

Slocan Lake Watershed Conservation Action Forum Check-In Meeting Summary Report



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TABLE OF CONTENTS

Background Information	2
Summary of Progress on Conservation Action Forum Priority Actions.....	3
Priority Action 1: Pursue Wildlife Habitat Area (WHA) designation for Bull Trout Spawning Areas	3
Priority Action 2: Identify & Conserve Remaining Old Growth Forest	4
Priority Action 3: Map Critical Habitat for Suites of Species at Risk.....	5
Priority Action 4: Propose Designation of the “Bonanza Biodiversity Corridor”	6
Priority Action 5: Manage & Monitor Invasive Species to Protect Sensitive Areas	7
Priority Action 6: Implement Species-specific Actions to Prevent Impacts of Invasive Species on Native Biodiversity	8
Priority Action 7: Develop an Ecosystem Climate Change Adaptation Strategy for Slocan Lake Watershed.....	9
Upcoming Kootenay Connect Projects in the Slocan River Valley.....	10
Species at Risk inventory	10
Sensitive Ecosystem Inventory	12
Wetland enhancement and restoration	13
Other Slocan Valley Projects and Discussions	14
Acknowledgements.....	16
Appendix A: Participants.....	17
Appendix B: Map of Kootenay Connect Projects in the Slocan River Valley	18
Appendix C: Forum Agenda	19



BACKGROUND INFORMATION

In November 2023, Slocan Lake Stewardship Society (SLSS) and Kootenay Conservation Program (KCP) co-hosted a check-in meeting to review the progress on the priority actions from the 2017 [Slocan Lake Watershed Conservation Action Forum](#). The Conservation Action Forum was a collaborative event that involved participants with diverse backgrounds and perspectives, including scientists, resource managers, conservationists, governments, and educational institutions. Forum participants worked together to identify seven priority actions that would contribute to maintaining healthy fish and wildlife populations and ecological functions in the Slocan Lake watershed over the next five years, and were encouraged to pursue these actions as they were able. Six years after the event, it was timely to check-in on these actions and their progress.

The seven Priority Action Plans (not ranked) were:

1. Pursue Wildlife Habitat Area (WHA) Designation for Bull Trout Spawning Areas
2. Identify & Conserve Remaining Old Growth Forest
3. Map Critical Habitat for Suites of Species at Risk
4. Propose Designation of the “Bonanza Biodiversity Corridor”
5. Manage & Monitor Invasive Species to Protect Sensitive Areas
6. Implement Species-specific Actions to Prevent Impacts of Invasive Species on Native Biodiversity
7. Develop an Ecosystem Climate Change Adaptation Strategy for Slocan Lake Watershed

The November 2023 check-in meeting was organized in two sessions. In the morning session, the purpose was to provide an opportunity to review progress on the priority actions identified at the 2017 Forum and to identify next steps and opportunities for collaboration. The afternoon session focused on Kootenay Connect projects led by Slocan Lake Stewardship Society and Slocan River Streamkeepers that are occurring in the Slocan River Valley over the next year years funded by Environment and Climate Change Canada Community-Nominated Priority Places. The day ended with a roundtable of updates of conservation and stewardship projects occurring throughout the Slocan Valley.

SUMMARY OF PROGRESS ON CONSERVATION ACTION FORUM PRIORITY ACTIONS

The following is a summary of the status of each of the seven original priority actions based on a combination of formal presentations and participant updates.

PRIORITY ACTION 1: PURSUE WILDLIFE HABITAT AREA (WHA) DESIGNATION FOR BULL TROUT SPAWNING AREAS

Sally Hammond, Slocan Lake Stewardship Society, provided an update.

- Bull trout are an indicator species for watershed health, provincially blue-listed, and considered a keystone predator species.
- Habitat threats include climate change, wildfire, and logging impacts.
- Silverton Creek provides the majority of annual bull trout recruitment for Slocan Lake.
- In the Slocan Watershed, Wilson Creek, Silverton Creek, and Dennis Creek have 92% of redds.
- SLSS supported redd studies from 2013-2016, which resulted in regulatory change to increase catch size to 60 cm.
- SLSS is currently seeking funding for updated redd studies for Wilson, Silverton, and Dennis Creeks.
- In 2018, the Village of Silverton submitted an application for a bull trout Wildlife Habitat Area (WHA) for Silverton Creek. Ministry of Forests stated recently the application was at the 'top of the list' but awaiting First Nations' review.
- See presentation for more information.

Questions and comments:

- Wildfire studies are happening on Blacktail Mountain (headwaters of Silverton Creek) – Cora Skain and Richard Johnson.
- Interfor is not logging on Blacktail Mountain, but is logging in the Silverton Creek watershed. SLSS keeps in regular contact, and is hoping to bring First Nations' into the discussion.
- There is a 2018 bull trout study which includes the Slocan River system, south of Slocan Lake. The Lemon Creek slide has impacted the spawning channel, creating pools where bull trout are being highly poached.
- Poaching of bull trout has also occurred in Wilson Creek.
- First Nations' communities have Guardian Programs. This Lemon Creek site that is vulnerable to poaching may be a high priority site for guardians.
- **ACTION: Dave DeRosa to follow up with First Nations' communities that have guardian programs.**
- In 2016, Jeremy Baxter led a study of Slocan Lake watershed where there were 105 redds in total: 75 in Silverton, 20 in Wilson, 5 in Dennis, 2 each in Carpenter and Wragge, and 1 in Wee Sandy. See full [Bull Trout Redd Count Report](#).

