ANNUAL REPORT 2021-22





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Introduction

The Lillooet Regional Invasive Species Society (LRISS) continues to deliver the 3 programs: (1) Coordination, Collaboration & Planning, (2) Field and (3) Outreach & Education. This is our 10th season of operation. The Executive Director hired an assistant, and 8 Outreach & Field Technicians to assist with the delivery of the programs for the summer season. One contractor, the Xaxlí'p Community Forest Corporation, was hired to treat BC Hydro right of ways and burdock along Ministry of Transportation roads in Fountain Valley.

It is important to note that the global pandemic and significant wildfires in our region created many challenges. Overall, our organization adapted to constantly changing conditions, kept our staff safe and accomplished a productive program.





Programs

1. Coordination, Collaboration & Planning

LRISS remains committed to collaboration and partnerships. Our deliverables were met for this program. They included:

•Collaboration with all existing partners: Appendix 1 is a list of our partners and the projects completed.

•Seek new partnerships and apply for diverse funding: LRISS has 4 new partnerships with the Lillooet Community Connect and Innovation Hub in addition to the Miyazaki House, Lillooet SWIMS and Lillooet Wild. LRISS also signed a memorandum of understanding with our St'át'imc partners (see full explanation below).

•Program Development & Planning: This is an ongoing function to support all programs.

•Communication of program results and efficacy: The 2020 LRISS Annual Report was prepared and shared with all partners including SLRD. A PowerPoint summary was shared at our Annual General Meeting (AGM).

•Communicate news and information to membership via social media and website: As described below in outreach, we post 3 times a week and send out newsletter articles monthly. We have also started a monthly online newsletter.

Top Photo: Lillooet Innovative Hub Opening. Bottom Photo: LRISS used the Miyazaki House for office space this summer.

1.1 St'át'imc Memorandum of Understanding

On October 19, LRISS signed a Memorandum of Understanding (MOU) with the St'át'imc Chiefs Council-Land and Heritage Department and St'át'imc Government Services. There are 3 main purposes of this MOU:

- 1.1 The Parties will work together to address the best approach in dealing with invasive species within the LRISS operational area within the St'át'imc territory.
- 1.2 The Parties will establish a cooperative relationship amongst each other based on principles of trust, honesty, and mutual respect.
- 1.3 The Parties will ensure effective, clear, and respectful communication between the parties on the various issues including but not limited to: project management, funding opportunities / community engagement / presentations / information sharing.



This MOU is an important step forward in our relationship working together. The document provides future staff and Board members of all Parties a record of our shared values to achieve our purposes in addition to an information sharing agreement. The photos above show the key signatories: Bobby Watkinson, Administrator for St'át'imc Government Services, Art Adolph from St'át'imc Chiefs Council (SCC), Sue Senger, LRISS Chair and Bill Spencer, LRISS Treasurer. We are very grateful to Bill Spencer and Lenora Starr, SCC, for all of their hours spent developing and discussing this MOU (lower left photo).

1.2 Covid-19 Planning & Safety

LRISS continued with COVID-19 safety protocols as implemented in 2020. The following list shows our activities & safety protocols in place to keep the staff & public safe in the ongoing pandemic:

- Review our Occupational Health & Safety Plan to ensure exposure and COVID protocols are consistent with BC Public Health Orders and recommendations.
- Update our Business Continuity Plan: The goal of this plan is to ensure that operations will continue if the Executive Director or staff were exposed or became ill from COVID-19.

- Review and train staff on the following procedural bulletins for safety: COVID-19 101, Vehicle Use & Disinfecting, Covid Case Procedures, Mask Use and Working from Home.
- Purchase Personal Protective Equipment and disinfecting supplies for all activities.
- Review of Worksafe Guidelines and Provincial Health Officer Orders frequently to ensure LRISS is compliant with COVID-19 safety procedures.



Photo:LRISS Staff L to R: Ally Soucy, James Kerslake, Paige Flann, Annette Bernier & Anizah Nadeem. Packaging tourism & wildfire information into bags at the Miyazaki house and following masking protocols.

1.3 Annual Planning & Governance

Annual Planning Meeting & Priority Ranking tool: LRISS will hold a planning meeting in 2022 as we did in 2021 (March 30). This year, we have hired a Geographic Information System's specialist to complete our Priority Ranking tool to assist us with field planning. As in other regions, LRISS does not have enough funding to treat all the known infestations in the region. This mapping tool will help us rank our invasive plant sites as a first step to planning our field season activities. We hosted a meeting to gather input for the development of this tool on February 10th. Funders and stakeholders were invited to attend. The tool will create a recommended list of sites, but they will be reviewed before finalized for the 2022 treatment program. The goal of the annual planning meeting is to receive input from the representatives and incorporate this into our field activities for the upcoming season.

Annual General Meeting: Our Annual General Meeting and workshop was held on May 4, 2021. It was held online again using Zoom. We gave a PowerPoint about 2020 activities. We had 2 speakers this year: Lisa Scott from the Okanagan and Similkameen Invasive Species Society talking about "Invasive Species & Climate Change" and Louise Pederson, the Executive Director for the Outdoor Recreation Council of BC. The annual report is on our website.

Invasive Species Updates: The Executive Director attends annual conferences to stay current with invasive management tools and research in addition to connecting with funders and regional committee colleagues. Our in-person field tour for the Regional Invasive Species Organizations was postponed again this year. In its place, for the second year, an online forum was held on November 23 & 24. It included 4 workshops: Eliciting Good Program Participant Feedback, Business Continuity: Planning for Emergencies and other Transitions, Advanced Zoom for Engagement & Interaction and Managing Eco-Grief and Building Resilience for Environmental Professionals. LRISS also attended several online conferences: Citizen Science by the Washington Invasive Species Council and the Everything in Vegetation Management Forum hosted by the Integrated Vegetation Management Association of BC. There continues to be a wide variety of webinars and conferences held throughout the year showcasing research and new information relevant to our program activities.



