could be interpreted as a symptom of stress rather than resilience. This interpretation is further supported by data on flower production, which exhibited a dramatic decline in both cutting treatments. The three-cut treatment had the greatest effect on rhizome biomass.

Dan's study showed that even a single round of cutting was effective at removing cattail from lower elevations in Frenchies. This results is promising, since lower elevation sites on Frenchies translate to the network of tidal channels. These channels were designed to provide fish passage and aquatic foraging habitat for waterfowl, increasing their relative importance compared to higher elevation locations.

Benthic Invertebrate Study Outcomes

Land Stewardship Grant 2020-23

FINAL YEAR REPORT FORM

The outcomes of Jan Lee's research are straightforward: regardless of location (Frenchies Island or elsewhere in SAMWMA), benthic macroinvertebrate biomass was lower in invasive cattail compared to native vegetation communities (i.e. *Carex Lyngbeyi*; Attachment 2 Figure 3, Figure 7). Benthic invertebrate diversity was not affected by vegetation community (Attachment 2 Figure 8). Jan suggests that this could be due to decreased light penetration, which results from the very tall dense vegetation characteristic of invasive cattail compared to native *Carex* spp. Other authors cited in Jan's work note that decreased light penetration in invasive cattail stands leads to lower temperature and correspondingly lower invertebrate abundance. This is an important result: since macroinvertebrates form a key food resource for both juvenile salmon and waterfowl, Jan's study suggests that controlling cattail on Frenchies to manage the island for these species is worth the trouble. In particular, Chinook salmon, a species of key importance for sustaining endangered resident killer whales, forage heavily on benthic invertebrates.

3. LESSONS LEARNED

Describe any problems or challenges that arose and how you addressed them in order to proceed with the project. What have you learned that would be valuable to share with others that may be undertaking a similar project?

These two research programs yielded valuable guidance for our conservation work at Frenchies Island. Dan Stewart's research indicates that controlling invasive cattail is labour intensive and yields mixed results. Over the past two years, cutting cattail on Frenchies has depended on availability of DUC staff, collaborators, and volunteers. Cutting in year 1 was most labour intensive. However, once the initial cut was complete, productivity (area cut per hour) increased noticeably in subsequent years (Attachment 1 Figure 15). Frenchies is a relatively small site (2 ha) on the scale of the entire Fraser Estuary, and DUC boasts a large, energetic, and passionate field staff (especially once summer students come aboard). Because of this, cattail cutting at Frenchies will occur once again in 2021; the three-cut treatment will be extended to control areas.

Jan Lee's research underscores the importance of removing invasive cattail from sites in the Fraser Estuary where feasible. As per Dan's recommendations, while large-scale eradication is likely not possible, targeted removal of invasive cattail should be undertaken strategically where possible to improve native vegetation diversity. Jan's research shows that these benefits would also extend to the benthic invertebrates; key prey items for the species we manage for (waterfowl and salmon). Further study of the mechanistic underpinnings of the relationship between cattail and benthic invertebrates would be beneficial. A particularly useful extension would be comparison of benthic invertebrate abundance and biomass in native vegetation species other than *C. Lyngbeyi*.

4. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

Land Stewardship Grant 2020-23

FINAL YEAR REPORT FORM

Outreach activities were minimal due to covid19, however we were able to engage a few volunteers in assisting with benthic invertebrate sampling and cattail cutting.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

We communicate regularly about our projects, thanking our funders, on social media. Please see the following links for our communications on Frenchies island:

<https://www.facebook.com/ducinbc/posts/3140548666027272>

<https://www.facebook.com/watch/?v=325422981964960>

<https://www.facebook.com/ducinbc/posts/3490195041062631>

Media Coverage: Provide a list of any articles or media coverage during the year.

5. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description: Photo 1 Frenchies Dan Stewart Cutting Cattail

This is a photo of graduate student Dan Stewart cutting invasive cattail on Frenchies Island

Photo 2 File name and Photo Description: Photo 2 Jan Less helps cut invasive cattail on Frenchies

This is a photo of graduate student Jan Lee cutting cattail as part of the adaptive management experiment lead by Dan Stewart. The two students collaborated across their respective research projects.

Photo 3 File name and Photo Description: Photo 3 Frenchies Island Aerial View

This photo provides a drone captured image of Frenchies Island and surrounding tidal marsh

6. ADDITIONAL DETAILS



Land Stewardship Grant 2020-23

FINAL YEAR REPORT FORM

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Final Year Reporting Instructions for information on Capital Assets.

None.

Provide any other information you wish to share with HCTF.

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Grant Report 2020-21
- Please send your Final Year Grant Report to reporting@hctf.ca
- Your report should include the following:
 - Completed Final Year Grant Report Form (this document)
 - Completed Final Year Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for remaining funds

By submitting this grant report, you certify that this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.



Figure 1 Dan Stewart cutting cattail



Figure 2 Frenchies Island aerial view



Land Stewardship Grant Report Year 1 of 2020-23Cycle

Please read the Year 1 Reporting Instructions before completing this form.

