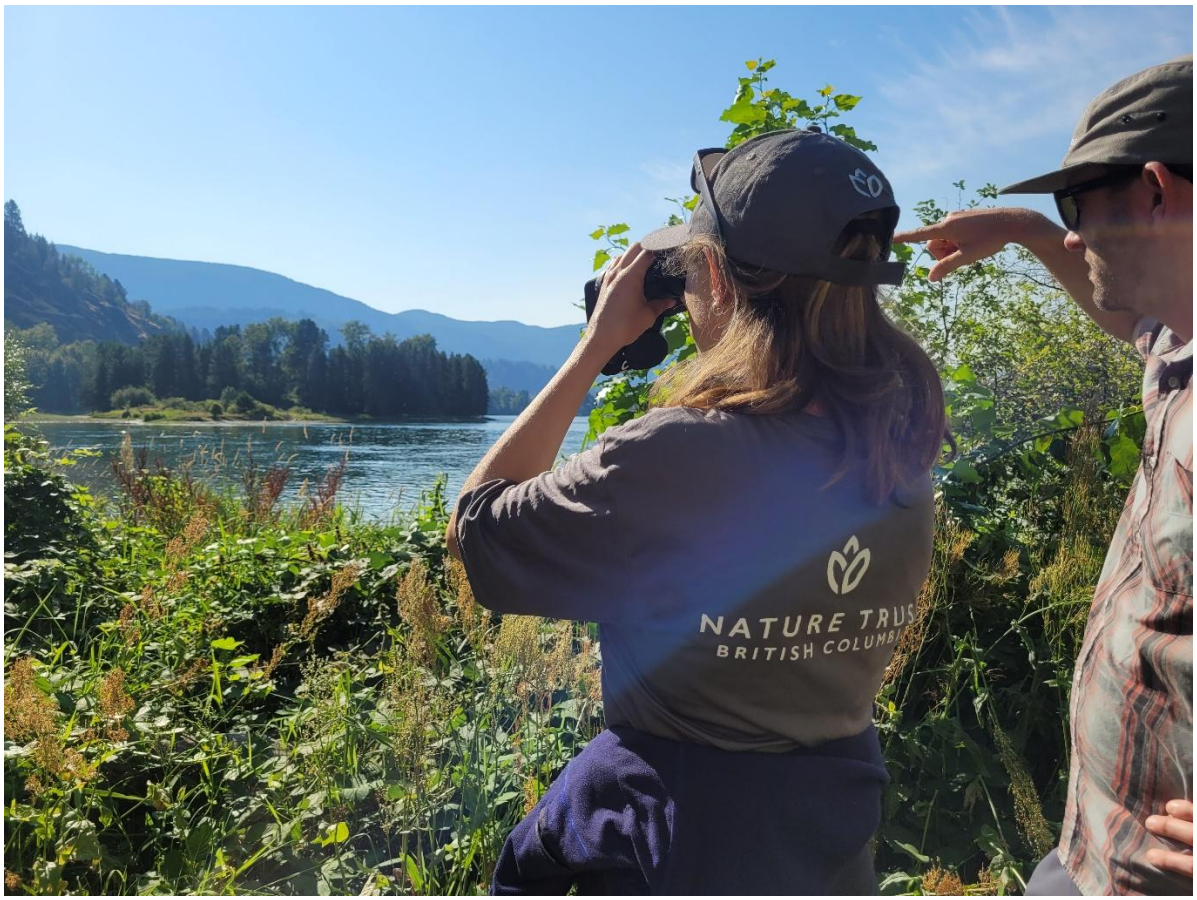
Final Report:
NTBC-Land Stewardship Activities F25 – Conservation Field Crew Program
COL-F25-W-4016



Prepared for: Fish & Wildlife Compensation Program

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Prepared with financial support of the Fish & Wildlife Compensation Program on behalf of its program partners, BC Hydro, the Province of BC, Fisheries and Oceans Canada, First Nations and Public Stakeholders

9-MAY-2025

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Executive Summary

In 2024-25, The Fish & Wildlife Compensation Program (FWCP) Columbia Board approved $39,100 to support The Nature Trust of British Columbia (NTBC)'s Conservation Field Crew (CFC) program, which annually employs those early in their conservation careers to implement important 'on-the-ground' operations and maintenance-focused conservation work. The FWCP funding was leveraged and combined with other funders to make the project a success. The 2024-25 CFC work plan put a specific focus toward access management issues and the protection of conservation areas, identified in the FWCP's Columbia Region Upland and Dryland Action Plan (COLUPD.ECO.HB.16.01 Access management issues-P1). Another priority in the 2024-25 field season was identifying areas for restoration, as identified in the Upland and Dryland Action Plan (COLUPD.ECO.RI.07.01 Identify candidate upland areas for ecosystem restoration-P1).

While preparing for the field season, NTBC faced staffing challenges greater than those encountered in past years. Multiple staff have transitioned out after working for the organization for several years, including two past crew leads, with notice received very close to the beginning of field season. Late hiring is challenging, as many seasonal job seekers secure work by late winter. The decision was made to hire a single Field Operations Coordinator for multi-year employment, in order to rebuild field crew capacity in a way that ensures staff are effectively supported in their roles. A change request detailing this adjustment was submitted and approved by FWCP. Learnings were applied to hiring for the 2025 field season, with crew recruitment already completed for the upcoming field season.

Following a lengthy hiring process, a new Field Operations Coordinator began work in July 2024, and has been employed continuously since then. The Field Operations Coordinator (FOC) conducted valuable conservation field work and training during the 2024 season and built experience to enable them to lead the field crew in the upcoming season, the hiring of which they led and completed in early 2025. The FOC frequently worked independently, and therefore often focused on tasks which could be safely and effectively completed by one person. Work not appropriate to be completed alone was undertaken alongside other NTBC staff, contractors, or where possible, with First Nations partners.

With a smaller NTBC staff contingent, alongside goals to expand working relationships with local First Nations, an increased portion of FWCP funding was allocated to supporting Indigenous participation in projects. This work involved ongoing, expanding, and new collaborative opportunities, and facilitated monitoring and enhancement activities which would not have been completed by NTBC staff alone.

The new staff member was able to participate in several important training and professional development opportunities and undertook a variety of work activities, all with a focus on land stewardship. Along with addressing specific FWCP Action Plans, there was a particular focus during 2024-25 on the Hoodoos, Big Ranch, Arrow Lake, and Bull River Grassland Corridor conservation areas. Some of the FOC work activities included fence assessment/maintenance/repair, invasive species inventory/ removal, kiosk and signage installation, hand seeding, litter removal, vegetation plot monitoring, wildlife camera installation/monitoring, infrastructure inventory, work plan prioritizing, and other basic assessments and inventories. These activities were carried out on 25 NTBC and BC Ministry of Water, Land and Resource Stewardship (WLRS) conservation areas/complexes throughout the Kootenay Region. Several days were spent assisting subject matter experts with different projects,

which also served as on-the-job training. The following report compiled by NTBC staff provides more details on the 2024-25 CFC Program.

The Nature Trust of British Columbia gratefully acknowledges the financial support of the Fish & Wildlife Compensation Program for its contribution to this component of the project.

Introduction:

In 2024-25, NTBC continued its tradition of employing conservation field staff, providing early career experience in conservation work. The new Conservation Field Operations Coordinator was supervised by the Kootenay Conservation Land Coordinator (this role was named Senior Field Operations Coordinator in 2024). While conservation field staff's primary responsibility is to fulfill the objectives specified in the annual Kootenay Conservation Land Operations and Maintenance Plan, there were also other opportunities built into the work plan. These opportunities facilitate networking and work experience with local biologists and conservation groups which aid in preparation for careers in the environmental field. This aspect of the program is a very important component of NTBC's mentoring initiative, and has been since the early 2000's.