- In 2018 study of Slocan Lake and River watershed there were 193 redds in total: 137 in Silverton, 20 in Wilson, 20 in Dennis, and 14 in Lemon. See full [Bull Trout Spawning Assessment](#) .
- Has there been thought to apply for bull trout WHA on Wilson Creek? Yes, this was discussed in 2017 and is still on SLSS's radar, funding is presently being applied for. Silverton Creek is meant to be a WHA model however it's taking a long time.
- How big/wide is the WHA on Silverton Creek? The WHA is on the main channel of Silverton Creek (not including tributaries such as Moyie and Bunnell).
- **ACTION: SLSS to follow up on details of the WHA application, including boundaries.**
- **ACTION: Herb Alex (Confederated Tribes of the Colville Reservation) expressed interest in helping push the bull trout WHA along. SLSS and Heb to connect about this.**

PRIORITY ACTION 2: IDENTIFY & CONSERVE REMAINING OLD GROWTH FOREST

Ryan Durand, EcoLogic Consultants, provided an update.

- Old growth is typically considered 140 years old (250 years is very old). Need to look at tree and stand age and also disturbance regime.
- Purse stands of old trees are not common, especially at low and mid-elevations. Remnant patches and single old trees are more common. These old growth patches as well as single trees provide critical habitat for many species at risk (SAR).
- Important that large woody debris is left in the forest from logging operations since it provides moisture, habitat, and nutrients.
- Maps and reports for the BBC's old growth can be found here: <https://kootenayconservation.ca/bonanza-species-at-risk-conservation-values/>
- See maps that indicate remaining old growth is primarily at high elevations and shows the impacts of fire.
- Land acquisition of even small parcels with old growth is important.
- See presentation for more information.

Questions and comments:

- The new old growth strategy is coming soon, but does that mean that there is more old growth logging now with logging companies trying to log that timber before the new strategy comes into effect? Yes, and part of the issue is the definition of old growth.
- The Vegetation Resource Inventory (VRI) is the mapping tool that the provincial government uses to identify old g, but it has limitations. Mapping may not be up to date given recent fires.
- Rachel Holt and others created an [old growth map and report](#) that identified actual old growth.
- What is the importance of mature trees between the patches of old growth (e.g. 'older second growth')? These are important for the future recruitment of old growth (in 140 years).

- What are the next steps for assessments in the Slocan Valley? See afternoon notes. A project funded by Kootenay Connect will update the Sensitive Ecosystem Mapping that was created in 2012, focusing on riparian-wetland areas. Hope to identify other areas with old growth, as well as identifying other significant ecological values.
- Priority areas for old growth deferrals were identified by a technical advisory panel years ago but they are still being logged. Valhalla Wilderness Society is pushing for [three park proposals](#) for the ancient Inland Rainforest ecosystem type. These include ancient stands as well as buffers around them.
- There is a push to get fire back on the landscape. The focus is on fire-maintained ecosystems, but don't have much information on fire resiliency in the Interior Cedar Hemlock (ICH).
- **ACTION: If anyone has information on fire-maintained ecosystems in the ICH, please pass it along to Melissa Rode with BCTS.**
- Locally-based ecosystem data and maps are extremely valuable and more accurate than the provincial layers.

PRIORITY ACTION 3: MAP CRITICAL HABITAT FOR SUITES OF SPECIES AT RISK

Tyson Ehlers, Masse Environmental, and Ryan Durand, EcoLogic Consultants, provided an update.

- Focus of SAR sampling was in the Bonanza Biodiversity Corridor (BBC), so doesn't cover all of the Slocan Lake Watershed.
- The BBC includes the southernmost extent of the Inland Temperate Rainforest bioregion, representing seven BEC subzones. Globally unique bioregion, one of the world's most imperiled temperate rainforests.
- Over 1500 species have been documented to far in the BBC, with a high number of species not ranked because of lack of data. Need more experts on the ground and more focus on inventory to be built into projects.
- 58 species and 8 ecological communities-at-risk in the BBC.
- Slime moulds are now listed in the provincial database and are recognized as rare species because of our efforts.
- Document species occurrences in iNaturalist under the [Slocan Valley Biodiversity Project](#).
- See maps and presentation for more information.

Questions and comments:

- What can be done to protect these important areas? Can see from WHA that the process is very slow. Valhalla Wilderness Society is working on a WHA proposal for a large grizzly bear corridor for the area along Highway 31A that includes the Valhalla Wilderness Society (VWS) toad study area, Zincton, and Whitewater, as well as key grizzly bear areas to the north. VWS was originally told by the provincial government that they couldn't apply for a WHA because the grizzly bear population in that area is not threatened. However, VWS worked with a lawyer to justify they could in fact apply for a WHA for grizzly bears there. This is significant because it opened the door to applying for grizzly bear WHAs in non-

threatened Grizzly Bear Population Units and a WHA for grizzly bear would be a good idea to apply in the BBC. Wayne suggested that for the BBC, the grizzly bear WHA application would be designed for the whole wetland corridor from Summit Lake to Snk'mip and adjacent forested buffer and could be an umbrella for other SAR that might qualify for smaller WHAs. Very timely to do this.