From Application					ACTIVITIES & OUTCOMES REPORT	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Activities Completed	Expected Outcome/Performance Indicators met? (Yes/No/Partial)
Frenchies Island	Decrease presence of native speices on the properties	Control invasive european cattail on Frenchies Island using adaptive management experiment	Restore native estuarine marsh vegetation communities (e.g. sedges, soft-stemmed bulrush, wapato)	Cut T. angustifolia as per adaptive management plan	Complete: in 2020, we completed cattail cutting for a second year as per Dan Stewart's adaptive management plan	Yes, please refer to report.
				Apply most effective treatment to control plots	We have received funds for this component from a different funder and not longer require this amount from HCTF	
				Final year of treatment (cutting)	We have received funds for this component from a different funder and not longer require this amount from HCTF	
	Support benthic invertebrate prey for fish and waterfowl	Inventory benthic invertebrates in invasive typha compared to native vegetation at Frenchies	Determine whether benthic invertebrate abundance and or diversity is affected by invasive T. angustifolia at Frenchies; use this to guide restoration actions on Frenchies	lab to analyse 10 benthic invertebrate samples at Frenchies Island year 1	Complete. Bethic samples were collected twice at four locations within or immediately outside Frenchies island; benthic samples were collected twice at another 21 locations near Frenchies in the south arm marshes to determine the influence of invasive cattail on benthic invertebrates. This had important implications for management of Frenchies Island.	Yes, please refer to report.
	Project #2-676					



3-425

**Turtle Valley Farm/Toad Hollow Invasive
Plant Management and Rehabilitation
Project**



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: 3-425

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name:

Turtle Valley Farm/Toad Hollow Invasive Plant Management and Rehabilitation Project

Project Leader Name: Danielle Cross

Name of Organization: Nature Conservancy of Canada

Date of Report: March 24, 2021

Author of Report (if different than Project Leader):

Name of Organization:

Contact Information:

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

During Year 1 the Nature Conservancy of Canada (NCC) was able to:

Complete site visits with the Thompson Nicola Invasive Plant Management Committee and contractors to complete an invasive plant inventory and establish site specific recommendations,

Establish 2 transects within the disturbed meadow to measure species composition change over time,

Collect soil samples and create and purchase appropriate seed mixes,

Release biocontrol agents for Canada thistle and spotted knapweed,

Complete chemical control for multiple invasive plant species in the disturbed meadow and along the roadway,

Complete Riparian Health Assessment for large wetland complex,

Remove rotten fence sections to be replaced with wildlife friendly fence and purchased fencing material, and

Negotiated placement of gate across public road with MOTI and neighbour to stop livestock trespass.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

Due to the Covid-19 pandemic, NCC canceled or postponed all conservation volunteer events and programs for the safety of its staff and the communities NCC works in across the country. As a result, the Year 1 volunteer weed pull did not occur, however there may be an opportunity to hold a small volunteer weed pull in Year 2, an option that was in the original proposal. As well there is still the shrub planting in Year 3 to include volunteers and provide an outreach event.

Project was mentioned at the Operational Land Managers Invasive Plant Management and Strategic Planning meetings for the Thompson Nicola Regional District. Currently there are talks about the Thompson Nicola Invasive Plant Management Committee showcasing the invasive species work and rehabilitation occurring on this property either through annual reporting to stakeholders or a field tour. If this occurs HCTF funding and support will be outlined in any publications or tours.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

N/A

Media Coverage: Provide a list of any articles or media coverage during the year.

N/A

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

quadrathawkweed.jpg = Quadrat showing extent of hawkweed cover.

Photo 2 File name and Photo Description:

cattailmarsh.jpg = Cattail marsh taken during riparian health assessment.

Photo 3 File name and Photo Description:

overview_invasive_meadow.jpg = Overview of invasive species extent in disturbed meadow.

Photo 4 File name and Photo Description:

sprayed_cypress_spurge.jpg = Monitoring invasive plant chemical treatment effectiveness.

Photo 5 File name and Photo Description:

horse_trespass.JPG = Horses caught on trail camera trespassing at Toad Hollow.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

5. ADDITIONAL DETAILS


Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

N/A

Provide any other information you wish to share with HCTF.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	March 24, 2021	Danielle Cross