A variety of projects were implemented in 2024-25 on NTBC and WLRS conservation complexes in the East and West Kootenays, which are outlined below. Work activities undertaken on the various conservation areas contributed to important 'on the ground' conservation efforts that address specific actions within the FWCP Upland and Dryland Action Plan.

Goals and Objectives:

The following list provides the goals/objectives for the Kootenay CFC:

1. NTBC, WLRS and funding partners enable a crew that assists with important operational and maintenance works on conservation areas in the region, thereby maintaining or enhancing wildlife and biodiversity values;
2. Provide crew members (especially students or recent graduates of an environmental discipline) with important, related work experience to build their career;
3. Address actions within FWCP's Upland and Dryland Action Plan focused on the Access Management Issues (COLUPD.ECO.HB.16.01)
4. Address actions within FWCP's Upland and Dryland Action Plan, focused on the identification of upland areas for ecosystem restoration (COLUPD.ECO.RI.07.01)

Work Area:

NTBC's Kootenay Region work area extends across the East and West Kootenays, as shown in Figure 1 - Kootenay Region Overview Map. Work locations ranged from the Columbia Valley in the north to as far south as Lake Koocanusa in the southern Rocky Mountain Trench. Work stretched in the east from the Elk Valley to the Arrow Lakes in the west. The following map symbolizes which conservation complexes have been acquired with FWCP financial support, as well of other management arrangements.

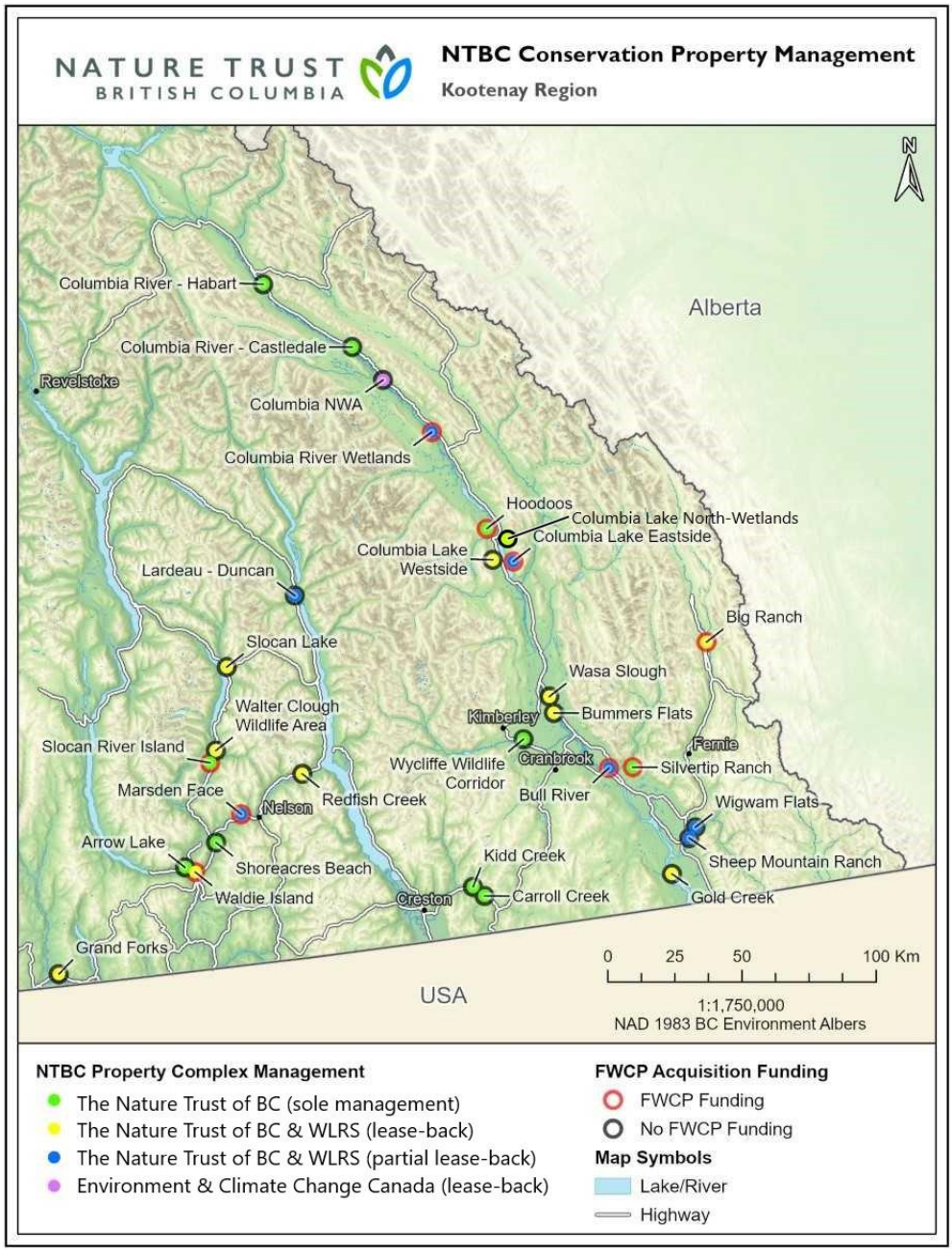

Figure 1: NTBC Kootenay Region Overview Map

Methods:

The project was delivered in large part by the newly hired Field Operations Coordinator. Working with a smaller staff contingent this year, and through the financial support provided by FWCP, contracted First Nations technicians had an important and expanded role in stewardship activities, particularly monitoring and enhancement work.

The annual work plan was established in advance of the FOC's employment start. Work activities take

place over a wide geographic area, so a focus on efficient project delivery was important. NTBC also makes every effort to ensure that all staff are immersed in NTBC safety culture at the start of every field season. Work activities varied, but best practices and methods were employed to ensure safety, efficiency and effectiveness. For example, mechanical invasive plant treatments were typically conducted in sensitive areas (i.e. riparian zones), where chemical treatments could not be undertaken. Mechanical treatments included hand pulling, bagging and disposing of plants in a properly specified manner at local transfer stations. In most cases, hand pulling was done prior to seed set, to reduce the threat of future spread and establishment. In some cases, loppers, weed whips or brush saws were used to cut plants to prevent their growth and seed set. Disturbed soils were reseeded with native seed blends.

Whenever possible, invasive plant inventories were undertaken in a methodical manner. This typically meant that a focus was placed on spread vectors and pathways (i.e. roads, game trails, and riparian areas). The crew recorded infestations through NTBC's ArcGIS *Field Maps* App, which was then later transferred into the provincial InvasivesBC database, thereby contributing data to assist with landscape-level monitoring and future treatment planning.

Other restoration work, such as revegetation, bird habitat enhancement, and tree thinning, were completed according to prescriptions developed by professionals or, in concert with pre-existing property management plans with specific, identifiable goals and objectives.

For data collection, NTBC continued to use the ESRI geo-referenced *Field Maps* App, which allows for collection and storage of nearly all of NTBC's field data and monitoring in a single, easy to access space. Data can easily be accessed for reference and updating in the field on subsequent visits. NTBC has officially established a data sharing agreement with the Province of BC, which allows NTBC to use the *Field Maps* app for data collection and sharing on both NTBC and WLRS conservation areas. This also allows for easy sharing of maps/data with the FWCP, especially on joint project sites.

For infrastructure construction, modifications and repair, basic carpentry and fence building work activities, best practices were employed to ensure longevity in harsh, outdoor conditions. Fence designs and repaired implement wildlife friendly design and construction techniques and materials that do not serve as impenetrable barriers, yet ensure that conservation areas are protected from domestic livestock and motor vehicle trespass.