- For the past nine years, VWS has had a toad research project at Fish & Bear Lakes along Highway 31A. Over the years, 5,000 adults have been removed from the highway by researchers. Identified adult crossing hot spots guided the Ministry of Transportation and Infrastructure (MoTI) installation of two underpasses last month. VWS is very excited to finally have them and will begin designing the fencing for them. The PCV diversional fencing in the rest area continues to function well and has kept over 300,000 toadlets off the higher.
- Migrating adult toads occur all along the highway from Retallack to Three Forks. A few years ago, VWS extended their night surveys of adults further west along the highway to Three Forks and have found hundreds of toads, mostly females, using the highway as a travel corridor to reach Fish Lake for breeding.
- Even though whitebark pine is a SAR, it's still legal to log it. Any logging companies doing work up high, there is information about knowing what whitebark pine is, how to protect it, and buffer to leave around it.
- Herb Alex has released sockeye salmon in the Slocan River. Once salmon are reintroduced and are able to pass the dams to reach the ocean, the fish will bring marine nutrients back into our ecosystem. There are certain invertebrates that only live off marine nutrients so salmon reintroduction could potentially increase arthropods.

PRIORITY ACTION 4: PROPOSE DESIGNATION OF THE “BONANZA BIODIVERSITY CORRIDOR”

Marcy Mahr, KCP, and Wendy King, Slocan Lake Stewardship Society, provided an update.

- Our collective actions have shone a bright light on the BBC since 2017. We have been compiling the necessary components of a Corridor Conservation Plan.
- **Comprehensive mapping:** Using LiDAR, TEM biophysical attributes, hydro and watersheds vulnerable to climate change, wildlife corridors, human infrastructure and settlements, etc.
- **Species and habitat knowledge to document conservation values:** Data inputs include wetland bioblitzes, SWAMP, Rail Trail Environmental Impact Assessment, Western toads (Summit Lake draft management plans); Kokanee counts and rainbow trout assessments. The BBC is a major wildlife food web at both the macro and micro-levels. Rich wetlands and hydrology. >1,500 species and 58 SAR inventoried to date and counting. SAR and sensitive ecosystem inventory (SEI) mapping. Wetland restorations and continued site monitoring.
- **Wildlife Connectivity:** The BBC is a north-south corridor in terms of hydrology, climate change refugia, bird migration, toad migration, etc. There's an important east-west wildlife corridor south of Summit Lake that connects existing protected areas and conservation

lands. At the landscape scale, the BBC is recognized as a climate refugia between Slocan Lake and Arrow Lake by Greg Utzig in this part of the West Kootenays.

- **Expansion of the Nature Conservancy of Canada (NCC) Natural Areas Planning Area:** After the 2017 Forum, NCC expanded its planning area (i.e. its acquisition area) north from the South Selkirks to include the Slocan Valley and BBC to north of Nakusp.
- **Private lands conserved since 2017:** Snk'mip acquired by Valhalla Foundation for Ecology (2017); Bonanza Marsh Conservation Area acquired by NCC (2022) - these acquisitions are significant and have secured 50 acres as the southern conservation anchor of the BBC.
- **Non-motorized designation** of the Rail trail has removed a threat and helped ensure the conservation of important ecological values.
- **Conservation options reviewed:** Multiple WHAs; Wildlife Management Area (WMA); Indigenous Protected and Conserved Area – Okanagan Nation Alliance (ONA) proposed one in 2018 but ultimately didn't move forward with it.
- **Evolving strategic/regulatory landscape:** Since 2017, there is support for more Indigenous-led strategic leadership; there have been environmental regularly reforms; and new provincial and federal initiatives and legislative changes to encourage more conservation.
- RDCK Official Community Plan (OCP) process is beginning for Area H.
- [2023 Bonanza Biodiversity Corridor Conservation Plan](#) outlines 7 pillars to move on. Provides framework for moving forward. See:
- Summit Lake Western toads – SLSS is initiating discussion with BC Parks for expanding Provincial Park boundaries. Also, seeking to designate the BBC under s. 17 of the *Land Act* – 'Conditional withdrawal from Disposition of Crown Land'. Submitted EOI to support *Access Regulation Change* to manage motorized access by linking existing protected areas for wildlife. Continued identification of private lands for conservation.
- See presentation for more information.

PRIORITY ACTION 5: MANAGE & MONITOR INVASIVE SPECIES TO PROTECT SENSITIVE AREAS

Erin Bates, Central Kootenay Invasive Species Society (CKISS), provided an update.

- CKISS area is divided into six Invasive Plant Management Areas, and the Slocan Valley is one.
- **Prevention:** Outreach and community engagement: 12 outreach booth events, 79 reports from Slocan Valley residents, 40% of inquiries are about knotweed, 1171 invasive species resources distributed in Slocan Valley; weed pull and restoration events including Snk'mip Marsh and Bonanza area with school and community groups; New Denver Marina committed to be an Invasive Wise Marina in 2019, 'Clean, Drain, Dry' signs installed, brochures at outreach booth and SLSS card holders.
- **Local government collaboration:** RDCK collaboration includes Regional Invasive Species Strategy (2021), Implementation Plan 2022-current, Regional Invasive Species Working Group (RISWG) beginning in 2023; Municipal collaboration including 3 presentations to



municipal councils; Village of Slocan Invasive Plant Inventory and Management Plan (2021); Future ongoing collaboration through the RISWG to support bylaw development, encourage training and proactive management, and explore options to encourage private land management.