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent

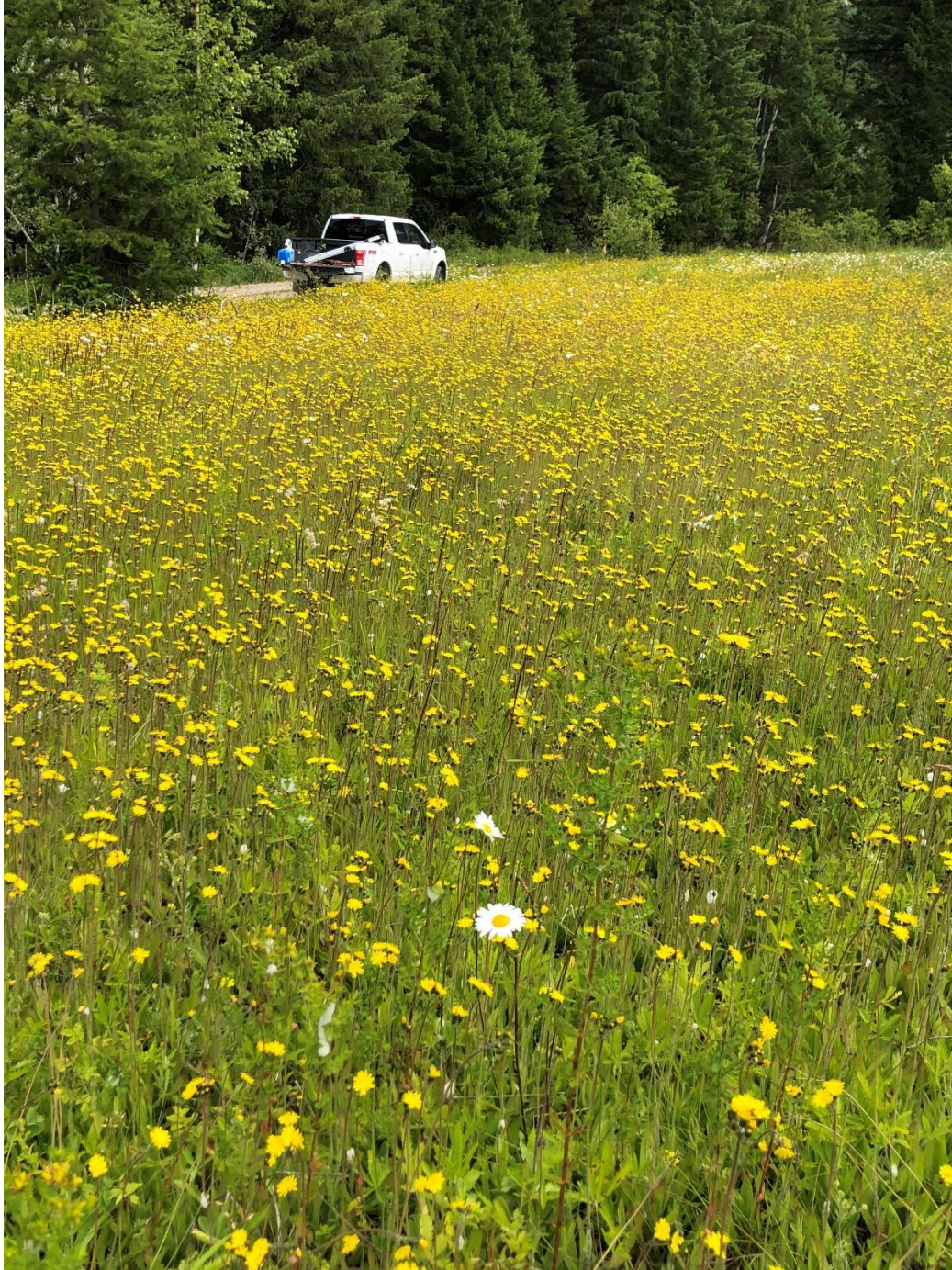


Figure 1 Invasive Meadow

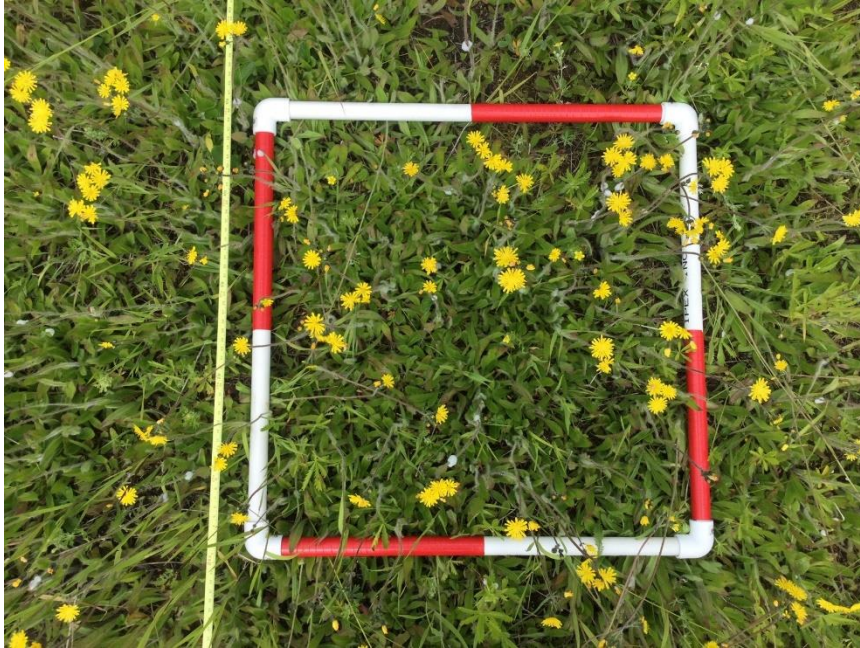


Figure 2 Quadrant Hawkweed



Figure 3 Sprayed Cypress Spurge



From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
<div>Toad Hollow (Turtle Valley Farm)</div> <div>Project # 3-425</div>	Reduce invasive plant species coverage on distrubed meadow and along road right-of-way	Control or eradicate invasive plant species using best management practices	Invasive species inventory completed and target of 60% reduction in coverage of priority species by 2023 (Year 3)	Chemical control applications by contractor - Year 1 and 2, using best management practices as discussed with local invasive species council and through research by NCC staff	Yes	Multiple site visits with TNIPMC, local expert and contractor to determine BMPs for the site. Invasive chemical control completed on July 15 and 27.
				Release of biocontrol agents as available for Canada thistle and spotted knapweed in particular	Yes	June 29 spotted knapweed bio control (Larinus obtusus, seed feeding weevil) released at 2 sites and on July 9 Canada thistle biocontrol released.
				NCC staff to conduct pre-treatment inventory and assessment and monitor effectiveness of invasive management control adjusting if necessary to ensure effectiveness (Year 1, 2 and 3)	Yes	Installed 2-30m transects prior to first invasive species treatment. Species and species percent covers were measured and recorded in a 1m2 quadrat every 3m along the transects. Photos were taken at each quadrat.
	Maintain reduction in invasive plant coverage	Control or eradicate invasive plant species using best management practices	Invasive plant management plan in place and being utilized (Start of Year 2 and beyond).	TNIPMC to develop Invasive Plant Management Plan by 2021.	Yes	TNIPMC completed an invasive species invetory and made control recommendations. Report provided to NCC.
	Maintain or increase riparian health scores	Protect riparian areas for wildlife such as wetland dependant birds, moose and species at risk including Western Toad	Riparian Health Assessments completed and riparian areas score a Healthy rating by 2023 (Year 3)	NCC staff to conduct Riparian Health Assessments in Year 1 prior to invasive species control and fencing and then in Year 3 to measure effectiveness of treatments and fencing.	Yes	Riparian Health Assessment was completed June 18 on large central wetland adjacent to majority of invasive species work and restoration site.
	Increase cover of natural vegetation on disturbed meadow	Establish natural vegetation including shrubs on the disturbed meadow	Restoration site assesment completed with natural vegetation and grass species establishing on 30% of the site by 2023 (Year 3)	NCC to conduct pre-treatment inventory of disturbed meadow and then post-treatment inventories in Year 2 and Year 3	Yes	Pre-treatment completed via installation of 2 transects as outlined above.
				Fall seed after spring chemical application on disturbed meadow	Yes	Seed purchased, fall seeding was not completed due to conditions and time constraints. Seeding will be completed spring 2022 after remaining fence installed.
				Plant shrubs in disturbed meadow (Year 3)	No	Planned for Year 3.
	Control livestock trespass on the property	Eliminate horse trespass and associated grazing and trailing on the property	Cattleguard installed along the road transecting the property and 2.4 km of functioning wildlife friendly fencing are in place along the property boundary to prevent livestock, mainly horses, from accessing the property via adjacent private land.	Replace or repair when possible 2.4 km of fence with wildlife friendly fencing (smooth top wire no more than 40" high, with bottom wire 18" above ground), no stays, post placement about 16 ft. apart, remove all exisiting fence and wire and dispose off site (Year 1).	Yes	Rotten posts have been removed and wire rolled up where fence needed to be replaced. Fence right of way is ready for new fencing install where required and fence materials have been purchased. Fencing was delayed due to contractor availability and then restrictions to work due to fire hazard and ground conditions. Fence install to be completed May 2022.
				Inspect fence annually. Make adjustments and repairs as necessary to ensure horses do not enter the property (Year 2 and 3)	No	Planned for Year 2 and 3.
				Install cattleguard along the road at east property boundary (Year 1)- Deleted - \$ reallocated to fencing	N/A	Due to restrictions from MOTI a cattleguard could not be placed along this road but after negotiations the neighbor and MOTI have agreed to allow NCC to gate the road to prevent livestock trespass.