Results, Outcomes & Discussion:

Results, outcomes and discussion have been combined within this section and specifically describe training and professional development, as well as work activities.

Work Activities

In 2024-25, the Field Operations Coordinator worked on 25 different conservation complexes within the Kootenay region. Through their work on these sites, 195 nursery stock native trees and shrubs were planted, more than 125 kg of native grass seed was applied, more than two hectares of invasive plant infestations were mechanically treated, more than 20 conservation-related signs were installed, wildlife cameras were used for monitoring at 22 sites, and 21 photo plot sites were monitored.

Specific operations, maintenance, and enhancement-related work activities are outlined below, with land ownership indicated:

Arrow Lakes Conservation Area (NTBC)

1. Inspected conservation area for impacts and extent of recreational use, and to support assessment of future enhancement opportunities.
2. Inspected existing boundary and user guidance signage.
3. Staff from Okanagan Nation Alliance conducted two site visits, to begin documenting ecological features, wildlife, and public use, and deploy four trail cameras and an Autonomous Recording Unit (ARU). NTBC identified a lack of ecological information to guide management of this conservation area, and the work is part of seeking to expand partnership, monitoring and enhancement opportunities on an ongoing basis at the site.

Big Ranch Conservation Complex (NTBC)

1. Photo monitoring/aspen growth plots within seven, fenced aspen enclosures (14 total locations) were assessed, and improvements made to the instructions for the monitoring protocol.
2. Removed rubbish, assessed parking area and surrounding fence condition, and trimmed grass around public information kiosks and parking area at the primary entrance.
3. A trail camera in place at the edge of a restored wetland basin was maintained and monitored, and highlight images shared with the project team and stakeholders. Review of images showed extensive use by elk, as well as Grizzly and black bears and American badger accessing the water source.
4. Five additional new wildlife cameras were deployed to monitor wildlife use and recent enhancement work. The coordinator assisted in deployment, while ongoing maintenance and monitoring was undertaken by the Big Ranch Ecosystem Enhancement Project team for the remainder of the year.
5. Crew worked alongside the Wildsight Youth Climate Corps crew planting 75 large spruce nursery stock to promote a visual buffer alongside Lower Elk Valley Rd.
6. Installed, cleaned and repaired blue bird boxes to increase nesting opportunities.
7. Installed three new conservation area boundary signs along Lower Elk Valley Rd.
8. Nupqu (a partnership owned by Ktunaxa Nation communities) conducted understory forest thinning on two treatment units, totaling 3.41 hectares, based on a habitat enhancement prescription prepared by a Registered Professional Forester.

Bull River Conservation Complex (Lower Norbury Creek, Armstrong, Bull River Grassland Corridor (BRGC), Red Barn – NTBC & WLRS)

1. A game camera was installed and monitored in an area where trespass and illegal tree cutting was occurring at the Bull River Grassland Corridor.
2. Five new 'No Tree Cutting', and two new conservation complex signs were installed along primary public accesses.
3. Property infrastructure and habitat features were inventoried using the NTBC *Field Maps* app.
4. Slash piles, remaining from previous work to reduce understory deadfall for improved wildlife passage and sightlines, were burned during winter conditions at the Bull River – Armstrong Conservation Area.
5. As part of the multi-year BRGC Habitat Enhancement Project, a technician from Ktunaxa Nation undertook monitoring of wildlife behavior and habitat use, building understanding of wildlife usage trends and informing planning of enhancement activities.

Bummers Flats/Cherry Creek Conservation Complex (NTBC & WLRS)

1. The FOC participated in ongoing recovery activities following the impacts of the 2023 St. Mary's River Wildfire, applying seed (four 25kg bags) to disturbed areas along priority locations including fireguards, roads and fencelines, and monitoring wildfire-related impacts to invasive plant infests.
2. Removed 380m of fencing deemed hazardous to wildlife and public following damage sustained in the wildfire.
3. Repaired exclusion fencing around wetland planting blocks adjacent to restored wetlands.
4. Maintained and monitored two trail counters, documenting extent of public use within Cherry Creek Conservation Area.
5. Working with the Wildsight Youth Climate Corps crew, a total of 120 trees and shrubs were planted in exclosures adjacent to previously restored wetland basins. Reed canary grass was cleared from planting locations to facilitate early growth. Species included Trembling aspen, Bebb's willow, Black twinberry, and Red-Osier dogwood, and will boost biodiversity and habitat value in the area.
6. Assisted with monitoring for the Bummer Flats Pollinator Meadow Restoration Project.
7. Nine new conservation area boundary signs were installed at Bummers Flats-North, focusing on the interface with Highway 93/95.
8. A new Motor Vehicle Closure Area sign was installed at the updated road closure location, following a change to the provincial regulation.
9. Infrastructure and habitat features were inventoried into NTBC *Field Maps* application
10. Assessed bridge spanning Cherry Creek for structure safety and risk of erosion from creek.
11. At the new Bummers Flats – MapleCross Benchlands parcel, survey stakes were added to the eastern boundary, in preparation for installation of fencing to restrict trespass by motor vehicles and domestic livestock.
12. Participated in a meeting and discussion with ʔaq̓am members and staff, Friends of Cherry Creek volunteer group, Ducks Unlimited Canada staff, and other NTBC staff, to discuss beaver activity impacting impounded wetlands at the south end of Cherry Creek and boundary with ʔaq̓am, and potential monitoring, restoration and enhancement considerations.

Carroll Creek Conservation Area (NTBC)

1. Assessed new fence construction (1.1km) and reseeded disturbance following fence replacement by a contractor.
2. Beaver activity and impact on water flow was assessed.
3. An annual bridge safety inspection form was completed to assess the bridge on site.
4. The FOC collaborated on Ecological Condition Assessments, using NTBC's dedicated assessment tool in the *Field Maps* and *Survey123* apps, evaluate and document ecological values and threats within the conservation area.

Columbia Lake Eastside Conservation Complex (NTBC)

1. Remaining metal debris, following removal of larger debris from an old water tower, was removed from the site, and native grass seed applied to newly exposed soils.
2. Use of the area by Rocky Mountain Bighorn Sheep was observed and documented.

Columbia Lake North – Wetlands Conservation Area (NTBC)

1. Two wildlife cameras were monitored, which captured a range of wildlife, including elk, white-tailed deer, coyote and bears.
2. An illegal dump site, including household rubbish and a derelict camper trailer, was identified

and documented for cleanup in the upcoming field season.

Columbia Lake Westside Conservation Complex (NTBC)

1. Protective fencing around the Sun Creek wetland restoration site was inspected, and locations for fence repairs by a contractor were identified.
2. Monitored a trail camera on the Sun Creek wetland restoration project.
3. Assessed campsites around Spur Lake and cleaned up garbage and unauthorized fire pits.
4. Identified candidate trees for enhancement of 10 wildlife tree recruits completed by arborists, and documented these features in the *Field Maps* app.

Columbia River Wetlands - Edgewater Conservation Area (NTBC)

1. Recently-installed rail fencing, surrounding a new parking area, was stained to assist its longevity.
2. Property infrastructure and habitat features were inventoried using the NTBC *Field Maps* app.
3. Disturbed areas were reseeded following fence-related work.
4. Installed, cleaned and repaired blue bird boxes to increase nesting opportunities.
5. A wildlife camera was maintained and monitored to assess use of basking logs recently installed in partnership with a local stewardship group to improve habitat for western painted turtles.