2. Field Program

The LRISS field program was delivered by 8 LRISS Staff Field & Outreach technicians and 1 contractor: Xaxlí'p Community Forest Corporation (XCFC). Thanks to additional SLRD funding an assistant for the Executive Director was also hired to assist in the field, staff management and outreach activities. There were 3 main activities in our field program: 1. Invasive Plant removal, 2. Rec Sites & Trail work, and 3. Aquatic Invasive Mussel Sampling.

2.1 Invasive Plant Program

The invasive plant removal program is composed of surveys, mechanical treatment and monitoring. A site list is prepared annually for the treatment program using the priority plant species list and a review of watersheds. This year, one of our main contractors who treats the majority of our sites, was unable to take on any of our work. They lost a key staff person and was unable to hire a qualified replacement. The LRISS staff completed most of the work this year. The staff also continued to inventory local hiking trails. A summary of the work completed is found in Table 1 below.

Table 1. Summary of Invasive Plant Program Results

	Sites with Tre				Treated			
		Hectares of	Sites	Hectares	Zero	Sites	Hectares	Sites
Funder	New Sites	New Sites	Surveyed	Surveyed	Hectares	Treated	Treated	Monitored
MoFLNRO	109	10.7113	157	28.8532	61	125	7.003	0
BC Hydro	0	0	48	10.6439	20	25	6.511	10
MOTI	3	0.523	164	48.2287	53	100	27.8985	14
First Nation Reserve	0	0	4	0.609	1	3	0.459	0
Parks	0	0	15	11.0302	5	4	0.0602	0
Private	0	0	9	0.6574	10	4	0.6322	0
Railway	0	0	4	0.17	2	2	0.0008	0
Municipality Owned	0	0	3	0.1501	1	2	0.0751	0
Totals	112	11.2343	404	100.3425	153	265	42.6398	24

Despite the continually changing access due to wildfires, LRISS accomplished our goals for treatment in 2021. Over a quarter of our original site list was not accessible because they were in the McKay Creek Wildfire area. We had to shift and reschedule staff on a weekly (and sometimes daily) basis to treat other areas. Road access and smoke made it necessary to reschedule so often. Table 2 shows a comparison of the work accomplished in 2020 and we increased our output in all categories except hectares treated. In 2021, the sites we treated had less overall area than the previous year.

	2020	2021
Sites Created (new)	42	112
New Ha's	2.2545	11.2343
Total Sites Surveyed	374	404
Total Ha's Surveyed	71.5873	100.3425
Sites Surveyed with 0 Ha's	145	153
Total Mech Sites Treated	209	265
Total Ha's Treated	47.129	42.6398

Table 2: Field Work Completed 2020-21

A few notes about the categories reported on in Table 1 and 2 are necessary to clarify what was accomplished. New sites represent what was found during inventory of roads and trails. The hectares of the new sites is the total footprint of those sites. It does not represent solid infestations. The plants found within a site have different densities and those are recorded in the site data collection for new sites and sites

surveyed. The Invasive Alien Plant Program (IAPP) has designated site density and distribution codes to monitor the infestation from year to year. Even if the site size is not getting smaller in overall hectares, this information can tell you whether or not a treatment is working on a site. If a site is getting less dense with plants, this may give an indication that the site treatment is effective. Please refer to Appendix 3 for the IAPP codes.

Total Sites surveyed indicates the sites that have already been established and data collected in previous years. The hectares surveyed show the total hectares that the sites cover.

A LRISS summer crew was also able to survey and treat remote yellow flag iris sites on Seton Lake. The sites can only be accessed via boat. They had not been checked since 2016. This year we had the budget to rent a boat that was able to safely transport staff and equipment. Seton Lake is a large lake subject to variable water and weather conditions. A larger boat and engine is needed.

Priority Invasive Plants: Three new invasive plant species found in 2019 continue to be treated: Wild Parsnip *(Pastina sativa L.).*, Puncturevine *(Tribulus terrestris)* and Wood Sage *(Salvia nemorosa L.).* See photos below. Puncturevine Photo Howard F. Schwartz, Colorado State University, Bugwood.org.



These sites are the top priority for LRISS. Appendix 2 has our full priority list of plant species with definitions.

Wild Parsnip continues to be the highest concern of these 3 plants because of the harm it can pose to humans. It is located very close to the T'it'q'et community (on Reserve) where people live. This plant contains toxic compounds called furanocoumarins. These compounds can cause serious rashes, burns or blisters to skin when exposed the sap and then sunlight. The roots of the Wild Parsnip (the non-cultivated form) contain the same compound, so it is not recommended for consumption. If livestock feed on it, the compounds can inhibit weigh gain and negatively affect fertility. In collaboration with the T'it'q'et Land Committee, LRISS coordinated treatment for 2021. Chief & Council, upon the recommendation of the Land Committee recommended that, if possible, herbicides could be used on this plant. LRISS also received approval from them to collaborate with the Sea to Sky Invasive Species Council (SSISC) field crews to carry out field treatments including herbicide application. SSISC Field crews are certified herbicide applicators and have experience working around wetlands.



Photo by SSISC Staff: Wild Parsnip mechanical treatment, May 2021

Site treatment took place on 3 separate days between May and July of this year. Only 1 of these days had the right conditions to use a herbicide. The other 2 days were spent mechanically treating the plants by hand pulling and digging. On May 26, the SSISC crew established the Pesticide Free Zone around the wetland open water and wet soil areas (using flagging tape). These areas were targeted

first for mechanical treatment to help reduce the number of plants that would grow to an adult phase with viable seed heads. A detailed summary of the treatment is found in Appendix 4.

Puncturevine Inventory: Puncturevine (*Tribulus terrestris*) continues to be treated by the Seventh Day Adventist Church on their Fountainview Academy property. They hosted LRISS Executive Director, Jacquie Rasmussen, and Thompson Nicola Regional District's Invasive Plant Specialist, Coleen Hougen, on a field tour on August 25, 2021. They showed us the sites where they are actively pulling this invasive plant. They have mapped the infestations on the property each year to track the infestation on their property. Last year puncturevine was found on the east side of Highway 12 for the first time. As a result of this discovery and the mapping, we felt it was necessary to do an inventory of Highway 12 near their property. Coleen Hougen and her summer student did a portion of Highway 12 and then later LRISS continued this inventory further. The inventory was done on foot along the highway right of way. No puncturevine was found but monitoring of the highway will need to be done next year as well. The photos below show what part of the highway we covered during the inventory. The river is the Fraser, and the site number (green diamond) is 346912.