- **Monitoring for priority aquatic invasive species:** Full shoreline surveys on Slocan and Little Slocan Lakes in 2018 with no invasive plants found but yellow flag iris has been reported in the Walter Clough Wildlife Sanctuary along the Slocan River; Management by MOF- FWCP, Kootenay Riparian Project 2020-2023; Sample for zebra and quagga mussels on Slocan Lake with no positive detections to date (2023), sampling of Slocan River began in 2022 with no positive detections; Asian clams were found in Pend D’Oreille river but not being regularly monitored – need funding to monitor.
- **Invasive plant management:** Provincial public roads including MoTI roadsides, and MOF forestry roads with surveys and annual treatments where possible; Slocan Valley Rail Trail had full survey completed in 2021 and treatments the following year using CKISS crew and Stronger BC Crew (hired by Invasive Plant Council of BC) focused on Scotch broom and hoary alyssum; Village of Slocan had a full inventory completed in 2021 and the Stronger BC Crew controlled Scotch broom and hoary alyssum in 2022; Worked with BC Parks and did full inventory of Valhalla Provincial Park shoreline in 2016, inventory of Rosebery Provincial Park in 2022, planning to design and install a ‘Play, Clean, Go’ kiosk with a boot brushing station at Gimli trailhead in winter/spring 2024; RDCK Properties, including a full survey of the transfer station in 2021 and all other RDCK properties in 2022; Conservation lands including full survey of Bonanza Marsh for NCC in 2023 and community weed pulls 2019-2023 at Snk’mip Marsh.
- **ACTION: Reach out to CKISS if you’re interested in a survey done on a public road.**
- See presentation for more information.

Questions and comments:

- Are bioagents still available for knapweed? No, the provincial government is currently developing a policy before others are allowed to collect and release ‘tertiary bioagents’.

PRIORITY ACTION 6: IMPLEMENT SPECIES-SPECIFIC ACTIONS TO PREVENT IMPACTS OF INVASIVE SPECIES ON NATIVE BIODIVERSITY

Dr. Cori Lausen, Wildlife Conservation Society Canada, provided an update.

- See: <https://kootenayconservation.ca/species-at-risk-bats/>
- **Spread of White Nose Syndrome:** Was recorded in BC for the first time in March 2023 near Grand Forks. It is either expanding slowly into BC or bats are dying underground and so are undetected except for this one occurrence.
- **Bat inventory:** Through acoustic monitoring, mist-netting, guano sampling, mine inventory, bridge guano sampling, hibernacula survey/monitoring (Molly Hughes mine on Slocan Lake), and winter bat acoustics.

- **Bat monitoring:** Two North American Bat Monitoring Program (NABat) grid cells (10x10km or 100km²) in the Slocan Lake Watershed – both in the BBC, with one at Summit Lake and one at the top end of Slocan Lake. Getting good baseline data, and trends can be detected after 8 years of data collection.
- **Roost enhancement:** Create habitat with BrandenBark to create ‘fake’ old growth and wildlife tree modification, monitor bat use of these structures with ‘guano traps’ which is mesh below to collect guano.
- **Winter bat species:** Silver-haired bats, California myotis, long-legged myotis, Townsend’s big-eared bat – these species are here in winter and likely hibernating.
- **Future work outside the summer season:** Identify additional winter roosts and overwintering species, winter monitoring for baseline activity and species including disease (White Nose Syndrome) surveillance, climate change shifts, future recovery efforts, and inform resource extraction/developments and mine closures.
- **Future activities:** Migration monitoring by using bat detectors during all season; potentially building a bat condo with Kootenay Community Bat Project and Okanagan Nation Alliance in the lower Slocan Valley.
- See original actions from 2017 CAF.

Questions and comments:

- Bats have been detected flying in the winter, what are they eating in winter? Cori and crew have found that bats are not actually eating and she’s curious about their activity when flying costs them metabolically - why emerge from their hibernacula to fly around and then return?
- Beyond Molly Hughes mine, have you documented any other mines used as hibernacula? No, Wildlife Conservation Society Canada (WCSC) has not had the capacity to document any other mines used as bat hibernacula.

PRIORITY ACTION 7: DEVELOP AN ECOSYSTEM CLIMATE CHANGE ADAPTATION STRATEGY FOR SLOCAN LAKE WATERSHED

Wendy King, Slocan Lake Stewardship Society, provided update.

- Adaptation vs. Resiliency – although only adaptation was mentioned in 2017, resiliency is important as well. This includes identifying creeks and associated wetlands that are vulnerable to climate change.
- Need regulatory and strategic policy shifts including federal and provincial, RDCK climate change strategy and plans, and forestry/parks/land use reform.
- Living Lakes Canada has expanded their water monitoring program and collects data on the valley’s creeks and tributaries as well as subalpine and alpine lake levels focused on climate change.
- Looking at where climate change corridors and refugia are as well as where water is coming from to determine what action can be done and then find funding.

- See Greg Utzig's report [Climate Disruption and Connectivity in the West Kootenay](#).

Questions and comments:

- N/A

UPCOMING KOOTENAY CONNECT PROJECTS IN THE SLOCAN RIVER VALLEY

In 2018, Michael Proctor and Marcy Mahr identified 12 high priority ecological corridors in the Kootenays called '[Kootenay Connect](#)' that form a regional network linking up parks and other protected areas. In 2019, KCP, on behalf of a dozen partners, applied to and received four years of funding from Environment and Climate Change Canada's 'Community-Nominated Priority Places'. This was an opportunity to get funding for four corridors with strong local lead organizations (aka Corridors with Champions) that were well positioned to do on-the-ground habitat enhancement and restoration work to benefit federally listed SAR. These focal areas were Bonanza, Creston Valley, Wycliffe, and Columbia Wetlands. In 2022, the ECCC funding for Kootenay Connect was extended for three more years which provided the opportunity to add three additional focal corridors which include: Slocan River Valley, Duncan Lardeau, and Columbia Lake. Currently, Kootenay Connect Community-Nominated Priority Places is active in seven of the 12 identified ecological corridors.

