



NATURE TRUST
BRITISH COLUMBIA



BC/NTBC Joint Conservation Land Management Program (Wildlife O&M)

HCTF Project #0-451

Regional Summary Reports
2021 - 2022



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West Coast Region

Region: West Coast

Ecological Significance of the Region:

The Vancouver Island West Coast Region contains some of the most diverse and rarest ecosystems in British Columbia and supports internationally significant populations of fish and wildlife as well as some of the rarest species found in the Province.

Estuaries, wetlands and riparian areas are among the most diverse and productive ecosystems in the world. The importance of protecting and managing these habitats cannot be understated given their substantial life history functions and benefits not only to fish and wildlife but to the human population as well (e.g. clean water supplies, flood protection, mitigating impacts from climate change). It is estimated that more than 50% of wildlife species in North America rely on access to wetland habitat for at least part of their life-cycles, and almost 35% of all rare, threatened, and endangered wildlife species are dependent on wetland ecosystems (Wetland Action Plan for British Columbia, 2010).

In British Columbia, estuaries and coastal wetlands comprise less than 3% of BC’s coastline, while providing habitat to over 80% of all coastal fish and wildlife species. Approximately 500 species of named plants and animals are associated with wetlands and estuaries, and 70 of those species are federally listed as endangered or threatened. Vancouver Island and the Central Coast contain significantly higher ranked estuaries than any other eco-region in the province (CWS Technical Report Series #476, 2007). Of the 8 Class 1 estuaries in BC, 4 are located on Vancouver Island.

Despite their importance and rarity, approximately 43% of the province’s estuaries are threatened by coastal development, modification, and pollution; approximately 60% of marsh habitats along the estuaries of the Salish Sea have been lost.

Since 1976, The Nature Trust of BC and the Province of British Columbia has worked together with several partner agencies to secure these critical habitats on Vancouver Island and the Central Coast. From the Cowichan Estuary to the Kingcome Estuary more than 110 conservation properties have been secured protecting over 15,000ha of critical fish and wildlife habitat along with rare ecosystems.



Key Property Complexes

Baynes Sound	Buttertubs Marsh
Cluxewe Estuary	Cowichan Estuary
Dudley Marsh	Filberg Marsh
Kingcome Estuary	Lazo Marsh
Nanaimo Estuary	Orel Lake
Englishman River (PQWMA)	Salmon River Elk Reserve
Salmon River Estuary	Asseek Estuary
Somenos Marsh	Kumdis Slough
Willow Creek	Bella Coola Estuary
Koeve Estuary	Quatse WMA
Tofino Mudflats WMA	

Summary Statement of Regional Investment:

In 2021-2022, \$134,510 was invested by HCTF in the West Coast Region. This funding was matched by over \$1.9 million dollars in partner cash contributions as well as \$100,000 in in-kind contributions by volunteer groups, local governments and First Nations.

Project Highlights:

- \$ 17,566 at Lazo Marsh NE Woods WMA to support boardwalk and wildlife view platform replacement and upgrades, install and replace signage, conduct invasive species surveys and removals, and inventory and map existing trails informing updated trail plans, and conduct danger tree removals.
- \$17,394 at the Parksville Qualicum Beach Wildlife Management area to support ongoing restoration works at the Englishman River Estuary featuring the redistribution of casting materials into tidal benches with installation of LWD increasing habitat diversity, installation of improved boundary and regulatory signs at beach accesses, invasive species inventory and removals, and the re-routing of a popular walking trail away from an undercut bank.
- \$13,483 at the Nanaimo River Estuary Conservation Area installing submerged habitat structures promoting shellfish establishment within pond, addition of soil and 800 plants for meadow restoration in upper estuary, construction of fencing around planting site and installation of plant cages and raven deterrents for installed plants.
- \$6,287 at the Quatse Wildlife Management Area to support estuary monitoring work in partnership with the Kwakiutl First Nation, and the planting of 3500 native estuary graminoids and shrubs along constructed benches at dike breach off Goodspeed Rd. Further supported the replacement of plastic snow fencing with natural materials including Alder and Willow.
- \$9,201 at Willow Creek removing the decking debris from the former bridge site and restoration of site involving the closing of trails leading to the bridge with fencing and replanting. Further, funding supported continued replacements of boundary and regulatory signs which are routinely vandalized.
- \$11,215 within the Baynes Sound Conservation Area at Fanny Bay for legal boundary survey and subsequent boundary signage installation, installation of regulation signs within Millard Creek along Right of Way, continued treatment of meadow knapweed and other invasive species throughout the conservation area.

- \$11,381 at Cowichan Estuary Conservation Area to support ongoing management activities focused on invasive species control, trail and infrastructure management, farm planning, responding to public issues and concerns, coordinating volunteer projects and finally working in cooperation with Cowichan Tribes on the development and implementation of restoration/monitoring projects.
- \$7,334 at S'amunu WMA replacing boundary fence, providing nest box materials to stewardship groups, ongoing species-at-risk restoration and recovery plan implementation, coordinating land management activities, farm management and addressing ongoing trespassing.

Conservation Outcomes:

Key conservation outcomes for the West Coast region include:

- Invasive species control measures taken on approximately 8ha of estuarine and riparian habitat with 19 sites surveyed and treated. This includes over 3 ha of Yellow Flag Iris flower and seed pod removals and complete Scotch Broom removal at S'amunu WMA and nearly .05ha of Meadow Knapweed and Canada Thistle removed from Fanny Bay (Baynes Sound Conservation Area).
- Restorative actions including planting of native trees, plants and shrubs in estuarine and riparian habitat including the Englishman River, Quatse River, and Nanaimo River Estuaries.
- Installation of two submerged habitat structures to increase shellfish presence in pond at the Nanaimo River Estuary
- Increasing monitoring and inventory work at several conservation areas with focus on estuary resiliency, water quality, migratory and breeding birds, invertebrates, and salmonids.
- On-going partnerships with First Nations, Local Governments, Stewardship Groups, and Fish and Game Clubs

Photographs

Please include some photographs highlighting project work in your region.



Before: Willow Creek Invasive Plant Removal



After: Willow Creek Invasive Plant Removal



PQBWMA: Englishman River trail closures and detour routes installed after flood damage and public safety concerns



Willow Creek: bridge decking materials removed from creek basin



Quatse Estuary WMA: Restoration Planting with Partners Including DFO and Kwakiutl First Nation



Baynes Sound - Fanny Bay: Boundary Marker Sign Installed after Legal Survey



Nanaimo River Estuary: Himalayan Blackberry maintenance and control methods applied to recurring site.



S'amunu WMA: WCLMP Crew replacing boundary fence along Garry Oak Ecosystem



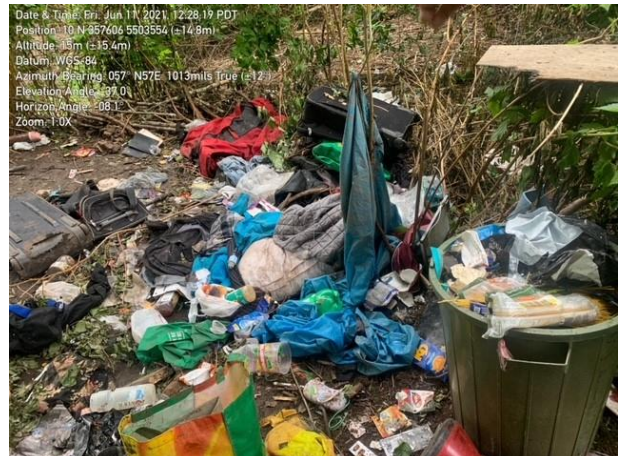
Lazo Marsh WMA: Rebuild of wildlife viewing platform and boardwalk.



Quatse WMA: CAGO enclosure fencing replacement with all natural materials at a previous restoration site.