The wood or woodland sage infestation on Highway 99N was hand pulled by LRISS staff on Highway 99 right of way. There is a large infestation, however, in the adjacent field owned and operated by Blue Goose Cattle Company. They have changed over managers of this property and LRISS has only just made contact with them once. Discussions with the manager will need to take place about this infestation so we can collaborate on the removal of this species from both the highway and field locations. Last year, this species was downgraded from Eradicate to Contain.



2.2 Rec Sites & Trails

LRISS continues to survey and treat recreation sites and trails in our region. Table 3 is a summary of work that was completed in 2021. We planned to inventory more trails but due to wildfire and grizzly bears, it was not possible to access some sites for safety reasons. We treated a total area over 9.75 hectares. We inventoried 16.5 kilometres of trail. During our visits to the recreation sites, we connected with the contract Hosts and campers to give them invasive species information.

Table 3: Summary of Rec Site & Trail Work 2021

Trail / Rec Site Name	Activity by Crews	Area	Invasive Plants
Gun Creek Hydro Rec Site	Existing Sites – Survey & Removal	2.2304 ha	Spotted & Diffuse Knapweed, Yellow Toadflax
Carol Lake Rec Site	Existing Sites – Survey & Removal	0.036 ha	Hoary Alyssum, Burdock
Rogers Creek Rec Site	Existing Sites – Survey & Removal	0.0005 ha	St. John's Wort
Pix Falls Trail	Existing Sites – Survey only	0 ha	Diffuse & Spotted Knapweed (none found)
Highschool Trail	Inventory & Removal	0.15 ha	Burdock
Canal Walk	Existing Site Survey, Review of Species	5.3561 ha	Diffuse & Spotted Knapweed, Dalmatian Toadflax
Red Rock Trail	Inventory & Treatment	4.2 km 1.7482 ha	Diffuse Knapweed, Burdock, Canada Thistle, Sulphur Cinquefoil
Pavilion Mountain Trail	Inventory & Treatment	10.5 km	Oxeye Daisy, Spotted Knapweed
Seton Ridge Trail	Inventory	1.8 km	Orange Hawkweed, Oxeye Daisy

2.2 Invasive Mussel Sampling

LRISS was awarded a grant from the Habitat Conservation Trust Foundation to sample 3 lakes for invasive mussels. This sampling is part of the BC Ministry of Environment & Climate Change Mussel Defence Program to keep BC free of invasive mussels. LRISS has successfully received funding for 5 years to sample water bodies for Zebra & Quagga mussels (*Dreissena polymorpha & D. rostriformis bugensis*). We are happy to report that no invasive mussels have been detected in any of the water bodies or in BC to date. The list of waterbodies is below in Table 4.

Table 4. Waterbodies sampled for Invasive Mussels.

Waterbody name	Sample site name/description	Months sampled	Total plankton samples
Anderson Lake	East end of Lake	July x2, August	3
Pavilion Lake	Public Boat Launch	July x2, August	3
Seton Lake	Public Dock & Boat Launch	June, July x2, August	4
		Total proposed samples	10





Photos taken by J. Rasmussen. LRISS Summer Staff Paige Flann & Anizah Nadeem collecting samples at Seton Lake.

3. Outreach & Education Program

The LRISS outreach program expanded compared to 2021 because of partnerships and relaxed Covid rules. Table 5 is a summary of our outreach statistics and description of our activities are in the sections below.

Our focus this year was to connect with tourists and recreationalists. We were anticipating a rise in visitor numbers from outside our region. We observed a significant rise in visitors to our region from the lower mainland after people were mandated to stay home during the first phases of the global pandemic. The traffic counters on the Hurley Forest Service Road indicated that traffic numbers from September of 2018 rose from approximately 3000 to 19000 in the same month (September) in 2019. Along with the Bridge River Valley Community Association (BRVCA) & Tourism Lillooet, LRISS wanted to be prepared for these numbers. We knew it was important to welcome visitors to the region but also help them stay safe and "#recreateresponsibly".



LRISS staff photos: Left – Annette Bernier, Sue James & Paige Flann with BRVCA signs. Right – Kathryn Young, Debbie Demare & Jacquie Rasmussen at Highway 40 visitor kiosk.

	Number	
Туре	Posts	Total Reach
Event	26	2540
Facebook	178	77954
Instagram	169	19602
LinkedIn	154	11930
Newsletter	12	25815
Pinterest	138	1730
Presentation	9	99
Print Ad	48	52800
Print Resource	15	758
Training	5	42
Twitter	175	25669
Website	20	5385
Grand Total	948	224322

Table 5. Summary of Outreach Activity & Reach.

LRISS assisted the BRVCA to set up weekly kiosks to welcome people into the region (see right photo above). There were 2 roadside kiosks: one along Highway 40 near the turn-off to Marshall Lake and the other along the Hurley Road. Staff from both organizations talked to people, gave them printed resources and asked them survey questions. The handout was created using one designed by the Kootenay Tourism Association. Permission was granted for both BRVCA and Tourism Lillooet to make edits and add their branding. The BRVCA used their main logo to create a new one with the tag line "#RecreateResponsibly". The goals of the kiosk were to welcome visitor but also educate them to be responsible. Educational information was given about bear safety, invasive species and local resources like food, fuel and accommodation. Appendix 5 has the one pagers that were designed and handed out.

Between the BRVCA and LRISS, 839 surveys were completed. We tracked the following information:

- Where did the person reside?
- Where is your full time residence?
- If not in the BRV, where is your full time residence?
- Is it your first time to the Bridge River?
- How long will you be staying?
- Where are you staying?

- What outdoor recreation activities will you be doing?
- Are you carrying bear spray?
- Have you taken bear safety training?
- Tracked resources given and what topics were discussed: Bear Aware, Invasive Species, Trail Locations, Recreation activities, other.