	Engage local community in invasive plant awareness and management and conservation lands	Engage local community members to particpate in weed pulls or shrub planting volunteer days	A handful of local volunteers take an interest in and actively participate in the continued conservation activities on this property.	Host weed pull day to assist with mechanical removal around wetland and forest edges - Year 1, with potential for second in year 2	No	Due to covid no volunteer days were held in 2020. Will revisit for Year 2 which was listed as an option in original application. Some mechanical removal of hoary allyssum was completed by TNIPMC.
Engage neighbors to report any livestock or other issues on the property - ongoing				Yes	Communication with main neighbor is ongoing. Another neighbor agreed to store fencing materials for NCC over winter.	
Install additional property signs - Year 2				No	Planned for Year 2.	

4-551

Fort Shepherd Conservancy Area



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: CAT21-4-551

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Fort Shepherd Conservancy Area

Project Leader Name: Karen Iwachow, Environmental Technician & Land Manager

Name of Organization: TLC The Land Conservancy of British Columbia

Date of Report: April 14, 2021

Author of Report (if different than Project Leader):

Name of Organization: TLC The Land Conservancy of British Columbia

Contact Information: 5150 Cordova Bay Road, Victoria BC V8Y 2K6
250-479-8053
kiwachow@conservancy.bc.ca

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

BC health officials shut down most of the activities in the province in March of 2020 as a response to the Covid-19 pandemic which greatly affected TLC's operations and projects, limiting staff capacity and travel. Project leader for Fort Shepherd was on Medical leave for 5 months forcing activities at Fort Shepherd for the most part to be postponed to 2021 as a measure to keep staff and contractors safe in light of the pandemic.

The primary goal of this funding is to create an updated management plan. Our contractor who developed the initial management plan in 2007 was rehired to conduct the update. Pandion Ecological Research Ltd. Became unavailable due to restrictions and protocols set as a result of the Covid-19 pandemic in 2020 and will begin the work to April 2021.

In the fall of 2020, pandemic restrictions eased, and TLC placed safety protocols which allowed the local Volunteer Steward to conduct some maintenance work in removing 200 feet of fencing to allow unrestricted wildlife movement and improve accessibility for access water and foraging areas. Outdated and confusing signage which directed motorized and nonmotorized access were removed as well. They

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

began removing invasive species in high priority areas which included the removal of Yellow flag iris and Black locust from the Columbia river shoreline and properly disposed.

TLC staff contributed 20 hours towards relationship development with BC Hydro, Fortis BC and Teck Metals Ltd. To protect and enhance the ecological values on partner Right of Ways at Fort Shepherd. TLC continues to discuss best management practices on those lines with partners.

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

Due to the Covid-19 pandemic and guidance provided by the Health Officer of BC. All community and outreach activities were postponed for 2020.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Due to the Covid-19 pandemic which greatly affected TLC's operations and limiting staff capacity activities specific to communicating about HCTF with TLC membership and the British Columbia community was limited to Fort Shepherd's project page on the TLC website.

Media Coverage: Provide a list of any articles or media coverage during the year.

<https://conservancy.bc.ca/featured-projects/fort-shepherd/>

4. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description: 2020-Ft Shep-fence removal_access road by plot 2.jpg
Removing fencing which was once used to control access to ATV and dirt-bike activities which damaged sensitive habitat. Today these fences were removed to improve wildlife movement as motorized activities have ended at Fort Shepherd.

Photo 2 File name and Photo Description: 2020-Ft Shep-Iris removal_digging.jpg volunteer stewards working on invasive plant removal of yellow flag iris.

Photo 3 File name and Photo Description: Photo 3 Fort Shepherd Landscape.jpg View of the lower branches of Fort Shepherd in summer looking south.

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.


No materials or supplies were purchased with HCTF funds before March 31 2021

Provide any other information you wish to share with HCTF.