PQBWMA Englishman River Estuary: COS response to fires and camping within WMA



Baynes Sound - Millard Creek: Homeless Camp

Regional Component of Conservation Lands O&M Provincial Summary Report

2021-22



Baynes Sound - Millard Creek: Homeless Camp



S'amunu WMA: Homeless Camp



S'amunu WMA: IP treatments begin installed with aid from the Coastal Invasive Species Council



Nanaimo River Estuary: Volunteer event with planting upper estuary sites



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South Coast Region

Region: South Coast

Ecological Significance of the Region:

The majority of Lower Mainland Region conservation projects focus on the Fraser River and its tributaries. One of the largest rivers in the world, the Fraser flows from the Rocky Mountains south and west to the Fraser-Puget lowland, and into the Pacific Ocean at the Strait of Georgia. The Fraser Basin watershed drains one quarter of the province. Sand and silt eroded from glacial terraces along its path are deposited as a delta in the Strait of Georgia. This delta is highly productive from an agricultural and human habitation perspective, making the Lower Mainland the socio-economic centre of the province.

The confluence of the Fraser and the Pacific Ocean results in delta marshes, estuaries, and an incredible level of diversity in fish and wildlife populations. The Fraser is the world's largest salmon river, while its estuaries provide critical resting areas for salmon migrating from salt to fresh water. Important year-round habitat for many bird species, the Fraser estuary is also a vital link in the Pacific Flyway, supporting over 1.5 million birds from three continents and 20 countries. The Boundary Bay, Sturgeon Bank, Roberts Bank, and South Arm Marshes Wildlife Management Areas (WMAs) have been designated as Western Hemisphere Shorebird Reserve Network sites. The estuary supports the largest wintering shorebird and waterfowl populations in Canada. The area also provides habitat for significant numbers of raptors and marine mammals.

The South Coast Region contains 23 Conservation Land complexes, administered regionally, including a number of properties owned by The Nature Trust of British Columbia (NTBC).

Summary Statement of Regional Investment:

In 2021-2022 \$99,080 was invested in 19 conservation land complexes in the South Coast region, to assist regional staff and partners in achieving management objectives. Significant investments were made to eradicate invasive species, maintain infrastructure and public access, remove rubbish, and identify ecological restoration opportunities from these conservation lands.

In October 2017, the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) partnered with Ducks Unlimited Canada (DUC), NTBC, and the Canadian Wildlife Service of Environment and Climate Change Canada to initiate the South Coast Conservation Land Management Program (SCCLMP). Modelled off the successful West Coast Conservation Land Management Program (WCCLMP), the goal of the SCCLMP is to provide a more collaborative and integrated approach to the management of conservation lands for the benefit of fish, wildlife, species at risk, and their habitats. In 2021/2022 this program continued to leverage resources to apply a strategic focus to the management of Wildlife

Management Areas in the South Coast. A full-time Coordinator leads the partnership, including overseeing the South Coast HCTF Conservation Lands O&M budget and expanding the capacity of the program by soliciting additional funds and promote community stewardship throughout conservation lands. HCTF O&M funding continues to support the activities of the SCCLMP partnership program.

In 2021 the federal and provincial governments selected the Fraser River Estuary Salmon Habitat (FRESH) Restoration Projects to receive \$5 million from the BC Salmon Restoration and Innovation Fund over a three-year period. These projects are led by DUC in partnership with Raincoast Conservation Foundation, Tsawwassen First Nation, and the Lower Fraser Fisheries Alliance. These projects include the Sturgeon Bank Sediment Enhancement Pilot Project, Alaksen Tidal Marsh Restoration Project, and North Arm Jetty Breaches, which will restore habitat and access to habitat for wild Pacific salmon throughout the Sturgeon Bank WMA, Roberts Bank WMA, and Alaksen National Wildlife Area. In March 2022, Raincoast Conservation Foundation completed the construction of the first of three breaches in the North Arm jetty to facilitate fish passage and transportation of freshwater and sediments to the Sturgeon Bank WMA foreshore; within days of construction works, juvenile salmon were using the breaches to access the foreshore marshes of the Sturgeon Bank WMA! Over the next two years SCCLMP will continue work with each organization to help make each project a success and to look for opportunities to support ongoing conservation land management activities.

Project Highlights:

\$5,258 invested in Bert Brink WMA for property inspection, invasive plant assessment, rubbish removal, and preparation of an ecological restoration plan.

\$9,518 invested in Boundary Bay WMA for property inspections, rubbish removal, invasive plant management, sign maintenance, and engagement with local stakeholders for integrated planning.

\$3,373 invested in Camp Slough Conservation Area for property inspection, invasive species management, and rubbish removal.

\$12,413 invested in Forslund-Watson Conservation Area, including \$7,500 of funding from Together for Wildlife, to control invasive species and work with BCIT students to restore an ephemeral wetland to support at-risk amphibians and other native wildlife.

\$12,154 invested in the Pitt-Addington Marsh WMA to assess land management needs and ecological values, maintain informational signage, maintenance of public access trails and facilities, and discussing with community partners fish habitat restoration opportunities at Addington Point.

\$4,879 invested in Serpentine WMA for tower and trail maintenance, garbage pickup and removal, vegetation maintenance, and invasive plant removal.

\$9,429 invested in Sturgeon Bank WMA and Roberts Bank WMA as part of regional initiatives to support ongoing research into the cause of marsh recession throughout the WMAs.

\$6,049 invested in the Lhá:lt/Harrison-Chehalis WMA for property inspection, rubbish removal, invasive species management, maintenance of property information signage, and integrated shared stewardship with local stakeholders.

\$2,037 invested in the Silverhope Creek Conservation Area for inspection for land management needs, public information sign installation, rubbish removal, and boundary identification.

\$2,000 invested in the Wells Sanctuary Conservation Area for property inspections, invasive plant removal, rubbish removal, and signage.

\$2,000 invested in the Chilliwack River Conservation Area for property inspection, rubbish removal, and maintenance of property information signage.

Conservation Outcomes:

Restoration and enhancement of conservation lands for habitat values ensures that these lands are optimal for use by fish and wildlife that depend on them; approximately 24 hectares of conservation lands were directly restored or enhanced in 2021/2022. Informational signage, indicating property ownership and management partners, serves to demarcate boundaries and to provide the public with the means to contact a land manager to discuss management concerns and issues. Maintenance of access points and facilities on conservation lands ensures that public access will be safe.

Photographs



1. Bert Brink Wildlife Management Area – conservation crew members installing new signage after wildfire.



2. Camp Slough – conservation crew members maintaining bird boxes.



3. Chilliwack River – installing property signage to help curb illegal camping on site.
Example of trespass encampment.



4. Lhá:lt/Harrison-Chehalis WMA – removal of invasive Scotch broom from site.



5. Silverhope Creek – planting native plants in area formerly disturbed by illegal camping.



6. Wells Sanctuary – before and after invasive plant removal on Luckakuck Creek.



7. Roberts Bank WMA – installation of WMA information sign and Wildlife Act regulations signs.



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Thompson Okanagan Region

Region: Thompson Okanagan

Ecological Significance of the Region:

The Thompson Okanagan Region has a dry, continental climate, as it lies in the rain shadow of the Coast and Cascade Mountain ranges. Vegetation varies from Engelmann spruce and lodgepole pine at subalpine elevations, Douglas-fir at lower elevations, and ponderosa pine, bunchgrass, and sagebrush at the valley bottom. These vegetation zones are in relatively close proximity to one another, resulting in extremely rich biological diversity in a small area.

The Thompson and Nicola landscapes in the north and east of the region vary from the Cariboo Mountains in Wells Gray Provincial Park to rolling grasslands and the river valleys of the North and South Thompson Rivers that merge in Kamloops and reach the Fraser River in Lytton. The region also extends beyond into Lillooet and the surrounding Coast Mountains through the Bridge River valley which flows from snowfields in the Coastal Mountains and joins the Fraser River near Lillooet. The landscape has more than 300 lakes, sage-dressed hills, rolling grasslands, looming mountains and alpine valleys. The grassland areas north of Kamloops Lake are recognized for their importance to wildlife, primarily California bighorn sheep, mule deer and many species at risk.

The Okanagan portion of the region, especially in the south, contains large numbers of unique flora and fauna, as it is the northern extension of the Columbia Plateau. Analysis has shown that the South Okanagan is both the top biotic rarity hotspot and the top species richness hotspot in British Columbia. It has more federally listed species at risk than any other area of the province, and more provincially Red-listed and Blue-listed species than elsewhere. Furthermore, with some 303 species of birds recorded from the Okanagan, and similar richness in other animals and plants, many species are found here and nowhere else in Canada (Scudder 2006).