The key information that LRISS was interested in tracking was where the people were coming from and what recreational activities they were doing. This gives us a sense of what regions they could be bringing Invasives from and how they could be spreading them. Tables 6 & 7 show where people's full time residence are and what type of recreation they were doing.

Tables 6&7: Survey results showing percentage of those surveyed: Full time residents & Recreational Activities

Residence	Percentage
Vancouver Area	38
Sea to Sky Corridor	31
Local	15
Other	7
Fraser Valley	4
Thompson - Cariboo	4
Out of Prov	1

200 C	
Recreation Type	Percentage
Watersports	20
Mountain Biking	20
Motorbike - ATV	18
Other	17
Hiking	12
Fishing	9
Hunting	2
Back Country	1
Horseback Riding	1

The highest percentage of people were coming from the Vancouver area (38%). If you add this with the Fraser Valley, the percentage rises to 42%. The next highest came from the Sea to Sky Corridor: 31%. Fifteen percent of those surveyed were local and a handful of people living in the Thompson-Cariboo, out of province and "other". This data suggests that new invasive species would most likely be spread from the Sea to Sky, Metro Vancouver and Fraser Valley areas. We already work with our neighbouring organizations so it will be important to share these results with them as well.

Mountain Biking and Watersports (included boating) tied as the highest recreational activity, both at 20 %. Motorbiking and ATV was the next highest at 18%. Hiking and "other" were the next highest percentage. Other included working on projects on summer property and camping. This information helps us to target our outreach messages. This data indicates that we should reach out to Mountain Bikers and those engaging in water sports as our priority.

3.1 Events, Presentations & Training

LRISS has participated in or delivered 40 events, presentations, and training. This is significantly more than last year. There are 2 main reasons for the increase. First, the ability to deliver online has allowed LRISS to connect with partners and groups easily. Second, there were events that took place in the summer that were in-person and LRISS staff could safely participate.

The LRISS Summer staff participated in youth events in July and August. They were invited to the Lillooet Library Summer Reading Club as well as SWIMS events at the Lillooet Rec Centre. Many of the St'át'imc communities' summer youth camps came to the library events. The photo above shows our staff leading a drawing activity for the Library Club.

LRISS also partnered with the District of Lillooet in early July to give out Wildfire Information. We set up kiosks at the Post office, gas station and traveled to campgrounds to hand out bags of information. The bags included tourist information, invasive species resources and Wildfire communications from the District of Lillooet's Emergency Operations Centre.

Four training sessions have occurred, this fiscal year: 2 for Talisker Mining staff, one for the Xwisten Heritage Crews and one for the St'át'imc Adult Learning Centre, Forestry course. A Pesticide Applicator's course was delivered in January 2022 for the St'át'imc communities. This course was organized by LRISS funding partners: Ministry of Forests, Lands & Natural Resource Operations & Rural Development (MoFLNRORD) and Ministry of Transportation and Infrastructure (MOTI). BC Hydro has provided funding for the course as well. This intent of this course is to provide staff with the knowledge they need to review projects involving herbicides. LRISS has received feedback over the years from communities that they were lacking this information. The course will also provide participants with a certificate to apply on jobs as certified herbicide applicators. They will be required to take an exam to become certified.

Right photo: LRISS summer staff Emma Sneep leads the Library club youth to draw a native and invasive plant.

3.2 Resources

LRISS not only purchases resources from Provincial programs but we create our own for local programs. This year, we have distributed over 750 print resources. The resources we purchase include wallet cards (business card size accordion brochures) for Plantwise and Aquatic Invasives. These were included in the full tourism/recreation bags and training packages. LRISS has produced an invasive fish postcard (See below) and an invasive plant rack card, and more were printed for this outreach season.



There was a new resource produced this year in collaboration with the BRVCA, District of Lillooet, Tourism Lillooet & the Lillooet Naturalist. It is the Tourism/Recreation – #responsiblerecreation handout. It is attached at the end of the report in Appendix 5. Suzanne Denbak was instrumental in coordinating the design and development of these hand-outs. The front was virtually the same, but the back was different for BRVCA and Lillooet. We are thankful to the Kootenay Rockies Tourism for allowing us to use their design and make a few alterations for our region (https://www.kootenayrockies.com/responsible-travel/).

3.3 Digital Resources

Electronic resources include our website and 5 social media channels: Facebook, Twitter, Instagram, LinkedIn and Pinterest. We consistently post on social media three times a week. There were 814 posts generated with a reach of 136885. Facebook continues to have the greatest reach of all of our social media platforms. We added new invasive species descriptions to our website.

For the entire month of February, LRISS created a social media campaign to raise awareness of species at risk in our region. We received new funding from Environment & Climate Change Canada (ECCC) related to key Canadian habitats where species at risk live. The Dry Interior is one of these habitats and is found in our region. Invasive species are recognized as one of the threats to species at risk habitat and this qualified LRISS to apply for funding. All of our programs have benefited from this new funding. There are 2 posts shown below from our campaign. A short video highlighting the Dry Interior was also created and posted to all of our channels.

New to digital resources this year are monthly newsletters. Using Mail Chimp, the newsletter has an article, resources, and partner feature. We also have a feature app in our newsletter. All our previous newsletters and articles can be found on our website (https://lriss.ca/).



3.4 Advertising Features

Advertising includes features for newsletters and print media like the newspaper and tourism guides. LRISS continues to develop monthly feature articles for our partners who, in turn, put them in their newsletters and social media. The Gold Country trail map will be published this year with our PlayCleanGo ad (see below). The same design appears weekly in the local paper, the Bridge River Lillooet News. The Lillooet Naturalists sponsor us to publish 4 Invasive Spotlights in the summer months in the paper (see Hoary Cress example below). The newspaper has been running themed advertising targeting specific audiences. The "nasty invasive plant" ad below was submitted for a farming and local food theme. Since April, there have been 48 ad features published with a reach of 52800.

Financial Reporting

LRISS tracks finances between April 1 and March 31 as our fiscal year. The following sections give a summary of our financial information. All bookkeeping is completed using the Sage Accounting System. We hire an accounting firm for bookkeeping and tax filing. Please refer to Appendix 6 for financial reports showing details of revenue and expenditures.