The Forum check-in meeting provided an important opportunity to provide information on the planned activities of this Kootenay Connect work in the Slocan River Valley that is being led by Slocan Lake Stewardship Society and Slocan River Streamkeepers for the next three years (2023-26) and identify potential collaborations. Funded projects include:

- Species at risk inventory
- Sensitive ecosystem inventory
- Wetland enhancement and restoration

The following is a summary of the upcoming projects discussed at the check-in meeting.

SPECIES AT RISK INVENTORY

- Overview of SAR inventory & ecosystem mapping project: The focus is on floodplains and cottonwood habitats, including species like Lewis's woodpecker, Western screech-owl, and habitats that will support those species.
- One of the places that needs to be explored more is Little Slocan Lake and River. These areas have relatively pristine floodplains, especially compared to the Slocan Lake Watershed. They (Ryan Durand and Tyson Ehlers) want to learn what's there before there are conservation impacts. They are visiting places they think might be biodiversity hotspots.

- Want to access properties with unique cottonwood floodplains. They are having issues with private land access. They haven't gathered a lot of data yet, but added a new SARA-listed species to the list (bank swallow), and new records of other species (e.g. slime moulds). Identifying new species is expanding the iNaturalist database throughout the valley.
- Are considering bioblitzes to expand on citizen science, engagement, and get new data.
- They also have 10 wildlife cameras set up throughout the valley for documenting wildlife. Also, thanks to Richard Johnson and SLSS they have passive recorders for birds and bats.

Questions and Discussion

- Kate Mizenka said that Tyson has done inventories at Elk Root Conservation Farm Society and this has spurred more inventory and monitoring work. There are two juvenile Western screech-owls living on the property as well as an osprey (in early November 2023). She keeps the riparian and floodplain land connected and undisturbed so it's a good model for private land stewardship.
- Elk Root Conservation Farm Society is developing a private land stewardship model that Angeline Emmott will work on this winter. They are also putting together an education model for riparian stewardship based at Elk Root. All of their data is publicly-available on iNaturalist. Elk Root Conservation Farm Society may be in a position to help given the private land stewardship project that could work hand in hand with the SAR inventory project to help with the outreach and educating and working with landowners.
- **ACTION: Kate to reach out to SLSS when the private land stewardship project is more fully developed in order to identify collaborations.**
- *Would documenting maternity colonies of little brown myotis be a part of this project?* Cori Lausen with Wildlife Conservation Society Canada (WCSC) would like to see more documenting of little brown bat maternity colonies in the area. Kootenay Community Bat Project has documented building roosts and there were a lot of colonies known, but need to determine which species are there (SAR or not). This was on Cori's list for synergies. There are some data sharing issues, they don't know where all the building roosts are but it's important to know in terms of where to put up bat condos and BrandenBark.
- **ACTION: Juliet to follow up with Cori and Elodie about sharing of Kootenay Community Bat Project data.**
- *In your searches, have you found many snake hibernacula?* Tyson is looking for snake hibernacula and has found a garter snake hibernaculum in his neighbourhood in Winlaw near the Rail Trail. There is more work to be done on locating hibernacula. It's possible to make some iNaturalist data private/obscured.

SENSITIVE ECOSYSTEM INVENTORY

- Ryan said the goal over the next year is to redo the sensitive ecosystem inventory (SEI) polygons but high-grade locations from the 2012 SEI to focus on important habitats like riparian, wetlands, and floodplains. Mapping will include finding new occurrences and habitat, identifying connectivity, and ultimately determining where there are opportunities for conservation and restoration.
- They will use a similar method to the mapping in the BBC but instead of conducting new mapping, they will update the existing 2012 mapping and improve it, with emphasis on floodplains, riparian, and wetlands (focus on floodplain, not aquifer boundaries). They are still deciding where to focus the work outside of the main river stem of Slocan and Little Slocan rivers. Most side channels don't have a floodplain, so probably won't be a focus of the SEI.
- Richard Johnson, Slocan Solutions, presented an update on the Slocan Valley aquifer project. About 10,000 years ago this valley was filled with ice, then it retreated, leaving the valley full of debris and water. The meanders of the Slocan River are a legacy of this. As the meanders move downstream they leave behind an aquifer filled with water. That water flows along with the river (hyperbaric flow), and that water picks up streams coming in from the side. Need to know the flow and chemical markers (e.g. selenium) of these streams. His project is focused on mapping aquifers. First need to map the geology, then the aquifer, then the water. From this, he can make a baseline of the water and then how it can foster/create things like sensitive ecosystems. All is tied to the aquifer and the water flow. Landowners are needed for this project because the project needs access to wells for data. Hoping to have agreeable landowners on a successful project that allows proof for other projects and helps with buy-in from the community in future projects. He is working with Living Lakes Canada on accessing and monitoring the wells as well as installing hydrometric stations. He might consider doing drone flights to map water temperatures and LiDAR.
- Stephan, Slocan Integral Forestry Cooperative (SIFCo), went through the Community Wildfire Protection Plan process, mapped valley from north to south, they have 14 different layers of data. SIFCo has a large database that Stephan is willing to share upon request. Tyson would love to see data from licencees in the area like BCTS and SIFCo as well, great to share and create synergies!
- Cori sees synergies between mapping old growth and mapping occurrences of bats.
- Lorna Visser from Valhalla Foundation for Ecology notes the important tools of: (1) conservation covenants, and (2) land acquisition for conservation. She also mentioned the federal [Ecological Gifts](#) program, which can be a great positive for them. Valhalla Foundation for Ecology holds two conservation covenants. Land trusts tend to prefer land

acquisition rather than covenants although The Land Conservancy of BC holds covenants and has an [online application form](#). There are also creative options like subdivision.