Human development over the past century has resulted in dramatic reductions in native habitat. Grasslands, and the antelope-brush ecosystem in particular, have been greatly impacted. Over the past 15 years, the antelope-brush ecosystem has been reduced in area by over 65%, with current loss estimated at 2% per year. Channelization of the Okanagan River for flood control in the 1950s reduced its associated marshland by 85 to 90%, seriously impacting riparian habitat viability in the region. With population expected to double in the next 25 years, habitat in the Okanagan will become increasingly endangered over time.

The Nature Trust of British Columbia (NTBC) has been working in the Okanagan area since 1971. To date, 25 properties have been secured with the help of many funding partners, totalling over 5,247 hectares. These conservation holdings are particularly contiguous, providing habitat corridors on a landscape scale.

Summary Statement of Regional Investment:

A total of **\$151,273** of Conservation Lands O&M money was invested in the Thompson Okanagan Region in the 2021-2022 fiscal year, and this greatly assisted the conservation partners in addressing key land management objectives (see bolded amounts below). In addition, over \$400,000 in partner funding and in-kind support was invested on TOR conservation lands.

Project Highlights:

- **\$40,000** in T4W funding was invested at nsək'lniw't/McTaggart-Cowan WMA to address impacts and develop management recommendations associated with the 2020 Christie Mountain Fire and subsequent 2021 Thomas Creek Fire, which together burned approximately 50% of the WMA. This project involved a Traditional Ecological Knowledge Keepers assessment, with an additional \$35,000 of in-kind support provided by Penticton Indian Band (PIB). In addition, closure signage was developed and installed in partnership with NTBC, who also supplied labour to download wildlife camera trap data from the network installed in the WMA to monitor human and wildlife use to inform management recommendations. In addition, **\$4,500** was invested at the Skaha Lake Eastside property, located within the WMA, to fund site visits, work with partners, install wildlife cameras, install signage to restrict/mitigate rock climbing access, implement a baseline inventory of bat populations, and conduct invasive species management including survey and mechanical removal.
- **\$20,000** in T4W funding was invested at Swan Lake WMA to conduct a Foreshore Inventory and Mapping project in collaboration with Okanagan Indian Band; this project also included high-resolution drone footage and assessment of Traditional Ecological Knowledge (TEK) information associated with the WMA.
- **\$15,000** was invested at Ginty's Pond Lease, with an additional \$164,000 in partner contribution to support wetland restoration at this site, including project coordination, material purchase, soil contamination investigations, and threat abatement fencing along the southern boundary of the property.
- Approximately **\$5,000** was invested to install an interpretive kiosk at Antlers Saddle Complex, with an additional \$36,000 in partner contributions to support activities at this complex including construction of a second kiosk, signage development, wildlife camera purchase for monitoring human/wildlife use, and intensive fireguard rehabilitation in partnership with PIB and Okanagan and Similkameen Invasive Species Society.
- Close to **\$4,000** was invested to purchase seed mix for ground disturbance restoration associated with the installation of wetland protection fencing in South Okanagan Wildlife Management Area (SOWMA), with an additional \$44,000 in partner contributions to install the 4.0 km of fencing. This project made use of fencing materials purchased using HCTF funds in previous years.

- **\$6,000** was invested at the White Lake Basin Biodiversity Ranch. Primary tasks included site visits, installing wildlife cameras to understand movement corridors for species, invasive species management including survey and mechanical removal, working with the Okanagan and Similkameen Invasive Species Society and National Research Council and other stakeholders to continue an area-based pilot project, fence repairs and removal, and continuation of the photographic monitoring program.
- **\$6,000** was invested at the Okanagan Falls Biodiversity Ranch. Primary tasks included site visits, installing wildlife cameras to understand movement corridors for species, invasive species management including survey and mechanical removal, fence repairs and removal, decommissioning of trail system and restoration back to natural habitat, and continuation of the photographic monitoring program.
- **\$7,855** was invested at the Vaseux Lake (LEA8) – Schneider property. Primary tasks included; site visits, working with partners, updating and implementing conifer thinning (prescription) to improve/restore movement corridors for Bighorn sheep and enhance antelope-brush shrub steppe community, burning piles from conifer thinning and reseeding with native grass seed, planning for invasive plant management to protect this high integrity grassland habitat, continuation of the photographic monitoring program, and review and discussions with Regional District of Okanagan Similkameen (RDOS) staff and contractors regarding monitoring wells and leachate control plans.
- **\$6,250** was invested at the Vaseux Lake – East, West, North. Primary tasks included site visits, installing wildlife cameras to understand movement corridors for species, invasive plant management including surveys and mechanical control, implementing SAR surveys for Antelope Brush recruitment, baseline inventories for Behr’s Hairstreak, and continuation of the photographic monitoring program.
- **\$6,837** was invested at the Vaseux Lake – Emery & Franmar Complex. Primary tasks included site visits, installing wildlife cameras to understand movement corridors for species, invasive plant management including surveys, mechanical control and herbicide application, mechanical control seeding following treatments, working with partners to install a Motus system to track tagged bird species (Lewis’s Woodpecker) using the Vaseux Lake Important Bird Area (IBA), and continuation of the photographic monitoring program.
- **\$2,500** was invested at Salmon Arm Bay (LEA) property. Primary tasks included working with Columbia Shuswap Invasive Species Society and Salmon Arm Bay Nature Enhancement Society to carry out invasive plant work and conducting a shoreline cleanup of rubbish.

Conservation Outcomes:

Each of the conservation lands in the Thompson Okanagan Region has distinct management needs and objectives that reflect the unique landscape and ecology of the area. Numerous conservation

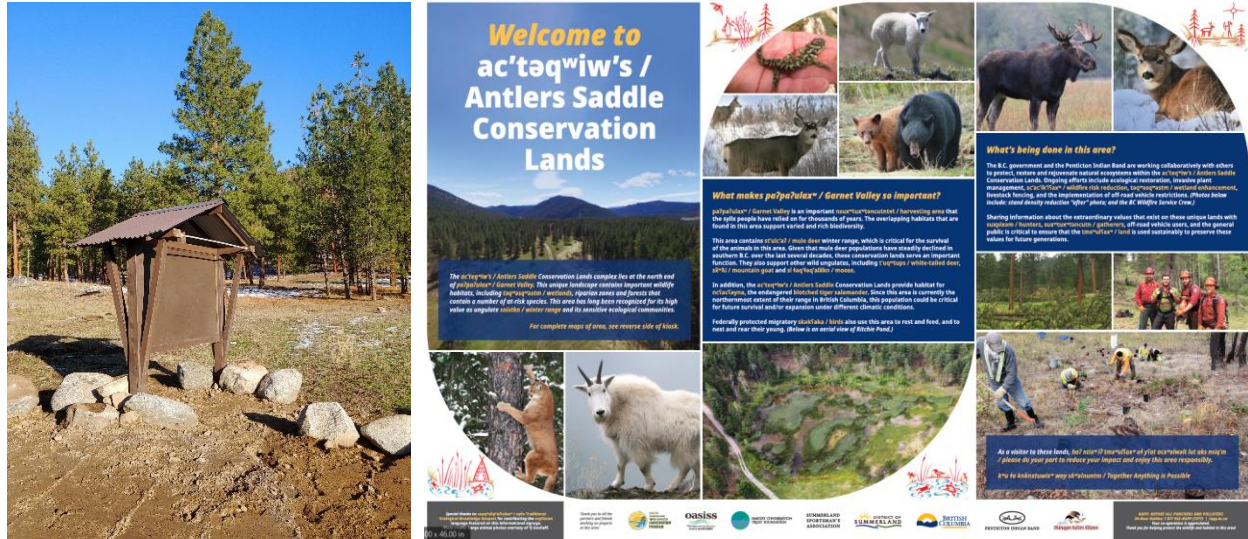
outcomes were achieved on these lands in 2021-2022 using Conservation Lands O&M funding. Over **65 ha** of land were directly or indirectly restored or enhanced through restoration activities and fencing. Many of these outcomes continue to build upon the efforts and investments of previous years. Partner contributions to conservation land management was high in 2021-2022, with over \$400,000 in additional provincial, federal and partner funding and in-kind support attracted to the Conservation Lands Program in the TOR. In particular, these funds facilitated collaborative management and planning projects with Indigenous communities.