LRISS receives in-kind funding from our partners. This includes equipment, staff time and discounts. Appendix 7 shows the full in-kind summary. The total for this year was \$7365. It was higher than last year due to the amount of time the Bridge River Valley Community Association put into volunteering at the information kiosks on the Hurley Road.



Photos: Examples of Advertisements

1. Revenue

LRISS secured \$197,232 of funding for our programming. This is an increase over last year by \$49,594. The increase of funding primarily came from the Squamish Lillooet Regional District, Environment Canada and Climate Change and Canada Summer Jobs.

An extra \$10,000 was granted to LRISS in this fiscal year by the Squamish Lillooet Regional District to hire an assistant for the Executive Director. The addition of this position to the LRISS team has been extremely valuable. Not only have new activities been accomplished, but this position creates depth in or organization. When the Executive Director is unavailable, the assistant continues to be mentored to step into meetings and staff supervision. We intend to continue to seek funding for this position and will explore multiple opportunities.

Sources of Revenue	Amount	
BC Community Gaming Grant	\$11,000	
BC Hydro	\$5,000	
Canada Summer Jobs	\$29,885	
Environment Climate Change Canada	\$25,000	
GST Rebate	\$1680	
Habitat Conservation Trust Foundation	\$4760	
Lillooet Naturalist Society	\$1,000	
Ministry of Forests, Lands & Natural Resource Operations & Rural Development	\$42,700	
Ministry of Transportation & Infrastructure	\$30,000	
Squamish Lillooet Regional District	\$42,142	
Deferred Revenue from Previous Fiscal year	\$4065	
Total Revenue	\$197,232	

Table 8. Overview of LRISS Funding Revenue 2021-22

2. Expenditures

The total expenditures for 2021-22 fiscal year is \$180,520.72. The chart below shows a summary of the expenses. The top three expenditures were: Education & Awareness, Treatment of invasive plants and Coordination - Planning. Planning and Equipment cost more this year due to vehicle rental and the constant need to change staff schedules due to the McKay Creek Wildifire. The Data Contract expense hired a GIS consultant to develop the Priority Ranking Tool.

Chart 1. Summary of Expenses 2021-22



Acknowledgements

We are extremely grateful for the volunteer Board of Directors that oversees the operation of LRISS. Our Board Members include:

- Sue Senger, Chair ٠
- Mandi Rogers, Vice-Chair •
- Bill Spencer, Treasurer-Secretary •
- Gerald Michel, Director ٠
- Matt Manuel, Director •
- Travis Peters, Director ٠

LRISS also like to thank all of our partners (see Appendix 1) and their contributions to our program.

Appendix 1. List of Partnerships and Activities

Partner	Project - Activity
Lillooet Naturalist Society	Funding, In-kind support, Invasive plant removal on Trails, Newspaper Features
Lillooet Agriculture & Food Society	Sharing of resources Agreement, Monthly article shared.
Bridge River Valley Community Association	Weekly Roadside outreach: #ResponsibleRecreation, Invasive Outreach Historic Haylmore Site, Events, Staff Training, Monthly article shared.
Lillooet Volunteer Connect & Community Connect Hub	Support funding applications, meetings, share social media posts. LRISS is a member of the HUB Advisory Committee
SWIMS – Society for Wellness, Instruction & Mobility through Swimming	LRISS collaborated with youth summer fun days: outreach teaching about invasive aquatic invasive species like invasive mussels.
Miyazaki House Society	Share outreach, office space, remove invasives from property, support events
Lillooet Wild	Promotion of conservation of species. Social Media campaign.
Lillooet Off Road Cycling Society	Partnership Agreement: Sharing of resources, Project support, Monthly articles shared.
Lillooet Livestock Association	Member on LRISS Board, Producer outreach, Monthly article shared.
Lillooet Rod & Gun Club	Monthly article shared.
Xwísten	Councillor on LRISS Board, monthly article shared, Training of Heritage Crews
P'egp'ig'lha Council - T'it'q'et	Project Collaboration, Crew Training for Guardianship program, Support to remove Wild Parsnip Infestation, Monthly article shared.
Xaxli'p Community Forest Corporation	Funding application support, Monthly article shared, Crew contract.
Tsal'alh	Monthly article shared, Project Collaboration.
Sekw'el'was – Splitrock Environmental	Funding application support, Project Collaboration, Monthly article shared.
Ts'kw'aylaxw	Monthly article shared.
Lillooet Chamber of Commerce	Member, Share updates at monthly meetings.
District of Lillooet	Project Collaboration. Home Kit Delivery
Tyax Wilderness Lodge	Share social media – promote through our channels
Tyax Adventures	Joint outreach delivery to Mountain Bikers: PlayCleanGo, Share social media.
Winners Edge Sporting Store	Social Media sharing
TimberMart, Feed & Garden Centre	Social Media sharing, public outreach for garden invasives

Squamish Lillooet Regional District	Funding Partner for all programs
Ministry of Forests, Lands & Natural Resource Operations	Funding Partner for all programs
Ministry of Transportation & Infrastructure	Funding Partner for Field program
BC Hydro	Funding, Workshop training support for St'at'imc
BC Community Gaming	Funding Partner for Outreach & Education Program
Habitat Conservation Trust Foundation	Funding Partner for Aquatic Invasive Mussel sampling
Ministry of Environment & Climate Change Strategy	Funding and project partner for aquatic invasives
Environment Climate Change Canada	Funding, Information about species at risk
Other Regional Invasive Species Organizations including Sea to Sky Invasive Species Council	Invasive Site reconnaissance on borders, outreach materials collaboration, collaborative research on mapping and human resources programs.