Columbia River Wetlands - Habart Conservation Area (NTBC)

1. Hand treatment of Spotted knapweed, Canada thistle, and burdock infestations (~0.05 ha).
2. Infrastructure and habitat features were inventoried on NTBC's *Field Maps* app.

Columbia Wetlands National Wildlife Area – Spillimacheen Unit (NTBC & ECCC)

1. Hand treatment of Spotted knapweed infestation (~0.1 ha).
2. Infrastructure and habitat features were inventoried on NTBC's *Field Maps* app.
3. A known nesting location for Western painted turtle, where trampling is a concern due to a short trail used for launching paddlecraft by public visitors, was assessed in partnership with a local biologist for opportunities for protection and enhancement.

Gold Creek Game Reserve Conservation Area (Strauss Road) (NTBC & WLRS)

1. Site was monitored for impacts from public access, and condition (including potential damage) to recently-installed gates.
2. Removed garbage from conservation area left behind by people camping on adjacent land.

Hoodoos Conservation Complex (Hoodoos-Westside and Hoodoos-Columbia Wetlands, NTBC)

1. Grasses and forbs around information kiosks and parking lot areas were trimmed.
2. Litter was removed around the two main parking lots at the Hoodoos Trailhead and Hawke/Westside Road junction.
3. Fence repair was completed on the northern boundary, where cattle trespass was observed, and inspection took place along the northeastern boundary, documenting numerous issues along approximately 3 kilometres of fence, to guide repairs by a contractor.
4. A 4x6' kiosk with signage was installed at the recently-secured Hoodoos-Columbia Wetlands Conservation Area.
5. Two walking trails at Hoodoos-Westside were assessed for use, hazards, and adequate marking/delineation, and maintained as needed.
6. Vandalism was observed on two 4x8' visitor information kiosk signs. One was cleaned, and the

second replaced.

7. Signage informing visitors of the Motor Vehicle Closure Area was inspected and replaced as needed.
8. Access gates for seasonal road closures were assessed and locked in accordance with regulations, including two gates newly installed in 2024 at vehicle closure points, following 2022 mapping and assessment. One sawed-off gate post was documented to facilitate repairs once ground thaws, and an alternative locking system temporarily implemented.

Kidd Creek Conservation Area (NTBC)

1. The conservation area was inspected for condition and authorized use, and trash removed, primarily from the primary access point.
2. Past tree planting work was monitored for survivorship, and observations made to improve efficacy of future work.
3. Initial assessment and documentation for a potential small wetland enhancement project was conducted by the Field Operations Coordinator, to prepare for prescription development in partnership with a contractor in the 2025 field season.
4. The FOC developed new signage during the winter to discourage littering and unauthorized use on site, for installation during the upcoming field season.

Lardeau - Duncan Flats Conservation Complex (NTBC)

1. Infrastructure and habitat features were inventoried into NTBC *Field Maps* application.
2. A wildlife camera was installed to monitor wildlife use near restored wetland basins.

Marsden Face Conservation Complex (NTBC & WLRS)

1. The conservation area was inspected to assess condition, identify unauthorized use, and plan future management actions.
2. A wildlife camera was installed and monitored to assess recreational access near Marsden Rd., including unauthorized uses, as well as wildlife use. Within Rixen Creek Conservation Area, an additional wildlife camera, and a trail counter, were maintained/monitored.
3. A new 'No tree cutting' sign was installed.
4. Litter was collected from several parts of the property.
5. Yellow flag iris was treated within the riparian area.
6. Within the Rixen Creek Conservation Area portion of the complex, an access trail was maintained, and branches leaning into the trail were trimmed.
7. Within the Rixen Creek Conservation Area portion of the complex, an old bridge location, where materials had created a concern regarding debris buildup in the previous year was monitored, and no new issues identified.

Redfish Creek Conservation Complex (NTBC & WLRS)

1. Completed invasive plant removal from parking area and alongside walking trails (approx. 0.5ha), and treatments tracked in NTBC *Field Maps* app.
2. Litter was removed from the parking area and alongside trails.
3. Signage was monitored, and graffiti cleaned from one sign.

Sheep Mountain Conservation Complex (NTBC & WLRS)

1. Parking lot rail fencing, damaged in a vehicle trespass incident, was repaired/reinforced, and the area was assessed for opportunities to bolster trespass barriers in the upcoming field season.

2. Infrastructure and habitat features were inventoried into NTBC *Field Maps* application.
3. Four photo monitoring plots were revisited and documented.
4. Two trail counters were installed in fall 2024 to monitor extent of recreational public access.
5. A trail camera was installed to monitor wildlife use and possible vandalism (none recorded) in an area where range fencing had sustained damage.

Shoreacres Beach Conservation Area (NTBC)

1. Completed a property inspection and identified trees to be professionally assessed as potential hazards (later conducted by a certified professional).
2. Spotted knapweed (~0.3ha; three contractor garbage bags) and Rush skeletonweed (~0.01ha) infestations were mechanically treated, and treatments tracked in NTBC's *Field Maps* app. The area was seeded with a native grass seed blend.
3. Litter was collected, especially around the parking area, beach, and pathway.
4. Signage guiding public use was maintained, including reinstallation of signs guiding parking, indicating no smoking, no bicycles on the beachfront, and 'Swim at your own risk.' During the winter season, the FOC designed new signs to inform visitors on rules for dog access, to be installed in the upcoming field season.

Slocan Lake Conservation Area (NTBC)

1. The conservation area was monitored, and habitat features and recreational access were assessed and inventoried on NTBC's *Field Maps* app.
2. The conservation area was monitored for invasive plants, but continues to be free of priority species.
3. A kiosk hosting signage which was damaged by a large, fallen tree, was assessed to plan repairs in the 2025 field season.

Waldie Island Conservation Area (NTBC)

1. Restoration project planning and related communication continued with staff from the Okanagan Nation Alliance (ONA). Meetings were held to facilitate engagement with the Osoyoos Indian Band, and a plan for on-site visit and archaeological assessment is underway, which will guide future management and proposed enhancement work.
2. The NTBC crew monitored the island in August for heron activity, observing feeding and perching use, but not nesting by herons, and also observed elk along the shore. ONA staff observe the area more frequently, and reported similar observations in 2024.

Wasa Slough Conservation Complex (NTBC and WLRS)

1. The site of a knapweed control project conducted by a UVic student/former crew member was revisited. The project was monitored, solarization materials were repaired, and knapweed growing adjacent to the solarization material was hand-pulled.
2. Applied wood stain to three 4x4' sign kiosks.
3. Provided support for enhancement of a total of 27 trees for wildlife habitat, including 6 trees enhanced with BrandenBark synthetic bark, and 21 chainsaw-modified wildlife tree recruits.
4. A technician from Ktunaxa Nation undertook monitoring of wildlife behavior and habitat use as part of a larger habitat enhancement project.

Wigwam Flats Conservation Complex (NTBC and WLRS)

1. The complex was inspected, and infrastructure and habitat features were inventoried into

NTBC's *Field Maps* application.

Wycliffe Conservation Complex (NTBC and WLRS)

1. The FOC conducted extensive work to document infrastructure and habitat features at the Wycliffe Prairie Conservation Area, a newly secured 182 hectare parcel at a key location within the complex.
2. Four wildlife cameras were maintained/monitored to document wildlife use and assess effectiveness: two to document wildlife present on the new Wycliffe Prairie parcel, one associated with a staple lock feature designed to ease wildlife passage across newly built fence lines, and one facing rail fencing installed to reduce vehicle trespass.
3. The FOC provided in-field support to a local archaeologist and First Nations technician conducting an archaeological assessment of the newly-secured Wycliffe Prairie parcel.
4. Annual photo monitoring and grassland health assessments were conducted at three plot locations, established following the construction of fencing excluding cattle from the site.
5. The FOC, during the winter, provided mapping support for fence installation and repair work.
6. Disturbed areas related to fencing and forest thinning were re-seeded with a native seed blend.
7. Slash piles, remaining from previous work to reduce understory conifer ingrowth, were burned during winter conditions.