On-the-ground restoration and enhancement works were a significant focus for 2021-22, with the completion of several key multi-year projects. After over seven years of planning and engagement, 4.0 km of fencing was installed at SOWMA, providing protection for an estimated 47 ha of water birch rose and wetland critical habitat for species at risk. Significant progress was also made towards wetland restoration at Ginty's Pond Lease. Although excavation has been delayed to 2022 due to severe flooding, accomplishments include 400 m of fencing installed along the southern property boundary for threat abatement to a wetland area of 2.5 ha. Necessary training, engagement, procurement, and planning for excavation also completed at Ginty's Pond Lease. Other on-the-ground work included restoration of approximately 1.2 ha of coniferous woodland habitat at Antlers Saddle Complex that was impacted by fire suppression activities in response to the Mount Eneas Fire in 2018. The amount of partner contribution to the Conservation Lands Program speaks to the importance of these lands in the regional context.

The Nature Trust of BC land management staff worked with various partners to maximize O&M funding at eligible conservation sites. Invasive plant management continued to play a key role in the conservation land management efforts for 2021-2022 season. Approximately 15 hectares of conservation land were mechanically or chemically treated, and 178 hectares of conservation land surveyed for invasive plants.

Photographs

1. Kiosk installation and interpretive signage development at Antlers Saddle Complex.



2. Fireguard rehabilitation work with Pentiction Indian Band at Antlers Saddle Complex.



3. Bird box reinstallation and access management using rock barriers at Dewdrop-Rosseau Creek WMA.



4. Joint helicopter survey of nsək'lniw't /McTaggart-Cowan WMA to assess impacts of Thomas Creek Fire.



5. Fence construction at South Okanagan Wildlife Management Area to protect sensitive wetland and riparian habitat for cattle grazing impacts.



6. White Lake Basin Biodiversity Ranch: (a) reclamation of old ranch road, (b) banding Burrowing Owls (BOCS Partnership), and (c) installing Western screech-owl nest boxes.



7. Okanagan Falls Biodiversity Ranch: (a) removing old barbed fence, (b) installing new livestock fence with Thomas Ranch Partner



8. Skaha Lake Eastside: (a) crew stumbled across an empty bear den during trail inventories, (b) installing a wildlife camera, and (c) uninstalling and carrying out recreational equipment.



9. Vaseux Lake – Emery & Franmar Complex: (a) assembling Motus radar system with Canadian Wildlife Service, (b) installing antennae to Motus radar system with Canadian Wildlife Service, and (c) invasive species removal.





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Kootenay Boundary Region

Region: Kootenay/Boundary

Ecological Significance of the Region:

The Kootenay region is world renowned for its scenic beauty and biological diversity. Forest, shrub, grassland and wetland ecosystems provide habitat for a wide variety of plant and animal species, including many species at risk.

From the heights of the Rocky Mountain Range, there are vantage points where you can overlook the entire expanse of the East Kootenay region of south-eastern British Columbia. The western horizon, viewed from these vantage points, is profiled by the Purcell Mountain range which is separated from the Rocky Mountains by an enormous valley known as the Rocky Mountain Trench. Two great rivers begin here; the Kootenay flowing south through dry grasslands, with signs of historic wildfires, and the Columbia flowing north through a series of long valley-bottom lakes and lush wetlands. This great river eventually swings south at Boat Encampment and continues south between the Monashee and Selkirk Mountain ranges in the West Kootenay and into the state of Washington at Waneta. Another important river, the Elk, begins its journey in the eastern Rocky Mountains and winds its way along towering cottonwoods to join the Kootenay immediately south of the small community of Baynes Lake.

The geographic diversity of the Kootenay landscape along with wide variations in climate has created conditions and habitats that support rare plant life, productive aquatic systems, and important populations of elk, deer, Rocky Mountain bighorn sheep, mountain goat and moose. Such abundant wildlife naturally attracts predators and consequently, wide-ranging carnivores are still common in the Kootenay's. Additionally, over 270 species of birds make use of the region, many on their migratory travels along the Pacific flyway.

From a rare species perspective, the grasslands, dry forests, montane forests, scattered wetlands, and cottonwood habitats in the Kootenay region provide unique habitats that support rare species such as the American badger, Swainson's hawk, Northern leopard frog and Lewis' woodpecker.

However, the low elevation valleys of the Kootenay's, which provide some of the most important habitat for a wide spectrum of wildlife, continue to be developed and attract increased levels of human settlement. In turn, this creates additional pressures on the landscape and impacts wildlife habitat and biodiversity values. Fortunately, the Ministry of Forests, Lands, Natural Resource and Rural Development (FLNRORD) along with The Nature Trust of British Columbia (NTBC) have worked for decades to conserve ecologically significant habitats within the region. As a result, dozens of properties have been secured and, when combined with properties conserved by other land trusts and agencies, have resulted in a significant area of the Kootenay landscape being conserved in perpetuity.

Summary Statement of Regional Investment:

In 2021-22, \$164,197 was invested into 23 NTBC and FLNRORD conservation property complexes in the Kootenay/Boundary region, to assist regional staff and partners in achieving management objectives.

The funding was used for a wide variety of operations and maintenance activities, the highlights of which are outlined below.

Project Highlights:

Project highlights for the Kootenay/Boundary region during the 2021-22 year, include:

- \$16,695 was invested into the **Bummers Flats** Conservation Complex through a variety of activities in 2021/22. Invasive plant infestations (terrestrial and aquatic) were mechanically treated by FLNRORD staff, NTBC staff, and staff from the East Kootenay Invasive Species Council (EKISC). In particular, an innovative Pollinator Meadow Restoration Project on a levee in the Bummers wetlands was continued. 2021 showed promising results with native plant establishment, and the identification of a Silver-spotted skipper larvae on the site. This was year 2 of 5 of the project, with the Fish and Wildlife Compensation program (FWCP) recently approving additional funding for the second straight year of the project. HCTF contributions have been used for NTBC staff support and some materials for the project. Due to the initial success of this project, the region is considering using the same contractor (Kinseed Ecology) to mimic this project on the levee at Wasa Sloughs, which is experiencing the same spotted knapweed issues.

Another exciting project at the Bummers Flats Conservation Complex was the continuation of the thinning work under the Habitat Enhancement Prescription (HEP), completed in 2020. Together for Wildlife (T4W) funding provided another \$4,818 towards this work in 2022, where an additional 2ha were thinned/piled/burned, and another 10ha of area had remnant piles burned. Over the last 3 year cycle, this area has been prescribed under a HEP, priority areas have been identified, and over 12ha have been treated to promote native vegetation growth ungulate foraging, increase sightlines for predator avoidance, and to protect against stand replacing wildfires.

- \$9,039 of HCTF funding was invested into the **Columbia Lake Westside** Conservation property in 2021/22, where funding went towards the development of a Wildfire Response Plan, the planning and implementation of a wetland enhancement project, fence repair, and general property inventory. The Wildfire Response Plan, completed with input from the BC Wildfire Service, was designed in a way that would be valuable to BCWS in the event of a wildfire. The plan, written by Colleen Ross, has been distilled down to include very basic and important objectives and values that should be considered in the event of a wildfire. This plan will be used as a template for other conservation area complexes

moving forward. A wetland enhancement project was initiated in 2021-22, which spans both NTBC and FLNRORD conservation parcels, along Sun Creek. Planning and earthworks began in the fall of 2021, with planting, fencing, etc. planned for the spring of 2022. This project has included support and involvement from many partners, including local First Nations.