Appendix 2. LRISS 2021 Priority Plant Species & Categories

LATIN_NAME	COMMON_NAME	LRISS Priority
Blueweed	Echium vulgare	2-Eradicate
Common bugloss	Anchusa officinalis	2-Eradicate
Cypress spurge	Euphorbia cyparissias	2-Eradicate
Hoary cress	Cardaria draba	2-Eradicate
Leafy spurge	Euphorbia esula	2-Eradicate
Puncturevine	Tribulus terrestris	2-Eradicate
Purple loosestrife	Lythrum salicaria	2-Eradicate
Wild Parsnip	Pastinaca sativa	2-Eradicate
Yellow iris	Iris pseudachorus	2-Eradicate
Baby's breath	Gypsophila paniculata	3-Contain
Common tansy	Tanacetum vulgare	3-Contain
Dame's rocket	Hesperis matronalis	3-Contain
Himalayan blackberry	Rubus armeniacus	3-Contain
Hoary alyssum	Berteroa incana	3-Contain
Hound's-tongue	Cynoglossum officinale	3-Contain
Japanese knotweed	Fallopia japonica	3-Contain
Nodding thistle	Carduus nutans	3-Contain
Orange hawkweed	Hieracium aurantiacum	3-Contain
Perennial sow thistle	Sonchus arvensis	3-Contain
Scentless chamomile	Matricaria perforata	3-Contain
St. John's wort/Saint John's wort/	Hypericum perforatum	3-Contain
Sulphur cinquefoil	Potentilla recta	3-Contain
Tall hawkweed	Hieracium piloselloides	3-Contain
Wood sage	Salvia nemorsa	3-Contain
Yellow hawkweed	Hieracium pratense	3-Contain
Yellow/common toadflax	Linaria vulgaris	3-Contain
Burdock species	Arctium spp	4-Strategic Control
Canada thistle	Cirsium arvense	4-Strategic Control
Chicory	Cichorium intybus	4-Strategic Control
Dalmatian toadflax	Linaria dalmatica	4-Strategic Control
Diffuse knapweed	Centaurea diffusa	4-Strategic Control
Dodder	Cuscuta spp.	4-Strategic Control
Knapweed species	Centaurea spp.	4-Strategic Control
Oxeye daisy	Leucanthemum vulgare	4-Strategic Control
Spotted knapweed	Centaurea biebersteinii	4-Strategic Control

Categories of Invasive Plant for Prioritization

Criteria for LRISS

Based on the Sea to Sky's criteria with some changes to management approach.

Priority	Category	Definition	Management Approach
1	Prevention Watchlist	These species are not yet found in the region, but could be found in neighbouring areas or are considered likely to arrive soon.	Alert or Watchlist species, focus on education & awareness with the goal of prevention. If prevention fails, and these species are detected where they were previously not known to occur, the goal is immediate eradication following an EDRR protocol (<i>Note: LRISS will be developing an EDRR protocol</i>).
2	Eradicate	These species exist in the region, but with very limited distribution. Eradication is feasible.	Eradication is the goal. These species are the highest priority for planned annual control programs.
3	Contain	These species are abundant in certain portions of the region, but have not yet infested all potential habitats.	Containment to the current location and/or distribution. Preventing or reducing access to areas with invasive species infestations is also a strategy employed in containment. Treatments would generally only occur within the containment boundary if sensitive sites or unique resources were at risk.
4	Strategic Control	These are widespread species that are beyond landscape-level control and/or have relatively low impact.	The goal of management efforts for these species is to protect site-specific values or assets. Land managers may choose to treat these species at sites they deem valuable to protect (e.g. wildlife habitat, corridors of spread, agricultural land etc.) based on specific land management objectives. Some of these species have biological control agents available.
5	No Action	These are widespread species, where site-scale control is ineffective or futile; and/or these species have relatively low impact. Lost causes.	Not included in control programs. Education only (e.g. do not plant in gardens).
6	Insufficient Information	There is insufficient information for these species on their distribution, impacts, potential for spread and/or feasibility of control. Not enough information to assign a management category.	Carry out inventory if required, monitor known locations, and/or access more information from other regions.

Appendix 3. IAPP Density & Distribution Codes

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Distribution Code			
Code	Reference	Description	
1	•	Rare individual, a single occurrence	
2	••••	Few sporadically occurring individuals	
3	₩	Single patch or clump of a species	
4	•••••••••••••••••••••••••••••••••••••••	Several sporadically occurring individuals	
5	₩ ₩	A few patches or clumps of a species	
6	** ** **	Several well-spaced patches or clumps of a species	
7		Continuous uniform occurrence of well- spaced individuals	
8		Continuous occurrence of a species with a few gaps in the distribution	
9		Continuous dense occurrence of a species	

Some commonly used codes in IAPP:

Density Code			
Code	de Reference Description		
1	Low	\leq 1 plant/m ²	
2	Medium	2-5 plants/m ²	
3	High 6-10 plants/m		
4	Dense	> 10 plants/m ²	

	Jurisdiction Codes
MFR	Ministry of Forests and Range
AH	Alaska Highway
HYDR	BC Hydro
BCR	BC Rail
BCTC	British Columbia Transmission Corp.
BNSF	Burlington Northern Santa Fe
CNR	CN Rail
CPR	CP Rail
DND	Department of National Defense
GL	Grazing Lease
FN	First Nations Reserves
MN	Mining Companies
MOT	Ministry of Transportation and Infrastructure
MOE	Ministry of Environment - except Provincial Parks
MOP	Municipality owned land
PIPE	Oil and Gas Companies
PNG	Pacific Northern Gas
PCAN	Parks Canada
Р	Private Land
PP	Provincial Parks
MRD	Regional District owned land
TEL	Telus
TER	Terasen Gas Inc.
TRP	TransCanada Pipelines
WE	Westcoast Energy Inc.

* indicates mandatory field - this form may be used for 2 sites, with their invasive plant surveys, and site images (if taken).

Appendix 4. Wild Parsnip Treatment Summary 2021

April 15 & May 20 Site Visits

Jacquie Rasmussen, Executive Director of LRISS, visited the site to look at the growth of the plants on April 15 and May 20th. This information and photographs were used to evaluate when we should be treating the site and inform the Sea to Sky Invasive Species Council about the site conditions for herbicide treatment.

Update May 26, 2021

The Sea to Sky Crew of three traveled to Lillooet to treat the Wild Parsnip site at the T'it'q'et wetlands on May 20, 2021. Jacquie Rasmussen was also on site with one more LRISS staff, Annette Bernier.

Weather: The weather was a mix of sun, cloud, and showers. The SSISC crew was not able to apply any herbicide on site due to the rain and uncertainty of the weather conditions.