WETLAND ENHANCEMENT AND RESTORATION

- SLSS has identified three specific wetland areas to work on (see map in Appendix B). Perry Bridge Oxbow is on crown land, and Larsen Ranch is private property that Stephan is connected to. Perry's has a big wetland complex. Gregoire Lamoureux with Slocan River Streamkeepers still needs to confirm a few things about the sites.
- Some Crown Land properties are covered in reed canarygrass, so the plan is to bring back cottonwood ecosystem. Ryan said another rationale for restoring floodplain systems is that when the reed canarygrass overtakes there is very little biodiversity, so when we can foster cottonwood ecosystems they support high biodiversity, especially of native species. Dave DeRosa, ONA, suggests contacting Mike Miller from LGL about managing and reducing reed canarygrass.
- There is potential to create habitat for Lewis's woodpecker, Western screech owl, and Western painted turtle and enhance critical habitat for bank swallow. They plan to install basking logs and bird nesting boxes.
- Larsen Ranch is a private property that is owned by a cooperative of landowners. The intention is to keep it private for conservation (not sell to land trust). On the Larsen property, they want to bring back healthy riparian cottonwood-dominated ecosystems with native shrub understories. It has prime fish habitat for rainbow trout in the Slocan River.
- **ACTION: Cori to contact Stephan about assessing bats on the Larsen property.**
- Gregoire Lamoureux is also working on some restoration work at the Walter Clough Bird Sanctuary, replanting cottonwood and putting up nest boxes, as part of a separate 2-year funded project with the Nature Trust of BC (NTBC). They found a Lewis's woodpecker in a duck box indicating a shortage of trees for nesting birds.
- Lindy Lin (ONA) said that LGL has bird song recording devices and bat devices, ONA can share their data with Cori Lausen.
- **ACTION: Lindy and Dave will share LGL data with Cori Lausen.**
- *Is there any work on connectivity between Valhalla Provincial Park and Kokanee Glacier Park across the south valley for grizzly bears?* Ryan says yes, cross-valley connectivity will be assessed in Year 3. That was one of the rationales for restoring areas near Lemon Creek because that's the main east-west corridor.
- ONA is in discussion with NTBC in Castlegar about Waldie Island as well as the Slocan River Island property. Those properties are facing issues with weed management and ONA may work in partnership for invasive plant control.

- Gregoire mentioned that yellow flag iris is hard to remove, need to cover with a membrane rather than dig up and remove.

OTHER SLOCAN VALLEY PROJECTS AND DISCUSSIONS

- *Is motorized traffic on the Slocan River an impact?* Gregoire says other than the areas just south of the lake's confluence, much of the river is too shallow for motor boats. Not enough traffic to be a big issue. Would be nice to limit the speed, but will there be anyone to enforce it?
- Wendy sees the value of Wilson-Fitzstubbbs basin for conservation. Need to get funding for a bioblitz to see what biodiversity is up there. The sub-basin is a huge input to the lake (~35% of the water to the lake is from Wilson Creek drainage). Columbia Basin Watershed Network has put temperature monitors up there. SWAMP has monitoring plots from the Beaver Lake area that show incredible diversity in wetland types and old growth spruce-cedar swamps. VWS has monitored Western toads at Beaver Lake and found it is a significant breeding area. Wayne McCrory has done some grizzly bear work up there and talked about maybe applying for a WHA there. WCSC does a bat transect survey up there every year. There are some old growth patches up there that might be good for bats.
- **ACTION: Cori Lausen to connect with Craig Pettit from Valhalla Wilderness Society to learn more about old growth patches along East Wilson Lake Road.**
- ONA doesn't lead any projects in the Slocan Valley but they support lots of projects and would like to be involved in future projects. ONA was thinking of taking over the toad fencing at Summit Lake and Lindy worked with Blair Smith but there is currently no capacity for this work. Will stay in a supportive role.
- Within the Valhalla Report strata located on the north shore of Slocan Lake, the homeowners are Fire Smarting as a neighbourhood and doing weed management (knotweed and policeman's helmet). They are talking with NCC about an undeveloped portion of property they jointly own to explore their options.
- Melissa Rode with BCTS had a question about data sharing. Being government, they can share their information. Potentially check the Columbia Basin Water Hub. KCP has a [conservation resource webpage](#), she could send reports to KCP to share. Data management is an issue. *Could the BBC mapping work be useful to BCTS?* Melissa says they are trying to focus on a shift toward forest landscape planning but they don't have a clear vision of that will look like. New Old Growth Strategy will come out soon. She is hoping that data could drive forest adaptation in the future.
- **ACTION: Lindy will forward CDC contact to Melissa Rode, BCTS.**
- **ACTION: KCP will send Amy Waterhouse's contact info to Melissa Rode.**