The pandemic greatly affected TLC's capacity and ability to travel to conduct work as Fort Shepherd is 10 hours drive from TLC's office in Victoria. It also affected the ability for partners and volunteers to conduct work safely. We now have protocols and safety measures in place and project partners feel that we can continue to work on this project accordingly to provincial safety guidelines.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	April 14, 2021	Karen Iwachow

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent



Please read the Year 1 Reporting Instructions before completing this form.

From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Fort Shepherd	Management Plan Update	Update the existing management plan to reflect restoration that has occurred, changes in habitat conditions, access management and address climate change stressors.	Management Plan is updated and objectives are implemented.	Contract Pandion Ecological Research Ltd. to prepare management plan	yes	Contract was signed with Pandion Ecologisal Research Ltd. To prepare management plan. Due to Covid-19, beginning of work was postponed to 2021 spring.
				TLC staff coordination and support for management plan creation	no	
				TLC coordination with partners to implement management plan action items	no	
Project # 4-551	Maintain and restore ecosystem integrity, health, and biological diversity with a climate change lens.	Improve representative habitats, elements, and species at risk (SAR)	Comprehensive species inventories for identified sites. Populations of SAR are maintained or increased relative to baseline.	Species inventories completed by staff or contractors	no	
				Develop weed management plan with BCTC, FortisBC and TCML to not impact SAR recovery actions	yes	TLC staff held several meetings with FortisBC, Teck Metals Ltd., and BCHydro to discuss appropriate treatment plans on the Right of Way easements to best serve conservation and maintenance and safety
				Riparian area survey for knapweed control	no	
	Maintain and restore ecosystem integrity, health, and biological diversity with a climate change lens.	Improve winter range habitat for ungulates	Increased number of wintering ungulates due to enhanced winter forage	Brushing of decadent shrubs to reduce fuel load, improve growth for drought conditions and improve forage for ungulates	no	
				Remove fencing to allow unrestricted wildlife movement	yes	200 feet of cattle fencing was removed by volunteer steward at the north entrance of Fort Shepherd to improve access for wildlife to the river.
				Native shrub planting along roadways, in riparian areas and along ROWs.	no	
	Maintain and restore ecosystem integrity, health, and biological diversity with a climate change lens.	Increase the number of wildlife trees and coarse woody debris (CWD)	Increased density of CWD and increased populations of wildlife tree-dependent species on site.	Create wildlife trees and large hollow logs using mechanical means	no	
				Install bird nesting boxes for wildlife tree-dependent species as interim habitat	no	
	Encourage initiatives that promote public awareness, stewardship and educational opportunities	Foster a sense of stewardship over the land.	Regular community-led outings to contribute to stewardship objectives (e.g. winter ungulate counts, Christmas bird count, SAR surveys).	Interpretive signage at key entry points	no	
				Publicize new management goals and activities through open-house events with the community on the land	no	
				Promote training and educational opportunities with post-secondary programs	no	
	Manage human land use opportunities that do not compromise conseration and management of it's ecological values	Create access management plan for easement/right of way contractors and trail users	25% of unused roads decommissioned with signage for all retained roads to remain	Continue road decommissioning of unauthorized/unused roads	no	
				Meet with BCTC, FortisBC and TCML representatives on site to conduct a powerline access road inventory	no	
				Install trail markers	no	
Protect and enhance the ecological and archeological vales	Control or eliminate invasive species using best management practices	Reduction in invasive species coverage and vigour. Increase in habitat for native species and SAR.	Conduct work parties with community volunteers to remove invasive species in high priority areas	yes	Volunteer stewards traversed the shoreline from north to south of the Conservancy and dug out, bagged and disposed of at the landfill of Yellow flag iris.	
			Identify critical habitat for SAR and address threats	no		
			Monitoring and management of regrowth in treated areas	no		



4-606

Morrissey Meadows



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

HCTF Project Number: CAT21-4-606

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: Morrissey Meadows Habitat Enhancement

Project Leader Name: Richard Klafki

Name of Organization: Nature Conservancy of Canada

Date of Report: April 12th, 2021

Author of Report (if different than Project Leader): Kate MacKenzie

Name of Organization: Nature Conservancy of Canada

Contact Information: 250-812-0539, kate.mackenzie@natureconservancy.ca

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

Invasive plant management went ahead in Year 1 as planned. Nature Conservancy of Canada (NCC) staff coordinated with the East Kootenay Invasive Species Council (EKISC) to complete chemical treatments in fall of 2020. High priority species around the homestead and adjacent to Elk River were targeted with herbicide treatments, including Caraway, Spotted Knapweed, and Burdock. Other lower-priority species such as Wormwood and Yellow/Common Toadflax were also treated advantageously. This is the second year that EKISC and NCC have collaborated on invasive plant treatments at Morrissey Meadows, and effectiveness monitoring of treated sites has already revealed an extensive reduction in Burdock infestations particularly around the old homestead site. EKISC recommends similar treatments in subsequent years to successfully manage infestations.

Planning for riparian habitat restoration was well underway in Year 1. The original plan to complete riparian vegetation plantings along the Elk River shoreline was significantly expanded upon when an opportunity came up for NCC to partner with the Regional District of East Kootenay (RDEK) on a larger fish habitat restoration project. In order to comply with regulations set by the federal Fisheries Act, the

Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

RDEK is required to complete a fish habitat creation project along the Elk River in order offset damages to fish habitat caused by an upstream shoreline hardening project. NCC agreed to collaborate with the RDEK to complete this project and construct fish habitat in a backwater channel on Morrissey Meadows, in the same location that NCC had originally planned to re-vegetate following degradation by cattle. The project will involve the construction of two ponds in the backwater channel that are connected by a stream to facilitate fish passage. The shoreline will be regraded and stabilized using root wads and placement of live dogwood and willow cuttings embedded into the banks, which will prevent bank erosion while the site naturalizes. The entire project area will be seeded with a native grass mix, planted with appropriate riparian vegetation, and fenced off from cattle. Construction is tentatively planned to commence in fall of 2021 and will proceed throughout the winter of 2021-22. Cattle exclusion fencing will be installed following construction.