Safety procedures taken: Each crew did their own COVID health checks and Tailgate safety checks. A portable toilet was rented for on-site, so the SSISC crews did not have to come into contact at all with our community.

Pesticide Free Zone: The PFZ was ribboned out (orange) on the site by the SSISC crew for future herbicide treatment. Inside this zone, no herbicides can be used because of the wetland ponds and wet soil.

Survey: Jacquie & Annette from LRISS ribboned the perimeter of the infestation using pink tape and did a survey using the iPad. The infestation footprint has grown from a size of 0.22 of a hectare to 0.3. The density of the plants inside this footprint is variable. There are places with no plants at all (in the water for sure and other patches) but there are places on the southeast edge where there is a continuous cover of small plants about the size of a loonie.

Manual removal: Manual treatment did occur on this day by all present (5 people). We concentrated our efforts inside the Pesticide Free Zone where no spraying can take place. We prioritized all larger plants that looked to be second year and could produce seeds. We did remove all of these plants in this zone. There are still others in this zone but appear to be much smaller and likely are first year plants that will not go to seed.

Manual removal has caused some trampling of the grass and alfalfa in the zone. These plants will easily recover. This disturbance was necessary to first, find the Wild Parsnip plants in the dense vegetation but second, to do the removal.

Approximately 12 large garbage bags of Wild Parsnip were removed and taken to the Lillooet landfill for disposal.

Next steps: LRISS will liaise with SSISC Operations manager to see if their crews can come over another day in early summer to do herbicide treatment. LRISS staff doesn't start until late June

and July. This may be too late to do any manual removal of second year plants in the zone outside of the PFZ.

T'it'q'et Operations & Maintenance Crews: Kevin Whitney met Jacquie & Annette on site and expressed interest in his crews being trained to identify and do manual treatment for this plant. Jacquie will be following up with Kevin to get his crews trained.

LRISS would recommend that the O&M crews could also do Burdock and Canada Thistle removal as well.

Work Activity Summary for Tuesday, June 29, 2021

An LRISS crew visited the site on June 29. This was the first year that we had staff on this early. They were instructed to dig up any plants that were flowering. The priority area was the Pesticide Free Zone. If all the flowering plants were removed in this zone, then they were to remove the ones in the remaining infested area. They had other sites to do that do so it was only a part day for this removal. The majority of the second year, flowering plants were removed from the site and taken to the landfill.

Work Activity Summary for July 20, 2021

Email report from Sea to Sky Crew lead Rebecca Merenyi: "I've included a screenshot of our data collection for the wild parsnip site - the blue is what we were able to chemically treat today, the yellow is what we mechanically treated within the PFZ in May, and the green shows plants that were surveyed but left untreated.

The increased amount of plant growth (of other species) made it challenging to spray all the wild parsnip in the targeted area, so some were likely missed. We couldn't get to the other areas of the site because it became too hot and too windy around midday.

Three herbicide signs were left on site. The third doesn't show on the map but it is at the base of the large polygon that was sprayed."

On site visit September 10, 2021

Jacquie Rasmussen & Kathryn Young went to the site to retrieve the Herbicide Notification signs on behalf of SSISC. We were able to remove the 3 herbicide notification signs and some flagging tape that had been torn down.

The entire site was not reviewed. There were a few young, first year plants that were noticed on the northeast side of the infestation along what is identified as a plowed, fireguard. We've noticed that most years that the same spots are plowed under in this field, and we thought that perhaps this was done for a fire break for the community.

Next Steps



2022 Activities: A survey of this site will be completed in the spring of 2022 to evaluate the efficacy of the treatment completed this year. It is fully expected that there will be more to treat in future years. Our goal is to continue to treat to reduce seed production and density of the infestation.

Future treatment: As long as we have support from our funders, LRISS crews will continue to manually remove Wild Parsnip from this site where it is safe to do so. Manual removal very early in the season by digging when surrounding vegetation is less dense and tall is the best timing. If the community is willing, we also recommend the continued use of herbicides in the Pesticide Free Zone. When using herbicides, there is very little risk of human exposure to the toxic sap. Digging and handing plants has a higher risk involved to crews.

LRISS will be advocating for continued funding from Ministry of Transportation & Infrastructure as well as Ministry of Forests, Lands and Natural Resource Operations & Rural Development to decrease this infestation.

Collaboration with T'it'q'et Operations & Maintenance Crews: LRISS will liaise with T'it'q'et O&M to familiarize their crews with the identification of Wild Parsnip as well as safe removal. It is essential that their crews understand that this is a dangerous plant and full Personal Protective Equipment is required to prevent exposure of the sap to their skin.

Appendix 5. Tourism Handouts

Áma síqswa Its7a tsítcwkalha. Welcome to our home. When travelling through the Bridge River Valley, please respect the nature, the places and the people. Here is our Visitor Code of Conduct. Please recreate responsibly. KEEP WILDLIFE WILD AND YOURSELF SAFE Never leave a campfire unattended and put your campfire out completely when you leave. Ashes should be cool to the touch. are a se Carry bear spray. Make noise – Wildlife es and lan sing and talk loudly \otimes ~ ve the proper and hunting. Check for and ake sure your butts are fully extinguishe ose of them in designated waste facilitie: moke, n PREPARE FOR ALL ADVENTURES **RESPECT TRAIL ETIQUETTE** Be f Stay ON the trail and share the rail with other users and wildlife. \$ C 20 . Always let your plans before enturing into the wild. <u> 100 1</u> DRIVE CAREFULLY Respect speed limits Reida ssible travel with a Wh 50 RESPECT EVERYTHING LOCAL 0 Support local shops and busin Share the road with cyclists and pedes Ensure your vehicle is equipped for the journey before setting off (such as 4x4, high clearance, and winter tires) and check driving conditions before you hit the road: drivebc.ca MOM + POP P ALIN NO TRESPASSING 00 RV's and slow vehicles can pull over to let others pass on windy roads and uphills. rvivedthehurley.com Respect private property, including private parking spaces CAMP RESPONSIBLY STOP THE SPREAD OF INVASIVE SPECIES Pack out what you pack in. Only camp in designated campi e, Reuse & Recycle Take o Take only pictures as in its natural habitat Visit **Iriss.ca** Cle e of it inte pect quote hours and o Dig a cathole for hum Pack out all your waste and dispose of it into designated wildlife-proof garbage containers after your p ASK IF YOU DON'T KNOW POST RESPONSIBLY Information is the key to be a responsible visitor. Local people are friendly and knowledgeable. Stop in at the local Visitor Centre located at the Haylmore Heritage site in Gold Bridge. Be mindful when posting on social media and consider the potential hacts that rapidly increased use can have on our wild places. Turn off your geotagging or use a generic location tag such as a community / business. RECREATE RESPONSIBLY. Thank you for being a responsible visitor! Source: Adapted from Kootenay Rockies Responsible Tourism Guide.