- \$8,214.07 of HCTF funding was invested into the **Duncan Flats** Conservation Complex in 2021-22. Funding, inclusive of \$4,503 from T4W, was used to address access management issues within the complex, install signage, treat invasives around wetland enhancement sites, and inventory the complex. The T4W funding was used to install two large metal access gates on DL 881, which restricted vehicle access into the parcel, leading to the restriction of firewood cutting, camping, and the spread of invasive plants. A contractor with an excavator was hired to assist with the gate install. Additionally, the NTBC crew provided 2 days of time to brush saw thistle around wetland enhancement sites, and completed an infrastructure inventory in the complex. Wetland and invasive plant work supported efforts led by Kootenay region FWCP section staff.
- \$11,603.46 of HCTF funding was invested into the **Grave Prairie (Big Ranch)** Conservation Complex in 2021/22. HCTF financial contributions went to support the large 5-year Big Ranch Ecosystem Enhancement Project (BREEP), which is primarily funded through a Columbia Basin Trust (CBT) Ecosystem Enhancement Program grant. The project proponents are the Sparwood and District Fish and Wildlife Association (SDFWA), who are working closely with NTBC and FLNRORD for project guidance, approval and professional support. The BREEP project focused on slashing/thinning work in 2021/22, with 13.9ha of coniferous forest being slashed/piled/burned, and approximately 2ha of selective aspen stems being thinned. Monitoring plots related to the fertilization project were revisited, and results were incorporated into 2022 treatment planning. Outside of the BREEP, fencelines were maintained, aspen exclosure fencing was repaired, wildlife cameras were monitored and signage was kept current.
- \$8,753.29 was invested into the **Redfish Creek** Conservation Complex in 2021-22. The majority of funding spent on this site in 2021-22 was from T4W. This project focused on the preparation and sourcing of materials for the repair of an eroding stream bank along Redfish Creek. The erosion was threatening important riparian habitat, downstream infrastructure, and the outflow of the Redfish Creek spawning channel. In 2021, an engineer was hired to develop drawings/plans for the repair project, with a focus on keeping habitat features in place (i.e. large overhanging cedar tree). Additionally, all of the required armour rock was sourced and delivered to site. The repair itself is scheduled to take place in August of 2022.

- \$4,300.00 was invested into the **Wasa Sloughs** Conservation Complex in 2021-22, with some T4W funding going towards installation of a gate and rail fence along a levee, to restrict cattle from accessing sensitive riparian areas and areas infested with spotted knapweed. The plan is to fence the boundary of the Wasa Slough parcel in 2022 to completely eliminate cattle and motorized access from the NTBC conservation parcel.
- \$11,847 was invested into the **Wycliffe** Conservation Property Complex in 2021-22. A fencing contractor was hired with T4W funding to complete an in-depth repair of 1.2 km of fencing, which protects the provincial conservation parcel from domestic livestock and motorized trespass. This contract involved the replacement of many posts and the re-stringing of new wire. The fence was built to “wildlife friendly” specifications, with many wildlife crossing locations (staple-locks) installed.
- \$12,102 was directed to the **Newgate** (Earl – Bar 40) Conservation Property in 2021-22. The majority of funding, supplied by T4W, was used to repair the northern boundary fenceline, which restricts cattle access from the adjacent crown range tenure. 1,800 m of fenceline was repaired, and a detailed fence assessment of the entire property was completed, to help guide management efforts over the next funding cycle.
- \$16,240 was directed to the **Premier Ridge** Conservation Complex in 2021-22. The majority of funding, supplied by T4W, went towards a habitat enhancement project, focused on the thinning of 8.57ha of overgrown coniferous forest. The project aims to increase forage for ungulates through promoting native vegetation growth, while outcompeting invasives, and improving wildlife sightlines for predator avoidance.
- \$6,500 was directed to the **Creston Valley Wildlife Management Area** in the 2021-22 season. HCTF O&M contributions went towards the mowing of vegetation along water control dikes, sign installation, management of water levels, invasive species removal, and annual inspections of water control structures.
- \$4,291.33 of T4W funding was allocated to the chemical treatment of invasive species on HCTF O&M eligible properties in 2021-22. Chemical herbicide applications were completed on approximately 4.5ha, and were recorded and input into the provincial Invasive Alien Plant Program (IAPP) database to allow for continued monitoring of infestations and evaluation of management effectiveness over time. An additional approximation of 5ha were mechanically treated by NTBC and FLNRORD staff.

Conservation Outcomes:

The 2021-22 season led to the continuation and completion of many on-the-ground operation and maintenance activities on Kootenay region conservation lands. These activities included, but were not limited to; infrastructure inventory and maintenance, repair and replacement of range

fencing, development of prescriptions/plans, as well as, habitat restoration, monitoring and inventory activities.

Approximately 30km of fenceline was assessed and repaired by either the NTBC conservation crew or a contractor to reduce trespass of livestock and unauthorized motor vehicle use on sensitive conservation properties. Conservation property complex boundary signage was installed in key locations throughout the region to inform the public of land ownership and protect the important conservation values unique to each property.

NTBC and FLNRORD staff continue to apply for funding to supplement HCTF O&M funding on conservation lands in the Kootenay Region. 2021 was a very busy year, as the region continued on with two large multi-year projects, inclusive of multiple partners (Wycliffe and Grave Prairie). Additional to the multi-year projects, the Kootenay region was also the successful recipient of provincial Together for Wildlife funding for projects on nine HCTF eligible conservation properties.

Mechanical and chemical invasive plant treatments and re-seeding efforts were undertaken on many properties (approximately 10ha), intended to restore compromised ecosystems to native vegetative conditions. Significant effort was also directed to assisting in the establishment of healthy native vegetation on recently restored wetlands, including riparian planting, seeding, and enclosure fencing installation and repair. NTBC and FLNRORD continue to trial and assess innovative approaches to invasive plant management in region, including projects such as the Bummer Flats Pollinator Project.

Some funding was also invested into future conservation by undertaking important planning activities, including property assessments, infrastructure inventory, and invasive plant inventories. Results assisted in adapting the new (2022-2025) 3-year HCTF work plan on Kootenay/Boundary conservation properties, and ensuring management activities are meaningful and effective.

Approximately 20 hectares of conservation land was restored in 2020-21 with HCTF O&M and T4W funding, through thinning projects under prescription and invasive plant treatments. This recently treated area will enhance habitat value in the Kootenay region, while reducing the risk of potential damage from wildfires. This metric does not include the amount of conservation area protected through the upkeep, replacement and installation of boundary fencelines, access gates, etc.

Photographs



Figure 1: NTBC Crew member installing game camera in an ER block – Grave Prairie
Figure 2: Crew member identifying a plant around a wetland enhancement site – Cherry Creek