Newgate Conservation Area/Barr 40 (WLRS)

1. Participated in installation of beaver dam analogues, assisting in materials collection for construction of the features, and touring the site to learn about the techniques. This project is being primarily implemented by the BC Wildlife Federation and WLRS, whereas similar work is proposed on NTBC conservation areas in future, and the CFC is anticipated to have a key role in installation.

Training & Professional Development

The 2024-25 Conservation Land Operation and Maintenance Program was designed, in part to accommodate new staff with the training and certifications required to work safely, as well as lead the CFC effectively in the upcoming year. Professional development opportunities also allow for the crew to be exposed to a variety of conservation disciplines, with the intent of cultivating interest and increasing their employability within the environmental sector. In some instances, training typically offered to the crew was not available in its usual format, and the delivery method was adapted. Training and professional development in 2024-25 included:

TRAINING

Workplace Violence and Harassment Training

- This course was provided online through Worksitesafety.com, to provide staff with strategies for recognizing, responding to, and preventing violence and harassment. The Field Operations Coordinator completed the training course developed for workers at the beginning of their employment, and later, the course for supervisors, in preparation for supervising the CFC in the upcoming season.

Workplace Hazardous Materials information System (WHMIS):

- The course was completed online through Worksitesafety.com. A special focus was on materials

commonly carried by the field crew.

Defensive Driver Training

- This course was completed online through Worksitesafety.com. This course provided staff with real life examples and scenarios related to road hazards and the importance of awareness and confidence when driving.

Bear Aware Training

- This course was completed online through Worksitesafety.com. The course provided an overview about the dangers of bears when working in an outdoor setting. Also included was information related to identification, behavior, habitat, avoidance, and reactions to bears.

Occupational First Aid – Level 1

- This course was put on by the College of the Rockies in Cranbrook BC. The course provided basic first aid knowledge to the new staff member who did not hold valid certification.

Indigenous Awareness

- This course was presented online by Indigenous Corporate Training, Inc. to provide a foundational understanding of Indigenous history, culture and perspectives, as well as introducing considerations for reconciliation and relationship building.

Indigenous Relations

- This course was presented online by Indigenous Corporate Training, Inc., and built onto the lessons of the Awareness course, focusing on cultivating relationships and consulting with Indigenous Peoples.

Drone Training: 101 – Basic – RPAS Ground School

- This course was presented by Coastal Drone Co. and provides foundational safety and operational knowledge for basic drone operations. A Basic Pilot certificate was obtained from Transport Canada following course completion. NTBC frequently uses a small drone to document conditions at conservation areas, particularly for pre- and post-project monitoring of restoration and enhancement work.

NTBC Project Safety Analysis and Safe Work Procedural Overview:

- The NTBC crew had an in-depth review of the NTBC Project Safety Analysis (PSA) and Safe Work Procedures before commencing fieldwork. This overview includes, but is not limited to the following:
    - Tailgate Safety Meetings
    - Vehicle and trailer safety checks
    - Check-in Procedures (SafetyLine worker monitoring system)
    - Missed check-in protocols and responsibilities
    - InReach device overview
    - Risk/hazard assessment guidelines
    - Backcountry/Forest Service Road vehicle operation
    - Safe handling and use of power tools
    - PPE requirements
    - VHF radio use and procedures

PROFESSIONAL DEVELOPMENT

Special Projects & Partner Work Events

- Bummers Flats Pollinator Meadow Restoration: The FOC helped WLRS staff and KinSeed Ecologies to revegetate a pollinator meadow on the Bummers Flats Conservation Area, focusing on monitoring vegetation change, and indications of egg-laying by the at-risk Silver-spotted skipper butterfly.
- Marsden Face Camas Meadow Restoration: The crew member assisted the Kootenay Native Plant Society (KNPS), alongside staff from Okanagan Nation Alliance and the Ministry of Water, Land and Resource Stewardship to enhance Common camas meadows, a culturally significant plant for local First Nations, also of importance to pollinators.
- Big Ranch Ecosystem Enhancement Project – Tree planting: The NTBC Field Operations Coordinator joined the Wildsight Youth Climate Corps (YCC) crew to plant large spruce trees to provide a visual buffer from the nearby roadway where it interfaces with the Big Ranch Conservation Area.
- Shuswap Band Salmon Festival: The Field Operations Coordinator, with support from other staff, attended the Salmon Festival in James Chabot Provincial Park, which was led and hosted by Shuswap Band, and maintained a booth to engage with attendees.
- Wildlife Tree Recruitment: The Field Operations Coordinator, with support from other staff, selected and mapped candidate trees for wildlife tree enhancement work (inoculation and chainsaw modifications to 10 trees) at Columbia Lake Westside Conservation Area, and attended Wasa Slough Conservation Area as trees were enhanced (21 with chainsaw modifications, and 6 with BrandenBark synthetic bark), to provide support and observe techniques for habitat enhancement by Strategic Resource Solutions (Todd Manning).

Recommendations:

2024-25 was another successful field season for NTBC land stewardship activities; meanwhile, there are always things that can be improved upon. Below are some recommendations:

1. Conduct crew hiring early in the calendar year, to access a broad pool of seasonal job seekers. This recommendation has been implemented for the upcoming season.
2. Continue supplying crew with training including First Aid, s100/185, and chainsaw training.
3. Continue to provide crew with work-appropriate safety equipment, including safety toe boots.
4. Consider purchasing a jon boat to safely transport large or heavy items (e.g. kiosk signs and equipment) to conservation areas with water-only access.
5. Continue to assess opportunities to provide certainty of ongoing employment, such as permanent seasonal roles or multi-year terms.
6. Continue to integrate the crew with Provincial government staff, contracted experts, and special projects, as this provides valuable partnership and learning opportunities.
7. Continue to visit the West Kootenays at least 2-3 times annually to ensure there is an NTBC presence on these conservation areas.
8. Continue to upgrade tools and supplies to efficiently and safely deliver work plan. Additionally, seek opportunities for using technology to increase efficiency, including use of apps/tools readily accessible by crew using their cell phones.

9. Continue to hire a year-round technician to allow for field work to continue well into the fall/winter, enhanced project coordination, and a stronger presence on West Kootenay conservation areas.
10. Integration of more wildlife-focused projects (i.e. game camera monitoring) was recommended by the crew again this season.

Acknowledgements:

The Nature Trust of British Columbia gratefully acknowledges the financial support of the Fish & Wildlife Compensation Program for its contribution to this component of the project.

NTBC also wishes to acknowledge the other funders for the 2024-25 Conservation Field Crew in the Kootenay Region. They included: the Canada Nature Smart Climate Solutions, the Habitat Conservation Trust Foundation, and Wheaton Precious Metals.