Funding for this project was not confirmed until October 2020, so the majority of planned activities will occur during the 2021 and 2022 field seasons (years 2 and 3).

3. COMMUNICATIONS

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

NCC staff hosted a field tour at the Morrissey Meadows property in October 2020 as part of the Kootenay Conservation Program (KCP) annual AGM and fall gathering event. Attendees included academic researchers, conservation partner groups, and staff from the Ministry of Forest, Lands, Natural Resource Operations and Rural Development. NCC staff shared information about current and future stewardship activities taking place on the property, including fish habitat/riparian restoration and invasive plant management. Reactions from attendees were overwhelmingly positive, and new connections were made that will advance conservation/stewardship partnerships and collaboration opportunities in the East Kootenay region.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

Several funding partners including HCTF were highlighted during the Morrissey Meadows tour in October 2020. As restoration work commences in year 2, NCC foresees many opportunities to acknowledge HCTF and the Province of BC in public outreach communications.

Media Coverage: Provide a list of any articles or media coverage during the year.

Year 1 of the project did not include any media coverage.

The KCP fall gathering field tour on Morrissey Meadows was highlighted on the KCP website:
<https://kootenayconservation.ca/2020-fall-gathering/>

4. PHOTOS



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Photo 1 File name and Photo Description:

"IMG_5948" – Pre-restoration image of the Elk River backwater channel on Morrissey Meadows.

Photo 2 File name and Photo Description:

"IMG_1623" – Image of old residential building currently providing habitat for bats on Morrissey Meadows. Refuse will be cleaned from this building and several others to improve bat habitat.

Photo 3 File name and Photo Description:

"Fish habitat design plan" – Initial draft design plan developed by the RDEK for fish habitat construction in the Elk River backwater channel on Morrissey Meadows.

5. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.

There were no capital assets purchased in year 1.

Provide any other information you wish to share with HCTF.

In year 1, funding provided by HCTF has helped NCC address the issue of invasive plants and explore new partnerships in the development of a fish/riparian habitat restoration project. This provides a solid starting point for NCC staff to continue habitat management activities on Morrissey Meadows over the next several years, and collaborate with partners to develop resilient, functional landscapes for a diversity of wildlife.

6. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature


Date

Print Name



Land Stewardship Grant 2020-23

YEAR 1 REPORT FORM

	April 12, 2021	Kate MacKenzie
---	----------------	----------------

7. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2020-23
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent

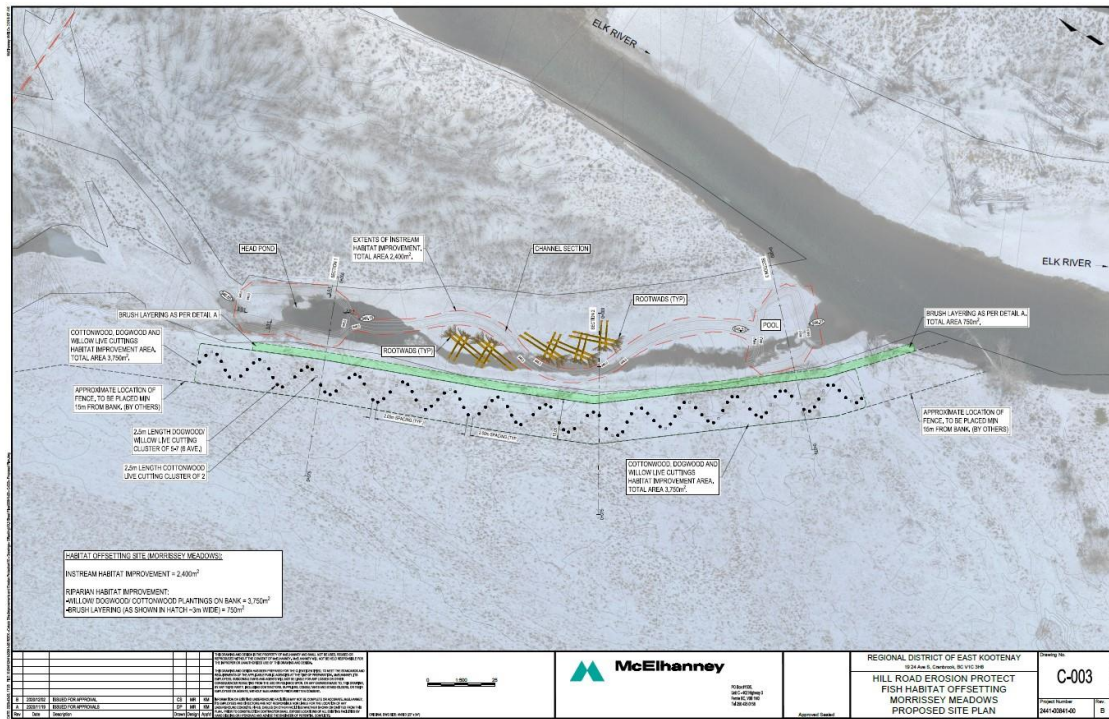


Figure 1 Fish habitat design plan



Figure 2 Residential building currently providing habitat for bats on Morrissey Meadows.