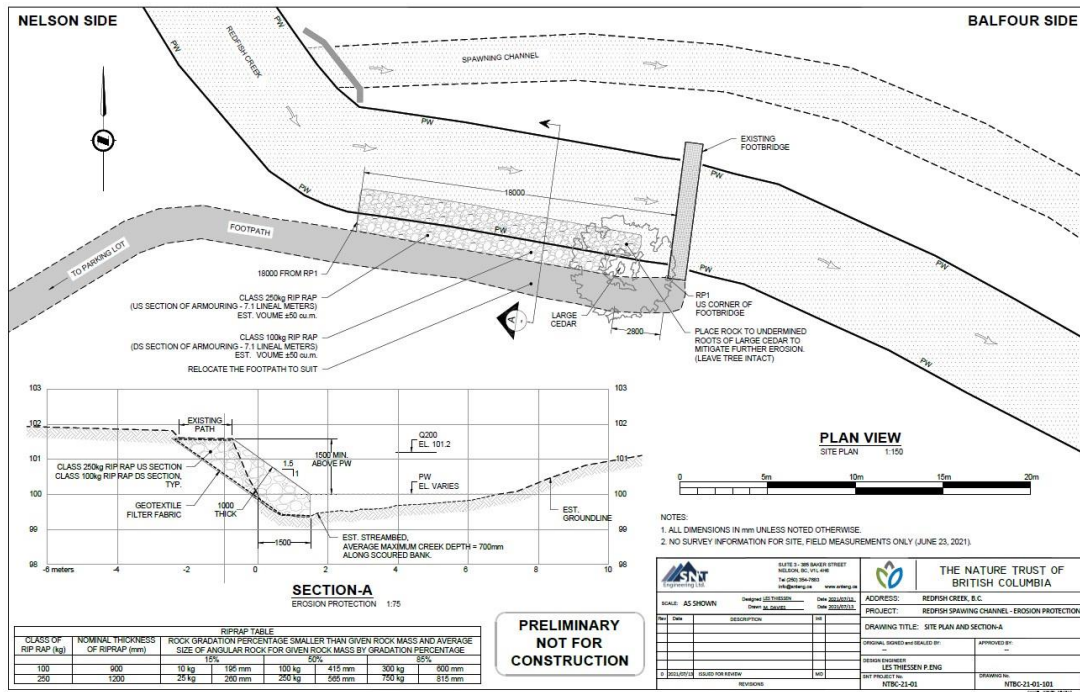


Figure 3: Engineered drawing for Redfish Creek – Stream bank repair project

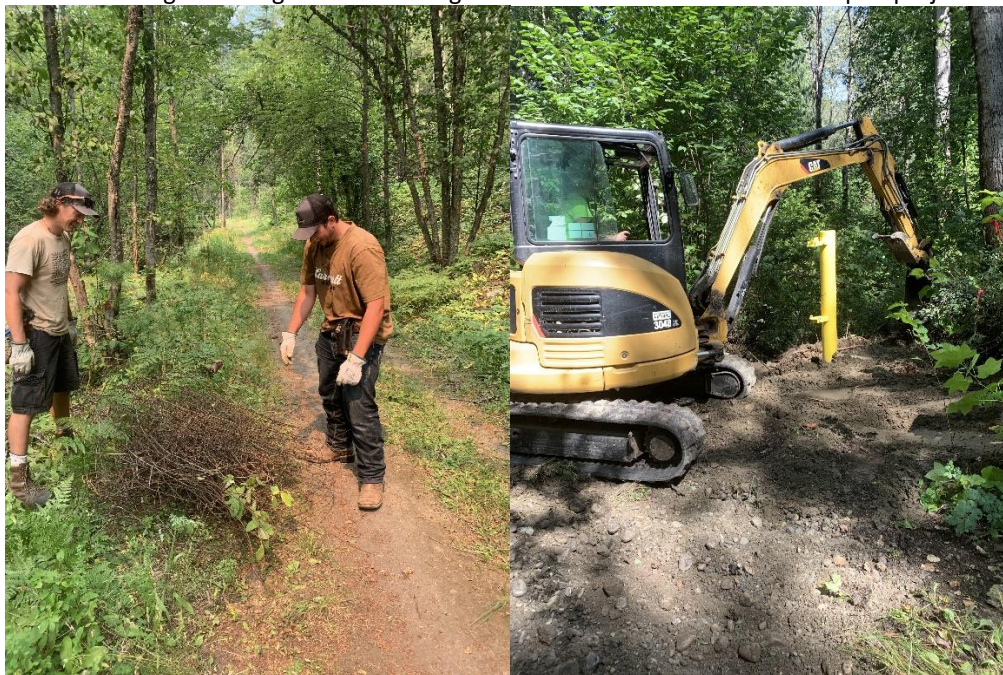


Figure 4: Removal of old page wire from the Slocan Lake Conservation Property
Figure 5: Installation of an access gate – Duncan Lardeau.



Figure 6: Photo collected from game cameras installed and monitored at the Gold Creek – Strauss Property.



Figure 7: Assisting FWCP section staff in control of Yellow Flag Iris: Walter Clough
Figure 8: Thistle control around wetland enhancement sites – Duncan Lardeau



Figure 9: Signage replacement – Waldie Island
Figure 10: Kiosk removal from Waldie Island



Figure 11: Crew reviewing game camera photos while at campsite during a trip to the West Kootenays

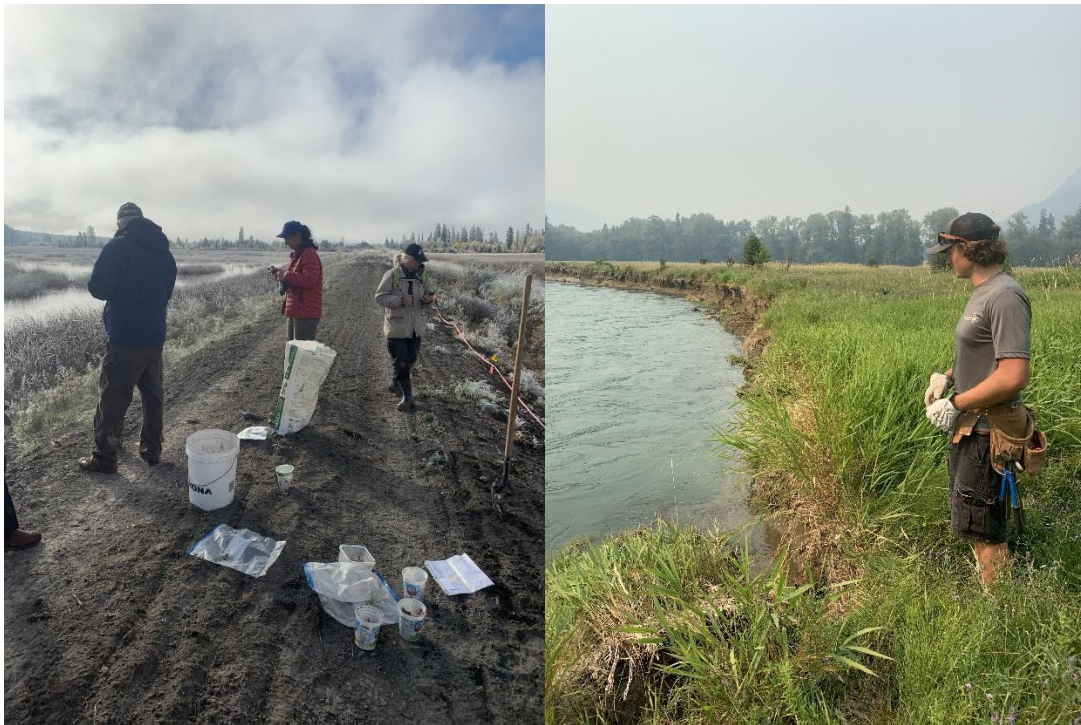


Figure 12: Re-vegetation efforts for a pollinator meadow restoration project – Bummers Flats

Figure 13: Assessing erosion issues and fence condition – Duncan Lardeau



Figure 14: Picture of a treated thinning block at Bummers Flats, with a biodiversity pile created for habitat.



Figure 15: NTBC Crew assessing the presence of invasive pumpkinseed fish in George's Pond – Bummers Flats Conservation Complex



Figure 16: Cattle exclusion fencing installed at Wasa Sloughs

Figure 17: Danger Tree Assessment at the Redfish Creek Conservation property



Figure 18: Repaired fencing and access gate on the Bummers Flats Conservation Complex.



Figure 19: Photo of a treated ER site at the Grave Prairie (Big Ranch) Conservation Complex.



Figure 20: Photo of a treated ER site at the Pommier property in the Premier Ridge Conservation Complex.



Figure 21: Property inspection at the Bergenham property in the Columbia Wetlands WMA

Figure 22: Wetland enhancement earth works – Sun Creek property on the Columbia Lake Westside
Conservation Complex.



Figure 23: Wigwam Flats – Site assessment and planning for future restoration project (thinning)



NATURE TRUST
BRITISH COLUMBIA



Cariboo Region

Region: Cariboo

Ecological Significance of the Region:

The Cariboo Region is a diverse landscape, ranging from the Coastal Mountains, to the vast dry grasslands of the Chilcotin Plateau, to the interior rainforest of the Cariboo Mountains. There are three main rivers within the region include the Fraser, Chilcotin, and Quesnel Rivers. These varied terrains and conditions result in an equally varied diversity of fish and wildlife.

The Cariboo Region contains 6 Conservation Land complexes, administered regionally, including several properties owned by The Nature Trust of British Columbia (NTBC).

Summary Statement of Regional Investment:

In 2021-22 \$33,711 was allocated to the 6 conservation land properties in the Cariboo, to assist regional staff and partners in achieving management objectives, including assessments, maintenance for safety and ecological integrity, and wildlife surveys.

Project Highlights:

\$3,933 was invested in the Chilanko Marsh WMA conservation area to assess the property for safety and ecological concerns. The perimeter fence and signage were inspected and maintained where needed. A breeding bird survey was completed, and a flight was undertaken to confirm the integrity of the fence, that gates were closed, and livestock not present.

\$10,410 was invested in the Chilcotin Lake & Marsh conservation area to complete the perimeter fence and to assess the property for safety and ecological concerns. Property information signs were installed or repaired as needed, two large new signs were designed and prepared for installation this coming summer, a breeding bird survey was completed, and a flight was undertaken to confirm that fences were intact, gates were closed, and livestock were not present.

\$475 invested in the Dale Lake conservation area to conduct a property assessment for safety and ecological concerns, and maintenance of property information signage.