Conservation Field Crew Photos

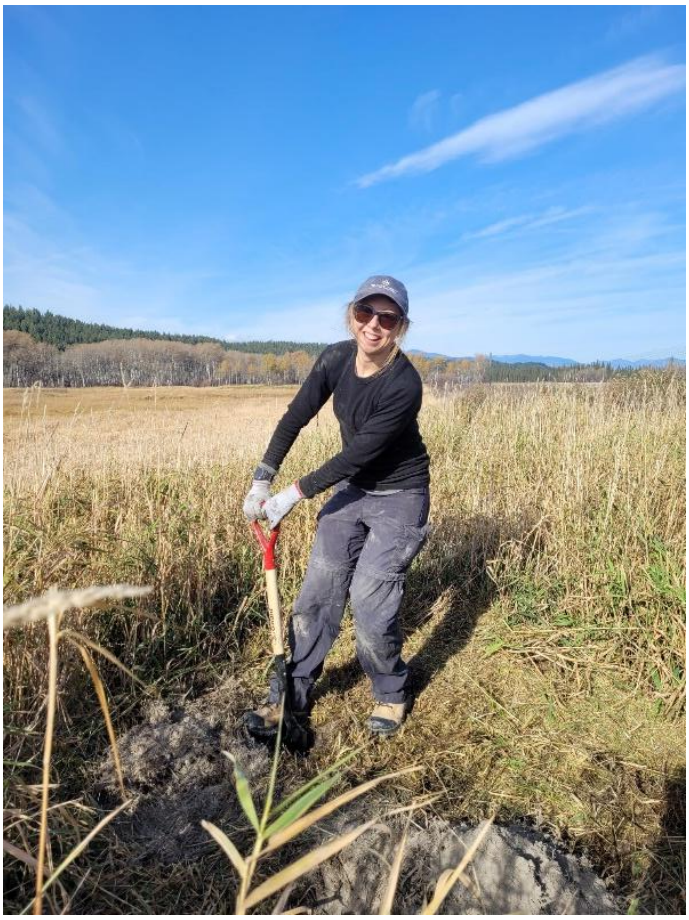

Figure 2: Planting trees and shrubs in Cherry Creek Conservation Area (NTBC) wetland exclosures.

Figure 3: Marking candidate trees for wildlife tree recruitment at Columbia Lake Westside Conservation Area (NTBC).

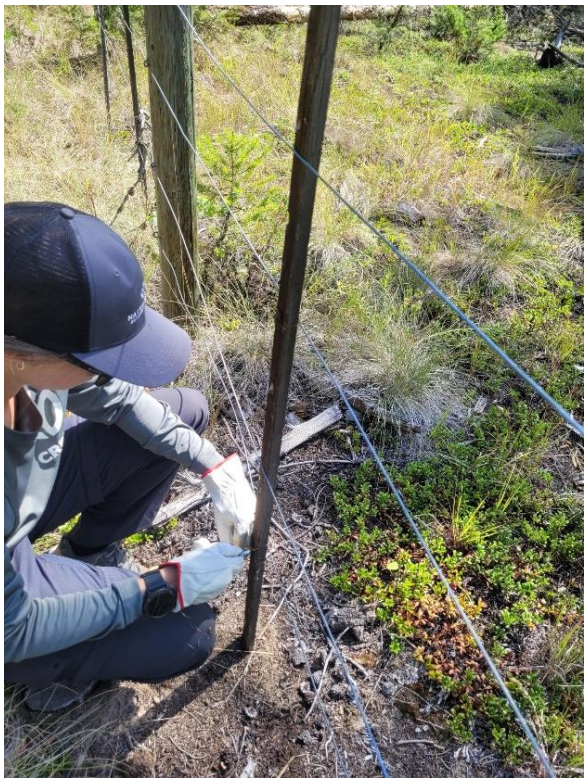

Figure 4: Repairing a damaged fence at Hoodoos-Westside Conservation Area (NTBC), where cattle were observed trespassing.

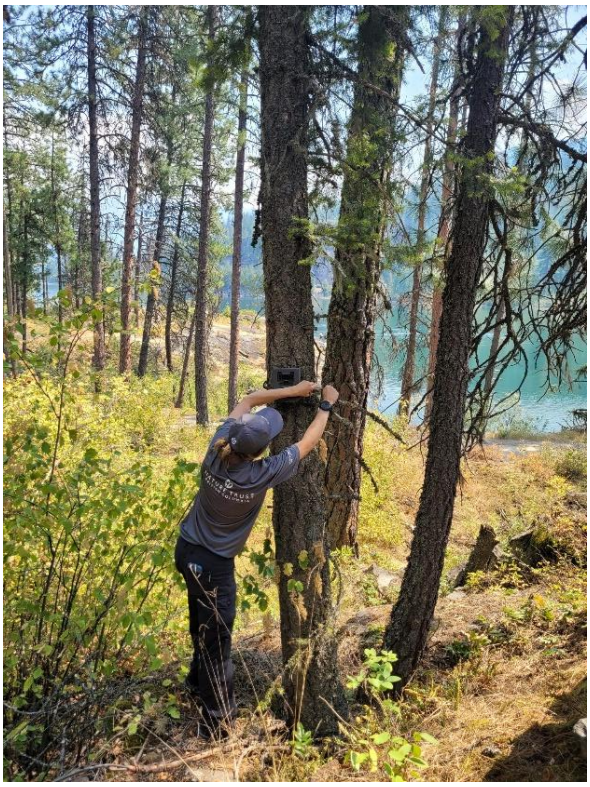

Figure 5: Installing a wildlife camera at Marsden Face Conservation Complex (NTBC/WLRS).

Figure 6: Engaging with attendees at the Salmon Festival event at James Chabot Provincial Park, organized and led by the Shuswap Band.

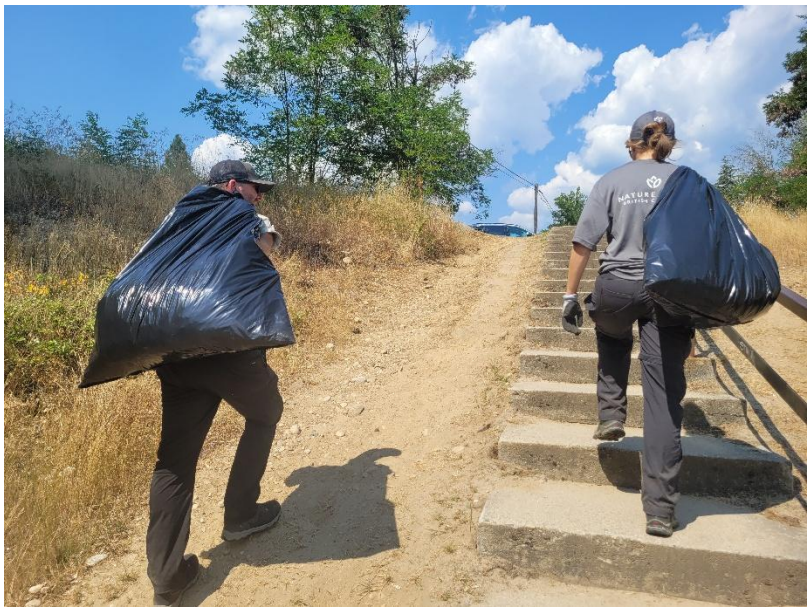

Figure 7: Removing invasive plants and litter from Shoreacres Beach Conservation Area (NTBC), along with Kootenay Conservation Land Manager.

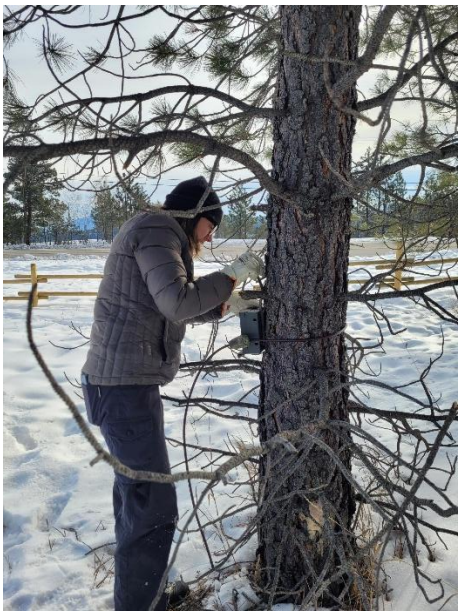

Figure 8: Installing a wildlife camera to monitor newly installed fence at Wycliffe Conservation Complex (NTBC/WLRS).