- VFE are planning to do more Western painted turtle enhancements at Snk'mip. Continued monitoring at 3 snake hibernacula on their sites. Ongoing invasive species control on their sites. Would like to see the Rail Trail Alliance be responsible for controlling invasive plants along the trail bordering the marsh. VFE is making a documentary film about Snk'mip coming out in the new year.
- WCSC will be working more in Summit Lake and Hunter Siding area next summer for bat habitat enhancement.
- Alan Thomson is involved in Winlaw Creek restoration. Highway culvert is being assessed by MoTI for fish passage concerns. Conceptual stages of replacing the culvert with a bigger one, maybe open-bottom that will improve fish passage. The section from the culvert downstream to the mouth will be restored with constructed pools. The work will be happening next fall. Funded in part by CBT EEP, SIFCo and Columbia Power Corporation.
- SIFCo is monitoring water on Trozzo and Winlaw Creeks post-wildfire through CBT EEP funding. They have 3-4 years of data. They are proposing fish habitat enhancement in the main stem of the Slocan River by Larsen Ranch and in the final stages of designing that. Working on a prescribed burning program and have more planned. Building a resiliency centre as part of Appledale Hall, it is being renovated. Working on FireSmart program in Pedro, Paradise, and Trozzo (strategic landscape level wildfire mitigation program). Working on an algorithm to reverse engineer desired future conditions using inference. What do we need now to create future desired conditions? Have made documentaries for SLSS and SRS as part of community service and have a [video gallery](#) on many other topics. Looking at tenure reallocation (expansion of community forest program) to address issues in the valley, including climate change.
- Slocan River Streamkeepers continue water monitoring and temperature monitoring in the main stem and tributary and Lemon Creek, as well as using CABIN monitoring. Looking at 2 wetland restoration projects near Winlaw, outside of the scope of what was mentioned earlier with Kootenay Connect. Gregoire has 150 nesting boxes that he monitors every year, would like to continue that.
- Corey Scott from RDCK: Most relevant projects are going to review electoral Area H North's OCP. RDCK will be seeking information from SLSS and other local groups for Area H North's OCP. Director Popoff also wants to see if there is interest in H South as well, but not sure if that will happen. Another focus is the Climate Action Plan and the community sustainability group is processing data from the open houses.
- Little Slocan River has the possibility of bull trout spawning if the slide area is stabilized at some point. The slide is releasing sediment that is preventing bull trout passage.

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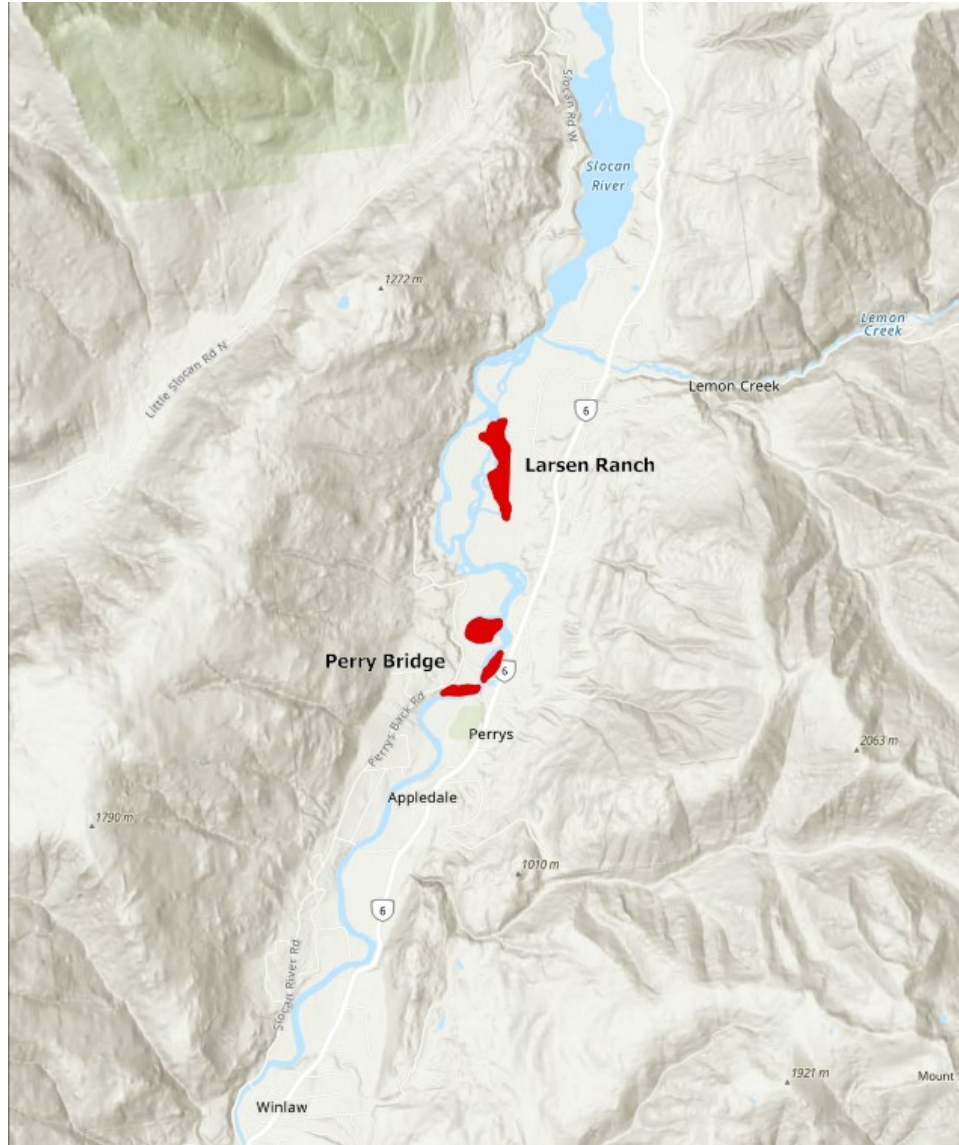