\$475 invested in the Tautri Creek conservation area to conduct a property assessment for safety and ecological concerns, and to maintain property information signage.

\$4,745 was invested in the Hanceville conservation area. A cleanup of the property was initiated, debris from the burned hatchery (2017 fire) was removed, and further cleanup of an old dumping area was undertaken. Wildfire burned fences (~2.23km) were rebuilt with additional Provincial funds (\$79,070).

\$1,715 was invested in the Knife Creek conservation area. Fence maintenance was undertaken, and a bird survey was completed.

\$11,603 of additional Together for Wildlife funds was spent on producing a summary report on the ecological values for Dale Lake, Knife Creek, and Deer Park properties.

Conservation Outcomes:

Please include a summary paragraph on the conservation outcomes you have achieved within your region in 2020-21 with Conservation Lands O&M funding. Provide an estimate of the **hectares of land restored or enhanced** with O&M funding in your region. The type of activities that could be included are invasive species control, planting with native species, thinning to create open forest, area of wetland restored/created, etc. This will not apply to all sites, as not all activities include an enhancement or restoration component. We are just looking for a **rough estimate**, e.g. if invasive species were controlled on roughly a quarter of a given property, then include a quarter of the total hectares.

The 2021-22 field season included several land management activities on Conservation Lands within the Cariboo Region.

Fence maintenance at Chilcotin Lake & Marshes, Chilanko Marsh WMA, and Knife Creek serves to protect sensitive habitat areas from inappropriate use. There is ~3.5 km of fence at Chilanko Marsh, ~21 km of fence at Chilcotin Lake & Marshes, and ~3.3 km at Knife Creek to maintain. Assessments of the ecological attributes and issues specific to each property form the basis for activity planning for the following field seasons.

Chilcotin Lake & Marsh fencing project is now complete, and the entire conservation land complex is fenced. A section of 800m of fence was rebuilt this last year. Informational signage, indicating property ownership and management partners, with contact information was posted on properties where appropriate. This serves to demarcate boundaries and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Photographs



1. Chilanko Marsh – Fences assessed and maintained to prevent livestock access. Signs installed and repaired.



2. Tautri Creek – Infrastructure and property inspected. Site condition assessed for ecological condition, post-wildfire.



3. Chilcotin Lake and Marsh –Fences inspected and repaired for livestock exclusion. Signs repaired as needed.



4. Chilcotin Lake & Marshes - Aerial flights looking at fences and for livestock.



5. Hanceville – clean up



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Skeena Region

Region: Skeena

Ecological Significance of the Region:

The Skeena Region covers approximately one third of the province of British Columbia. It is a highly varied landscape, characterised by mountainous terrain, interspersed with large plateaus, a multitude of lakes and several of the province's largest rivers including the Skeena, the Nass and the Stikine.

The Skeena Region includes BC's North Coast from the Coast Mountains to the Pacific Ocean. This area is rich in biological diversity and noted for the Pacific Flyway, an important migration corridor for birds. Large rivers, such as the Nass and the Skeena, flow into the Pacific Ocean, providing critical estuarine habitats. The Skeena Region's extensive wilderness areas provide habitat for a wide variety of wildlife. Both Black and Grizzly Bears occur here, and salmon are abundant in the major rivers and tributaries.

The Skeena Region contains 8 Conservation Land complexes, administered regionally, including a number of properties owned by The Nature Trust of British Columbia, a Wildlife Management Area, and a Wildlife Habitat Management Area.

Summary Statement of Regional Investment:

In 2021-22 **\$16,880.00** was allocated to 8 properties in the Skeena, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$4,345.00 invested in the Alice Arm conservation area for property inspection and manual treatment of invasive plants, especially giant burdock in riparian areas (approximately 8 hectares).

\$1,600.00 invested in the Kitsumkalum Lake – Nelson River conservation area for property inspection, access and safety evaluation, maintenance of property signage, garbage removal, and monitoring for invasive plants.

\$1,250.00 invested in the Lakelse Lake – Mullers Bay conservation area for property inspection, access and safety evaluation, boundary sign maintenance, shoreline rubbish removal.

\$1,250.00 invested in the Lakelse River conservation area for property inspection, maintenance of trail signs, and monitoring for invasive plants. In-person meeting with trail stewardship representative was postponed for the year, due to COVID concerns.

\$3,435.00 invested in the Nadina River Valley – Owen Lake conservation area for property inspection, and sign maintenance. Invasive plant surveys were conducted by a contractor and manual treatment was completed.

\$2,000.00 invested in the Hubert Hill conservation area for native shrub and herb planting (77 plants) and site work including yellow salsify and thistle weeding, watering established restoration plantings, sign replacement, fence line inspection and maintenance and repair of juniper exclusion cages. A brief report was also completed summarizing site maintenance priorities to inform for future investments.

\$3,000.00 invested in the Todagin Wildlife Management Area (WMA) to complete an assessment of an enhancement projects for Stone's sheep which would inform future projects in the WMA.

Conservation Outcomes:

The 2021-22 field season resulted in management of a number of Conservation Lands within the Skeena Region, including evaluation of ecological attributes and safety concerns, which guide activity planning for ongoing land management.

Informational signage, indicating property ownership and management partners, with contact information was posted and maintained on properties where appropriate. This serves to demarcate boundaries to protect habitat values from inappropriate public usage, and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Site restoration of Hubert Hill, near Telkwa, is ongoing. Success is being achieved with removal of invasive plants and re-introduction of native species.

In 2021-2022, approximately 12 hectares of conservation land was restored through various activities in the Skeena Region.

Photographs



1. Alice Arm – manual management of invasive plants (giant burdock) in riparian areas.



2. Lakelse Lake – Mullers Bay – Extensive rubbish removed from shoreline. Property is located on a popular recreation lake.



3. Lakelse River – trail stewardship signs maintained. Multi-use recreation trail monitored for invasive plants. Property assessed for ecological and safety concerns.



4. Nadina River Valley – Invasive plants treated manually. Wildfire area assessed for ecological recovery.



NATURE TRUST
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Omineca Region

Region: Omineca

Ecological Significance of the Region:

The Omineca Region encompasses a large portion of northern British Columbia, with a diversity of landscapes ranging from the broad flat pine forests of the Central Plateau to the rugged peaks of the central Rocky Mountains. This Region includes the highest mountain in the Canadian Rockies, Mount Robson (3954 m).

The Omineca Region encompasses the headwaters, or portions of the headwaters, of several provincially important rivers, including the: Fraser, Nechako, Pine, Finlay, Parsnip and Stuart. Within the drainages of these rivers lie several regionally important lakes and the Province's largest reservoir, Williston Lake which lies behind the W.A.C. Bennett Dam. The rivers and their tributaries provide spawning grounds for Chinook, Coho, and Sockeye Salmon. Arctic Grayling, White Sturgeon, Rainbow, Bull and Lake Trout, as well as several species of whitefish, suckers, minnows and Burbot, all live within the Omineca Regions lakes and streams. One of the highest valued recreational rainbow trout fisheries is in the Stellako River, which in 2011 became the Omineca Regions first Wildlife Management Area. Clear, cold mountain streams provide necessary habitat for Blue Listed Bull trout in the Omineca and the large meandering Nechako and Fraser Rivers are home to Red Listed White Sturgeon.

Regionally important wetlands, such as those on the Hominka and in the Cranberry Marsh / Starratt WMA, provide much needed rest and refueling stops for a number of migratory birds. Populations of American White Pelicans nest on some of the region's lakes and White Swans winter on several rivers. The northern extent of Sharptailed Grouse range occurs on southwest facing meadows in the southern portion of the region and in the agricultural lands local breeding groups of Long-billed Curlews and Sandhill cranes can be found in the spring.

The largest herds of Mountain Caribou left in the Province reside in the mountains on the eastern side of the region, and in the north populations of Northern Caribou still roam. Throughout the Omineca region there are Moose, Grizzly bear, Black Bear, Fisher, Marten, Lynx, Wolf, Mountain Goat, and Mule Deer, with local populations of Stone Sheep, Elk and White Tail Deer and Cougar where snow packs are thinner. Rare plant associations, ecosystems and habitats are scattered across the Omineca bolstering regional biological diversity, including the northern extent of Whitebark pine and Douglas fir, and the largest population of Haller's Apple moss in the world, as well as most known locations of Crumpled Tar Paper Lichen.