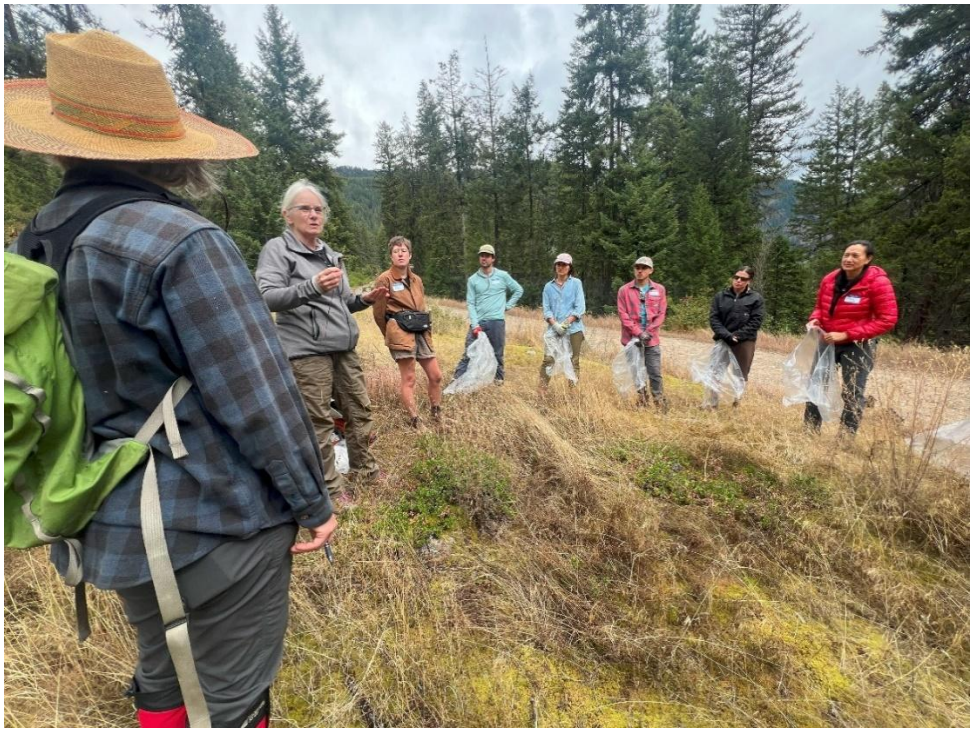

Figure 9: Camas meadow enhancement work party at Marsden Face Conservation Complex (NTBC/WLRS), hosted by KNPS with participation by volunteers, WLRS, and local First Nations.

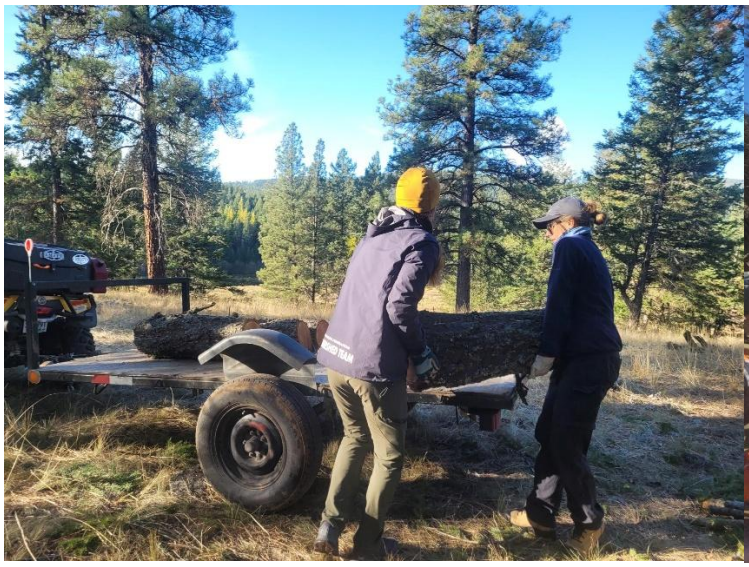

Figure 10: NTBC FOC and BC Wildlife Federation staff loading materials for construction of beaver dam analogues at Newgate/Barr 40 Conservation Area (WLRS).

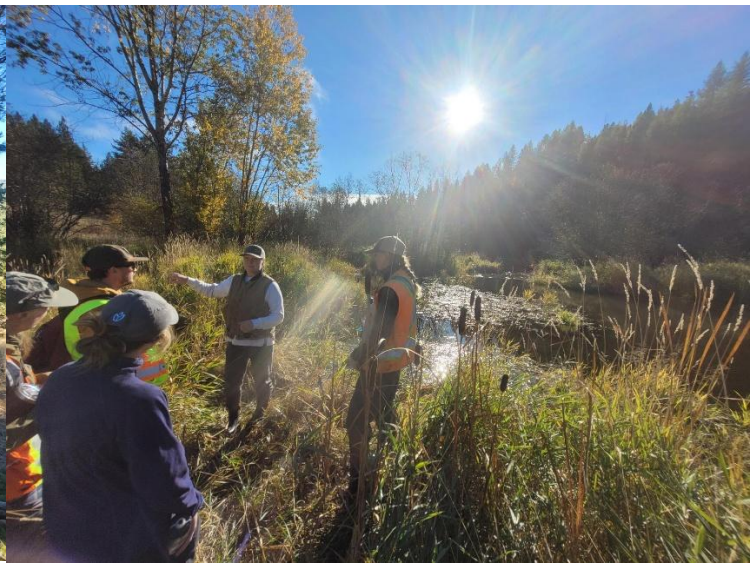

Figure 11: Discussing and viewing beaver dam analogue and wetland enhancement project with BC Wildlife Federation and BC Ministry of WLRS staff at Newgate/Barr 40 Conservation Area (WLRS).