Appendix 6. LRISS Financial Reports

Lillooet Regional Invasive Species Society Balance Sheet As at 2022-03-31

ASSET

Current Assets		
Gaming Equity Shares	6.59	
Gaming Bank Account	10,225.24	
Chequing Equity Shares	6.80	
Plan 24 Savings Account	30,000.51	
Chequing Bank Account	18,044.12	
TOTAL CASH		58,283.26
Total Current Assets		58,283.26
TOTAL ASSET	;	58,283.26
LIABILITY		
Current Liabilities		
El Payable		-4.70
CPP Payable		-12.95
WCB Payable		6.10
GST Receivable	-2,172.20	
GST Owing (Refund)		-2,172.20
Total Current Liabilities	,	-2,183.75
TOTAL LIABILITY		-2,183.75
EQUITY		
Retained Earnings		
Retained Earnings		4,057.39
Current Earnings		56,409.62
Total Retained Earnings	,	60,467.01
TOTAL EQUITY	,	60,467.01
LIABILITIES AND EQUITY	-	58,283.26

Generated On: 2022-04-27

Lillooet Regional Invasive Species Society Income Statement 2021-04-01 to 2022-03-31

REVENUE

Revenue from Funding		
Habitat Conservation Trust Fund		5,310.39
MOFLNRO - COORDINATION		14,000.00
MOFLNRO - OPERATIONS		28,700.00
ΜΟΤΙ		31,022.31
BC Hydro		6,999.24
SLRD Area B		30,000.00
SLRD Service		42,142.50
Feds - MOE		22,500.00
BC Gaming Grant		22,024.57
Canada Summer Jobs		29,885.00
GST Rebate		1,679.76
Lillooet Naturalists Society	_	1,467.81
Net Funding Revenue	-	235,731.58
Other Revenue		
Bank Interest Revenue		1.11
Miscellaneous Revenue		1.197.65
Total Other Revenue	-	1.198.76
	-	.,
TOTAL REVENUE	-	236,930.34
EXPENSE		
Operating Expenses		
El Expense		1,411.22
CPP Expense		2,564.71
WCB Expense		102.98
Vac Expense		2,458.29
Rent-Office		910.00
Advertising	3,761.75	
Equipment	12,345.10	
Fees, Licenses, Permits	3,074.41	
Meals	50.80	
Meeting Expenses	507.11	
Mileage - kms	6,054.37	
Office and Outreach	6,002.12	
Transportation	96.78	
Contract - Equipment	890.89	
Subtotal	32,783.33	
Total Operating Expenses	40,230.53	

Wage categories		
Coordination-Communication	5,577.22	
Coordination - Meeting	6,874.69	
Coordination - Planning	15,157.34	
Education & Awareness	39,347.96	
Inventory	6,341.23	
Treatment	13,408.19	
Monitor	672.00	
Data Entry	499.26	
Funding - Coordination	9,353.58	
Funding - Grants	1,281.47	
Reporting	2,830.56	
Survey	10,398.00	
Training	4,496.59	
Data Management	1,614.38	
Contract - Treatment	14,430.00	
Contract - Data	7,843.72	
Contract -Outreach	164.00	
Wages - Subtotal		140,290.19
Total Contract Wages	140,290.19	
TOTAL EXPENSE	-	180,520.72
NETINGONE		FC 400 C2
NETINCOME	56,409.62	

Generated On: 2022-04-27

Appendix 7. In-kind Contributions Summary 2021-22

		Estimated	Rate (if	
		number of	applicable	Estimated
Volunteer or Organization	Activitity or Resource	hours)	Value
BRVCA Volunteers - 16 kiosk	Tourism Kiosks -			
dates (5 hours per date, 2	survey & resource			
volunteers)	hand outs	160	\$20	\$3,200.00
	Meetings before, after			
Tourism Kiosk planning	and during for			
BRVCA Staff & Volunteers	planning	25	\$20	\$1,500.00
Ts'kw'aylaxw, Sekw'el'was,				
T'it'q'et, Tsal'alh, St'át'imc				
Government Services, Lillooet				
Tribal Council, Bridge River				
Valley Community				
Association, Lillooet Livestock				
Association, Lillooet				
Agriculture & Food Society,				
Lillooet Naturalists, Lillooet	Organizations posting			
Volunteer Connect	monthly newsletters	42	\$20	\$840.00
	Event planning - 4			
SWIMS	events	8	\$20	\$160.00
	Prepare information			
District of Lillooet -	for LRISS staff to hand			
Information Hand out	out & Printing	4	\$20	\$80.00
District of Lillooet -	Printing costs 500			
Information Hand out	copies	500	\$0.05	\$25.00
Lillooet Library	Organize youth event	4	\$20	\$80.00
T'it'q'et Youth	Organize youth event	1	\$20	\$20.00
BC Science Teacher Professional				
Dav	Event Organization	4	\$20	\$80.00
Lillooet Off Boad Cycling			7	1
Association AGM	Event Organization	4	\$20	\$80.00
Timber Supply Area Partner				
Meeting	Meeting Organization	4	\$20	\$80.00
Marshall Lake Association				
Presentation	Event Organization	1	\$20	\$20.00
Plankton Tow nets	Plankton Tow nets	0	\$0	\$1,200.00
	TOTALS	757		\$7.365.00

Lillooet Regional Invasive Species Society: 2021-22 In-Kind Contributions