From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
Morrissey Meadows	Restore and enhance the shoreline and riparian habitat of the Elk River and its side channels.	Improve bank stability and the condition of riparian vegetation along the Elk River for aquatic spcies such as Bull Trout and Westslope Cutthroat Trout.	Strategic fencing is installed to exclude cattle from the Elk River shoreline in spring of 2021 prior to restoration activities. Restoration activities are completed to enhance the riparian vegetation along approx. 350m of Elk River shoreline.	Develop a plan to restore riparian vegetation, and provide support in the form of materials to the rancher to install fencing to exclude cattle from riparian areas.	Yes	NCC staff collaborated with the Regional District of East Kootenay to develop a restoration plan to construct fish habitat. Fence options were also explored.
				Purchase vegetation and grass seed to complete riparian plantings, and install temporary wildlife exclusion fences to avoid damage to plants from wildlife.	No	
				Establish monitoring plots to measure effectiveness and track recovery of riparian vegetation	No	
	Enhance biodiversity and improve the condition of ungulate winter range and species at risk habitat.	Invasive species are controlled or removed based on the most effective techniques.	High priority invasive species are controlled according to past inventory data, and current populations are reduced or eliminated where possible.	Work with the East Kootenay Invasive Species Council (EKISC) and local contractors to control invasive plants through treatments and monitoring.	Yes	NCC staff collaborated with EKISC to complete invasive plant treatments on the property in year 1.
	Enhance biodiversity and improve the condition of ungulate winter range and species at risk habitat.	Improve habitat for wildlife and species at risk (e.g. Little Brown Myotis, Elk).	Refuse left of the property from previous landowners is removed.	Hire contractor and rent roll off dumpster bin to remove refuse from the property that has been dumped or left by previous landowners.	No	
	Engage partner organizations and the local community to participate in conservation and restoration activities.	Community members participate in restoration activities.	10-15 volunteers participate in planting riparian vegetation.	Partner with local organizations (e.g. Elk River Alliance, Wildsight) to help coordinate local volunteers to complete the vegetation planting, install wildlife exclosures and provide tools for volunteers.	No	



8-457

R.E. Taylor Conservation Property



Land Stewardship Grant 2021-24

YEAR 1 REPORT FORM

HCTF Project Number: 8-457

Please refer to the Land Stewardship Grant Year 1 Reporting Instructions when completing this report.

This report must be completed in conjunction with the Activities and Expenditures Report (spreadsheet) customised for your project based on your proposal. This spreadsheet will be emailed to you.

1. PROJECT INFORMATION

Project/Property Name: R.E. Taylor Conservation Property

Project Leader Name: Alan Peatt, RPBio, FAPB

Name of Organization: Southern Interior Land Trust Society

Date of Report: March 31, 2021

Author of Report (if different than Project Leader): Same

Name of Organization: Same

Contact Information: E: apeatt@siltrust.ca Call/Text: 250-328-4699

2. SUMMARY

Provide a general description of project work completed in Year 1 (500 words max).

In 2020, the Southern Interior Land Trust (SILT) undertook management and maintenance activities at its R.E. Taylor Conservation property near Olalla, BC. The R.E. Taylor Conservation Property is Water Birch woodland located on the banks of Keremeos Creek. Abandoned concrete debris and water main fittings encased in concrete were removed and used to create an artificial winter den for snakes and other wildlife; the existing driveway and parking area was improved to increase public safety; and top and bottom visible safety-rails were added to the boundary fence at five known wildlife crossings. Works were scheduled in late fall to avoid harm to reptiles and nesting birds.

Land Stewardship Grant 2021-24

YEAR 1 REPORT FORM

Project Outreach Activities: Provide information on any outreach activities during the year that directly relate to the project.

SILT did several FaceBook and Instagram posts. Our snake den video (https://youtu.be/WFrF_adjo44) was circulated to all members of the Association of Professional Biology and some snake specialists. Reactions have all been positive. Sharing the den video sparked an exchange of experiences and examples of other artificial dens (typically mitigation for disturbed dens) around the province.

Communicating about HCTF: Provide information on any activities specific to communicating about HCTF undertaken during the year.

See the attached posts and photo report. HCTF is prominently acknowledged in the snake den video.

Media Coverage: Provide a list of any articles or media coverage during the year.

N/A. SILT chose not to broadly advertize the location of its newly constructed snake den.

3. PHOTOS

Include a minimum of three photos as part of your report, attached as separate JPG files. List the filenames below, plus a description of each photo.

Link to den construction video URL: https://youtu.be/WFrF_adjo44

Photo 1 File name and Photo Description: Construct Den Taylor = den being constructed

Photo 2 File name and Photo Description: Taylor Driveway Improvement = driveway being fixed.

Photo 3 File name and Photo Description: Taylor bottom rail at wildlife x-ing.

Photo 4 File name and Photo Description: Planting Taylor disturbed area.

Photo 5 File name and Phot Description: Ortho Taylor with features = Property location image

Land Stewardship Grant 2021-24

YEAR 1 REPORT FORM

4. ADDITIONAL DETAILS

Provide a description of any materials and supplies purchases funded by HCTF that are considered capital assets. See Year 1 Reporting Instructions for information on Capital Assets.


None

Provide any other information you wish to share with HCTF.

See included a December 2020 SILT photo report of Year 1 activities. Home Depot in Westbank donated 50% of the cost of the pipe used in the snake den; that support is also appreciated.

5. SIGNATURE

Certified that the project has been completed as reported and this report is an accurate reflection of project activities and expenditures per the HCTF Grant Agreement.

Proponent Signature	Date	Print Name
	March 31, 2021	Alan Peatt, RPBio, FAPB

6. SUBMIT YOUR GRANT REPORT

- Save this report using the Project # and grant year in the filename. Example: 1-123 Yr 1 LSG Grant Report 2021-24
- Please send your Year 1 Grant Report to Shannon West at shannon.west@hctf.ca
- Your report should include the following:
 - Completed Year 1 Grant Report Form (this document)
 - Completed Year 1 Activities and Expenditures Report
 - Photos as JPG files
 - Copies of any print media articles (or provide links in report)
 - Invoice for next 30% advance, if 50% advance is fully spent.