APPENDIX A: PARTICIPANTS

Name	Position	Organization
Adrian Leslie *	South Selkirk Project Manager	Nature Conservancy of Canada
Alan Thomson	Principal and Senior Consultant	Mountain Station Consultants Inc.
Amber Peters	Biologist	Valhalla Wilderness Society
Angeline Emmott	Native Plant Gardens & Nursery Manager	Elk Root Conservation Farm Society
Camille Roberge	Stewardship Coordinator	Kootenay Conservation Program
Corey Scott	Planner	Regional District of Central Kootenay
Cori Lausen *	Research Biologist & Bat Specialist	Wildlife Conservation Society Canada
Dave DeRosa	Major Projects Biologist	Okanagan Nation Alliance
Decker Butzner	Director	Slocan Lake Stewardship Society
Erin Bates	Executive Director	Central Kootenay Invasive Species Society
Gregoire Lamoureux	Co-Founder, Manager of Riparian Restoration Projects	Slocan River Streamkeepers
Heather Gates	Conservation Assistant	Wildlife Conservation Society Canada
Herb Alex	Policy Advisor	Confederated Tribes of the Colville Reservation
Jennifer Yeow	Member	Slocan River Streamkeepers
Juliet Craig *	Program Director	Kootenay Conservation Program
Kate Mizenka	Executive Director	Elk Root Conservation Farm Society
Krista Watts	Environmental Lead, Delivery of Benefits	Columbia Basin Trust
Lindy Lin	tmix ^w (Wildlife) Technician	Okanagan Nation Alliance
Lorna Visser	Director	Valhalla Foundation for Ecology
Marcy Mahr *	Kootenay Connect Manager	Kootenay Conservation Program
Melissa Rode	Planning Forester	BC Timber Sales - Kootenay/Nakusp
Richard Johnson *	Science Advisor	Slocan Solutions Society
Ryan Durand *	Research Ecologist	Durand Ecological Ltd.
Sally Hammond	Director	Slocan Lake Stewardship Society
Sandra Kabel	Member	Slocan River Streamkeepers
Stephan Martineau *	Manager	Slocan Integral Forestry Cooperative
Tyson Ehlers	Research Ecologist	Masse Environmental
Wayne McCrory *	Co-Founder, Chairperson	Valhalla Wilderness Society
Wendy King *	President	Slocan Lake Stewardship Society

* Attended the 2017 Slocan Lake Watershed Conservation Action Forum

APPENDIX B: MAP OF KOOTENAY CONNECT PROJECTS IN THE SLOCAN RIVER VALLEY



APPENDIX C: FORUM AGENDA





Slocan Lake Watershed *Conservation Action Forum - Check-In Meeting*

Wednesday, November 15, 2023

9:00 am – 3:30 pm PT

Slocan Legion, 502 Harold St., Village of Slocan

AGENDA

Purpose: To check in on the progress on the seven priority conservation actions identified at the [2017 Slocan Lake Watershed Conservation Action Forum](#) and to identify next steps and beneficial collaborations.

8:45 **Grab a coffee and get settled**

9:00 **Welcome and Agenda Review**

- Camille Roberge, KCP Stewardship Coordinator
- Marcy Mahr, KCP Kootenay Connect Manager
- Wendy King, Board Chair, Slocan Lake Stewardship Society

9:10 **Introductions: Round Table**

- Name, organization, were you at the 2017 forum? What is your connection to the Slocan Valley? (1-minute each)

10:00 **Updates on the Slocan Lake Watershed Conservation Action**

- **Action #1:** Pursue Wildlife Habitat Area (WHA) designation for Bull Trout Spawning Areas
Sally Hammond, Slocan Lake Stewardship Society
- **Action #2:** Identify and conserve remaining old growth forest
Ryan Durand, EcoLogic Consultants
- **Action #3:** Map critical habitat for suites of Species at Risk
Ryand Durand, EcoLogic Consultants and Tyson Ehlers, Masse Environmental

10:45 **Bio Break (15 min)**



11:00 Updates on the Slocan Lake Conservation Actions cont.

- **Action #4:** Propose designation of the Bonanza Biodiversity Corridor
Wendy King, SLSS and Marcy Mahr, KCP
- **Action #5:** Manage and monitor invasive species to protect sensitive areas
Erin Bates, Central Kootenay Invasive Species Society
- **Action #6:** Implement species-specific actions to prevent impacts of
invasive species on native biodiversity
Cori Lausen, Wildlife Conservation Society Canada
- **Action #7:** Develop an ecosystem climate change adaptation strategy for the
Slocan Lake watershed
Wendy King, SLSS

12:00 LUNCH (1 hour)

1:00 Updates on current Kootenay Connect projects in Slocan Valley and group discussion of potential collaborations

- Description of four Kootenay Connect projects (2023-26)
 - Species at Risk inventory
 - Sensitive Ecosystem Inventory
 - Wetland enhancement and restoration
 - [Bonanza Biodiversity Corridor - already discussed in morning]
- Flex discussion of:
 - Why were these selected as priorities?
 - What is being planned?
 - What collaborations would be beneficial?

3:10 Closing Remarks

3:30 Adjourn

Special thanks to KCP Program Supporters



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