Given the highly diverse and geographically large area that the Omineca region covers, it contains relatively few Conservation Lands. Only 6 such areas are administered regionally, and they cover a small selection of the habitats that can be found regionally.

Summary Statement of Regional Investment:

In 2021-22, \$34772.00 was allocated to 6 conservation properties in the Omineca, to assist regional staff and partners in achieving management objectives with an additional \$866.00 from FLNRORD base and \$15000.00 from the Village of Valemount.

Project Highlights:

\$28,310.00 invested in the Cranberry Marsh / Starratt WMA with and additional \$15,000 for bridge manufacture contributed by the Village of Valemount through funding from Resort Municipality Initiative, and Ministry of Tourism, Arts, Culture and Sport. Ongoing activities include Boundary identification, replacement of signs that are in disrepair, community engagement, management planning, trail assessment, minor repair of trail infrastructure, implementation of invasive plant management plans, and seasonal inspections. FLNRORD administered a contract for bridge materials manufacture and transport, based on designs developed under contract the previous year. Due to manufacturing delays the installation of the stream crossing will occur in 2022, in partnership with the Village of Valemount. Funding was allocated from O&M 2021 for installation and was not spent.

\$2913.00 invested in the Stellako River WMA for property inspections and garbage removal from public access points.

\$500.00 invested in the Joanne Lloyd property for invasive species control and removal, infrastructure maintenance, and seasonal inspection. Communication with Ministry of Transportation and Infrastructure regarding highway upgrades adjacent to the property will continue until the project is completed in 2022. Garbage was removed from public access points.

\$612.00 invested in the North Nechako Tyee conservation property, to conduct management and safety inspections, monitor for invasive species, and maintain informational signage.

\$1237.00 invested in the Mount Robson Ranch property to assess property condition, needs, and public usage. Perimeter signage was installed and maintained as required. Wildlife cameras installed in 2020 were monitored to gain information on wildlife usage. \$866.00 was allocated to the camera installation from FLNRORD base travel budget.

No HCTF O&M funds were invested this year at the Natasha Boyd property. Signage has been developed but acquiring images from community partners has not been completed. Anticipate completion and installation of newly developed signage in 2022. Site visit was coupled with Mount Robson Ranch site visit.

Conservation Outcomes:

Maintenance of infrastructure, installation of signage, site inspections/visits and trail maintenance were undertaken by The Nature Trust of British Columbia and FLNRORD staff. Fisheries management continues to be a priority at the Stellako River WMA with increased effort from Government being spent. Management Plans for Stellako and Cranberry Marsh / Starratt are under review.

FLNRORD contracted the manufacture and transport of materials for the replacement of one foot bridge along the walking trail at Cranberry Marsh. The new foot bridge will be installed in 2022, in partnership with the Village of Valemount. The two remaining replacement stream crossings are anticipated to be manufactured and installed between 2022-24.

Invasive plant management continues to be a focus on priority areas of concern and significant reductions of invasive plants have been achieved at Cranberry Marsh / Starratt, Stellako, and Joanne Lloyd. Implementing invasive plant management plans is ongoing, in conjunction with the Northwest Invasive Plant Council. Biological control continues at the Cranberry Marsh / Starratt for Spotted Knapweed and mechanical removal of invasive plants over 0.0325 ha (14 garbage bags) in the marsh and 0.004ha in the Joanne Lloyd WMA.

Also of note, there was a slope failure in 2021 on Highway 16 that has impacted the Cluculz Lake (Section 16) Conservation Land adjacent to the Joanne Lloyd property. Site visits indicated substantial works were needed to mitigate impacts to the property. Mitigation activities were undertaken in the form of revegetation and sediment control. Needs for additional vegetation planting, repair and/or removal of mitigation measures will be re-assessed in 2022/23.

Photographs



1. Cranberry / Starratt Marsh – Assessing foot bridge for replacement (new foot bridge has been manufactured and will be installed in 2022). Trails and habitat assessed for safety and ecological integrity.



2. Stellako River Wildlife Management Area – Boundary signs installed and maintained. Rubbish removed from access points. Property inspected for safety and ecological issues. Identified permitting issues around layout works for Blackwater Gold transmission line.



3. Mount Robson Ranch – Property assessed for safety and ecological concerns. Property monitored for wildlife usage. Boundary signs maintained.



4. Natasha Boyd – Property assessed for safety and ecological concerns. Signage maintained.



5. Joanne Lloyd - Property assessed for safety and ecological concerns. Signage inspected and maintained. Highway failure and mitigations works with MOTI at adjacent Cluculz Lake (Section 16) Conservation Land.



NATURE TRUST
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Northeast Region

Region: Northeast

Ecological Significance of the Region:

The Northeast Region of British Columbia is located between the Rocky Mountain foothills and the Alberta Plains.

This region consists of the Peace River and Liard River drainages of the Arctic watershed, featuring plateaus, plains, prairies, and lowlands lying east of the Rocky Mountains. Areas at higher altitudes are poorly drained, resulting in extensive muskeg areas. The region is characterised by boreal forest with critical wetlands and lakes interspersed throughout.

Since the 1950's, the Northern Region has experienced rapid development of oil and natural gas resources, resulting in increased fragmentation of this landscape. A number of Class 1 wetlands provide critical habitat for numerous waterfowl.

Summary Statement of Regional Investment:

In 2021-22 \$52,140 was spent on 6 project areas in the Northeast, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$5,823.00 invested in the Boundary Lake conservation area for property assessment, maintenance and inspection of water control structures, review of industrial plans and activities on site, and invasive plant management.

\$3,633.00 invested in the Comstock Marsh conservation area for property assessment and maintenance and inspection of water control structures. Large information signage was installed and perimeter signs maintained.

\$2,767.00 invested in the Dunlevy Creek conservation area. The property was assessed for safety and ecological issues. Two large information signs were installed, and perimeter signs maintained. Conifer seedling ingrowth was removed on 16 hectares of former hayfield, to maintain ungulate foraging habitat.

\$3,479.00 invested in the Fort St. John Potholes conservation area for property assessment, maintenance and inspection of water control structures, fence inspection, and property boundary signage. A large informational sign was produced and installed.

\$25,199 invested in the McQueen Slough conservation area. In addition to this HCTF contribution, another \$11,500 was provided by the province. Most project funds this year were used to support the development of a Management Plan (following provincial template) for the conservation area. The property was monitored for site safety and security issues. Water control structures were managed and maintained for optimal water levels. Potential trail improvements were assessed and mapped for further consideration. Invasive plants were monitored and treated as needed.

\$6,596.00 invested in the Worth Marsh conservation area for property inspections, maintenance of property signage, maintenance and inspections of the water control structure, and review of oil and gas industry activities adjacent to the conservation area. Canada thistle was removed from the water control structure area.

Conservation Outcomes:

The 2021-22 field season included a number of important land management activities on conservation lands in the Northeast Region, ranging from habitat restoration to maintenance of infrastructure, working to ensure that habitat values are maintained or enhanced, and that public access to these conservation lands is safe and appropriate.

Informational signage, indicating property ownership and management partners, with contact information, was posted and maintained where appropriate and required. This serves to demarcate boundaries to protect habitat values from inappropriate usage, and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Property assessments, including evaluation of the ecological attributes and issues specific to each property, form the basis for activity planning for the following field seasons.

Over 16 hectares of land at the Dunlevy Creek Conservation Area was kept clear of conifer seedlings, to maintain ungulate foraging habitat.

At the Donaldson Acquisition, invasive plants were assessed at the site and treated (as required) by DUC staff. This operational outcome was still met but did not require HCTF project dollars to complete. 0.2844 ha were chemically treated to remove invasive plants (namely Canada Thistle).

Photographs



1. Worth Marsh – Water control structure inspected and beaver debris removed. Invasive plants manually removed.



2. Dunlevy Creek – New informational signs installed. Conifer seedlings removed to prevent ingrowth in ungulate forage area.



3. Comstock Slough – New informational sign installed. Rubbish removed from access points.



4. Fort St. John Potholes conservation area. New project sign installed. Perimeter fencing inspected. Water control structure inspected and cleared of debris.



5. McQueen Slough – Water control structures inspected and maintained. Beaver debris removed.