Figure 1 Snake Den construction



Figure 2 driveway improvement



Figure 3 Bottom Rail at Wildlife crossing

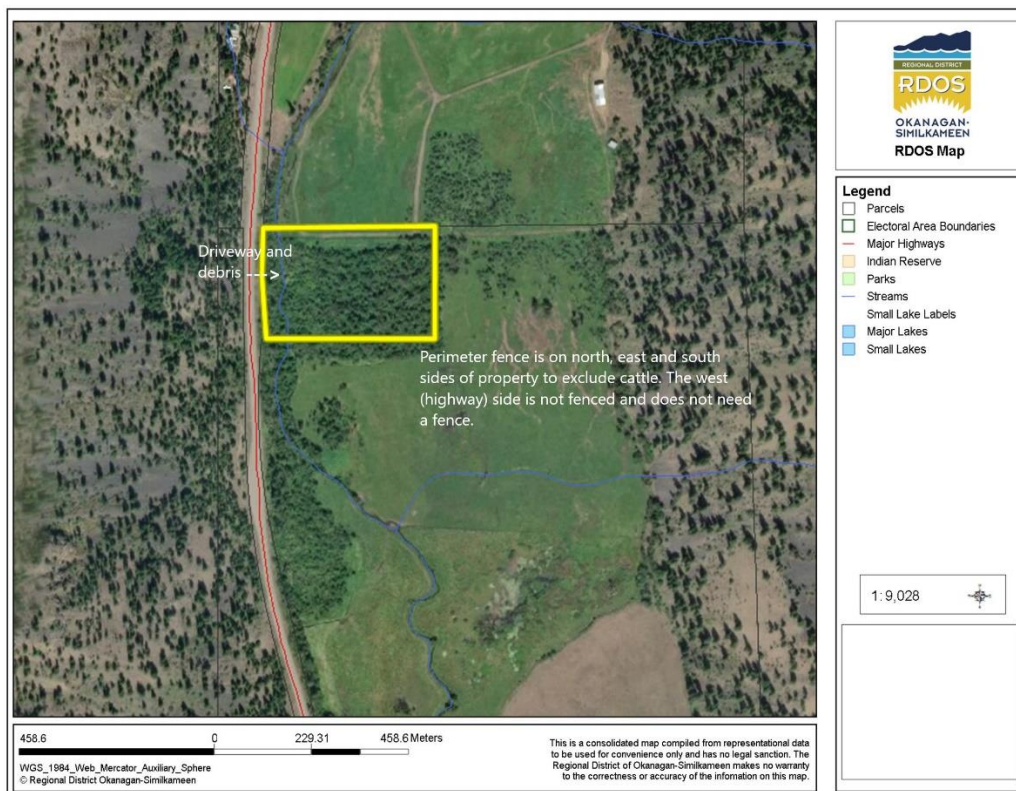


Figure 4 Ortho photo of property features



From Application					Progress Year 1	
Property/Complex Name:	Goal	Objective	Expected Outcome/Performance Indicators by End of Year 3	Activities	Progress on this Activity in Year 1 (Yes/No)	Completed Activity Description
R.E. Taylor Conservation Property	Maintain productive habitat for wildlife	Existing 700 meter-long perimeter fence is effective; known wildlife crossing points are made safe.	700 meters of fence is maintained to exclude cattle from the property; at least one known wildlife crossing of the fence made safer with top and/or bottom rail.	Inspect fence, note areas of concern and wildlife crossing points, purchase supplies and make necessary repairs.	Yes	Installed PVC pipe railings over barbed wire at five wildlife crossing points. Raised lower wire and re-stapled as necessary to suit wildlife friendly fence standards at each crossing.
				Monitor fence effectiveness by inspecting for signs of cattle trespass, liaise with adjacent owners; maintain fence.	No	Cattle use occurs in winter; will be monitored in 2021.
	Maintain productive habitat for wildlife	Plant native plants and grass seed areas disturbed by debris cleanup & parking area improvement.	A target of 20 native shrubs are planted in disturbed areas and are surviving	Clean-up and dispose of litter and debris (costed in contractor work below); plan for planting native species in disturbed areas	Yes	Debris removed and used in an artificial snake den constructed on site. Costed in driveway improvements.
				Purchase native plants and conduct planting and seeding	Yes	85 native shrubs planted in seeded disturbed area
				Monitor plant survival and replace any dead plants	No	To be undertaken in 2021
	Improve vehicle parking to increase visitor safety	2-3 vehicle parking and a safe turning space constructed	Visitors no longer have to back their vehicles into Highway 3A traffic to exit the property	Supervise contractor; improve driveway and construct parking area (cost includes contractor machine time & and clean fill)	Yes	Parking area with turning space constructed; artificial snake den built from debris clean up during driveway improvement.
	Increase public awareness, use and care of the property	Community members participate in a biodiversity survey	Six or more volunteers participate in a biodiversity survey (bioblitz); results are reported publicly	Plan and conduct a spring biodiversity survey (bioblitz) involving local experts, the interested public and secondary students	No	To be undertaken in 2021 (COVID willing)
				Organize data and report (website/newsletter) on results	No	To be undertaken in 2021
Increase public awareness, use and care of the property	Prepare a brief management statement using current information.	A brief management statement is completed and available for use by current and future SILT officials.	Liaise with adjoining property owners and others about the Taylor property, management planning, and mutual goals.	No	To be undertaken in 2021	
			Write a management statement to document known resource values and to guide SILT's future management of the property and ongoing community involvement.	No	To be undertaken in 2021.	