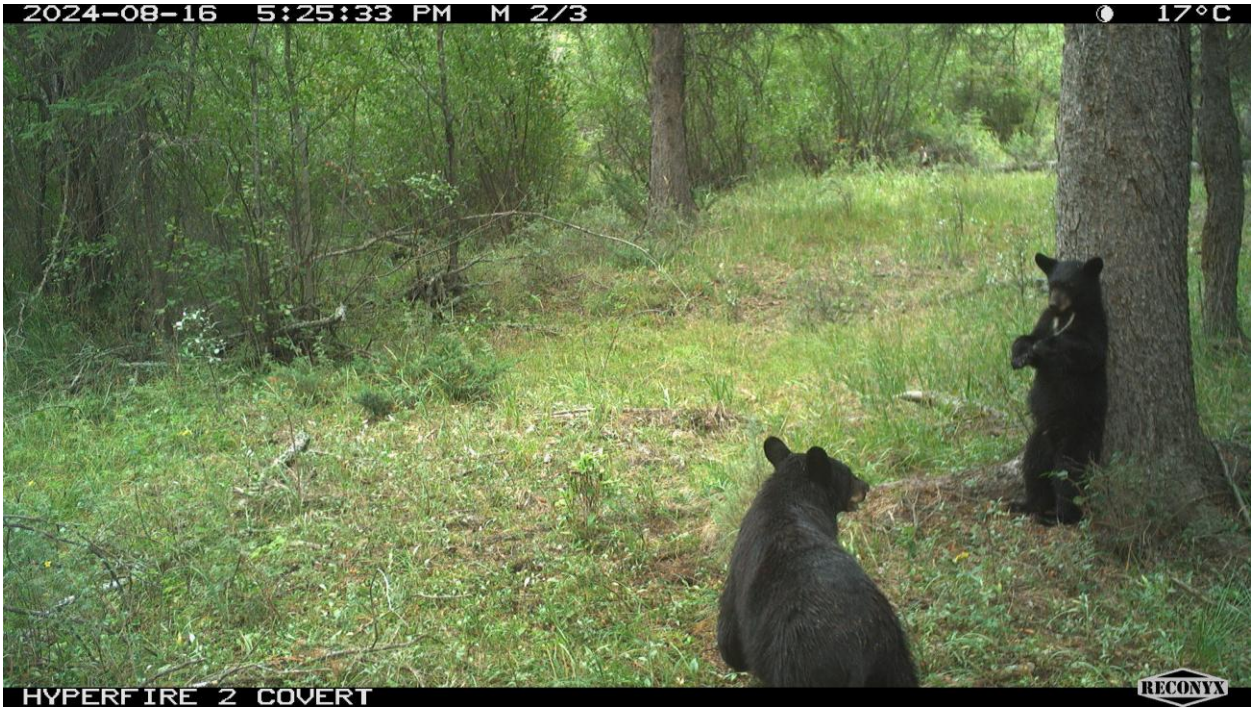

Figure 12: Black bears recorded on wildlife camera at Columbia Lake North-Wetlands Conservation Area (NTBC). The FOC was instrumental this year in deployment, maintenance and image review for wildlife cameras at many conservation areas.

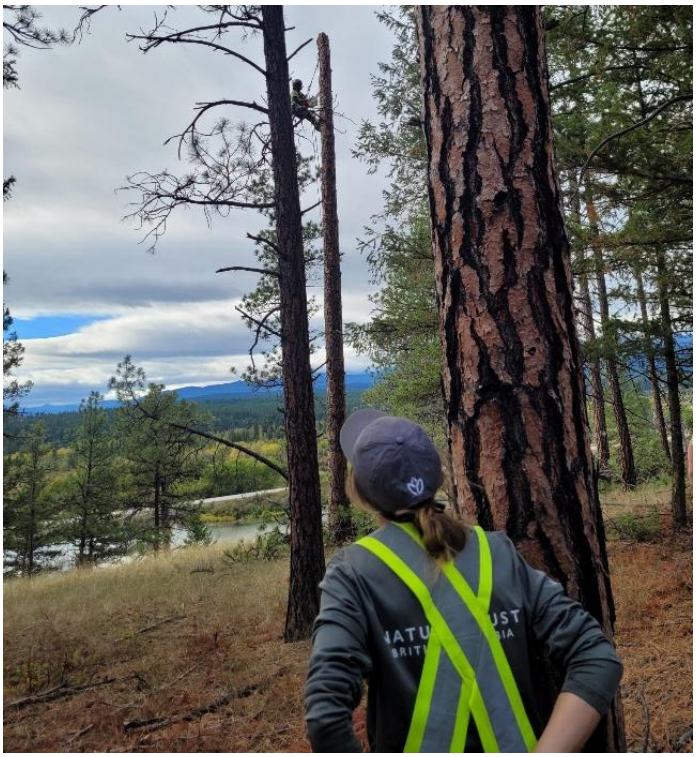

Figure 13: Observing wildlife tree recruitment work by arborist at Wasa Slough Conservation Area (NTBC).

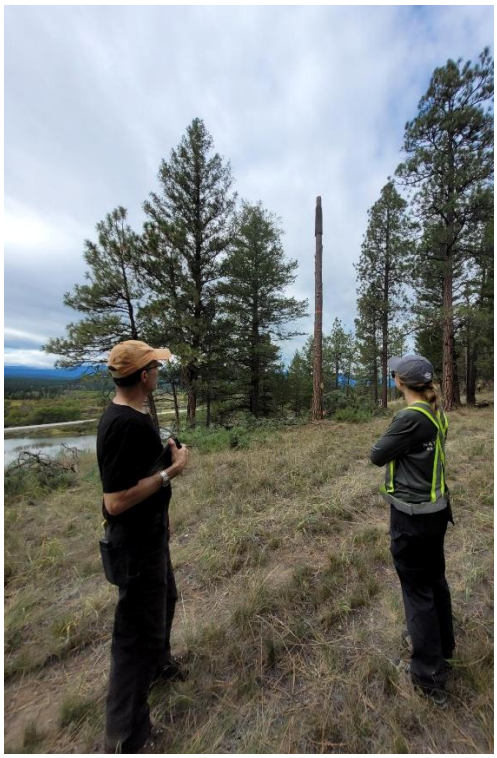

Figure 14: Observing BrandenBark installed to enhance bat habitat at Wasa Slough Conservation Area (NTBC).

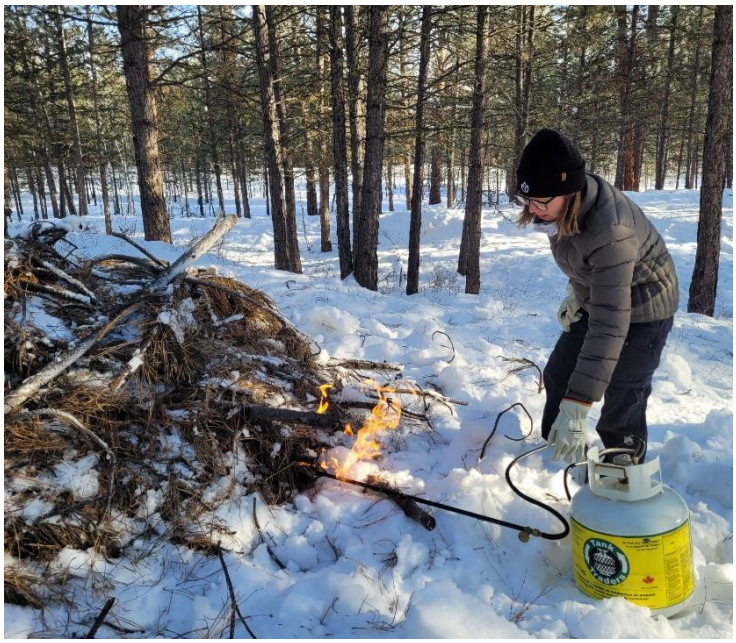

Figure 15: Burning slash piles remaining from forest thinning at Wycliffe Conservation Complex (NTBC parcel).

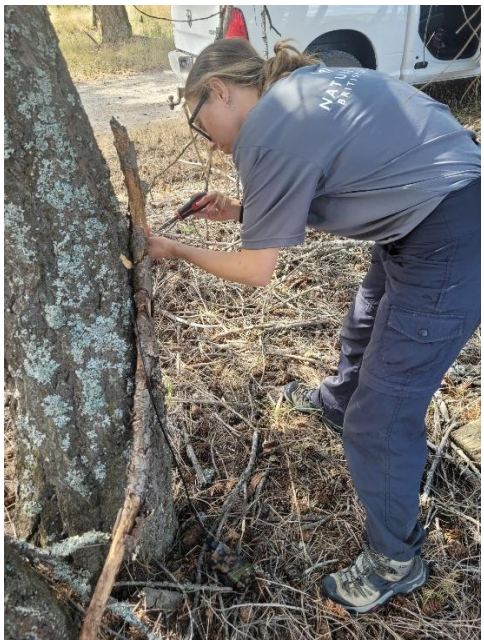

Figure 16: Trail (visitor) counter deployment at Cherry Creek Conservation Area (NTBC).

Figure 17: Wildlife camera footage showing American badger in recently restored wetland basin on a hot day at Big Ranch Conservation Complex (NTBC).

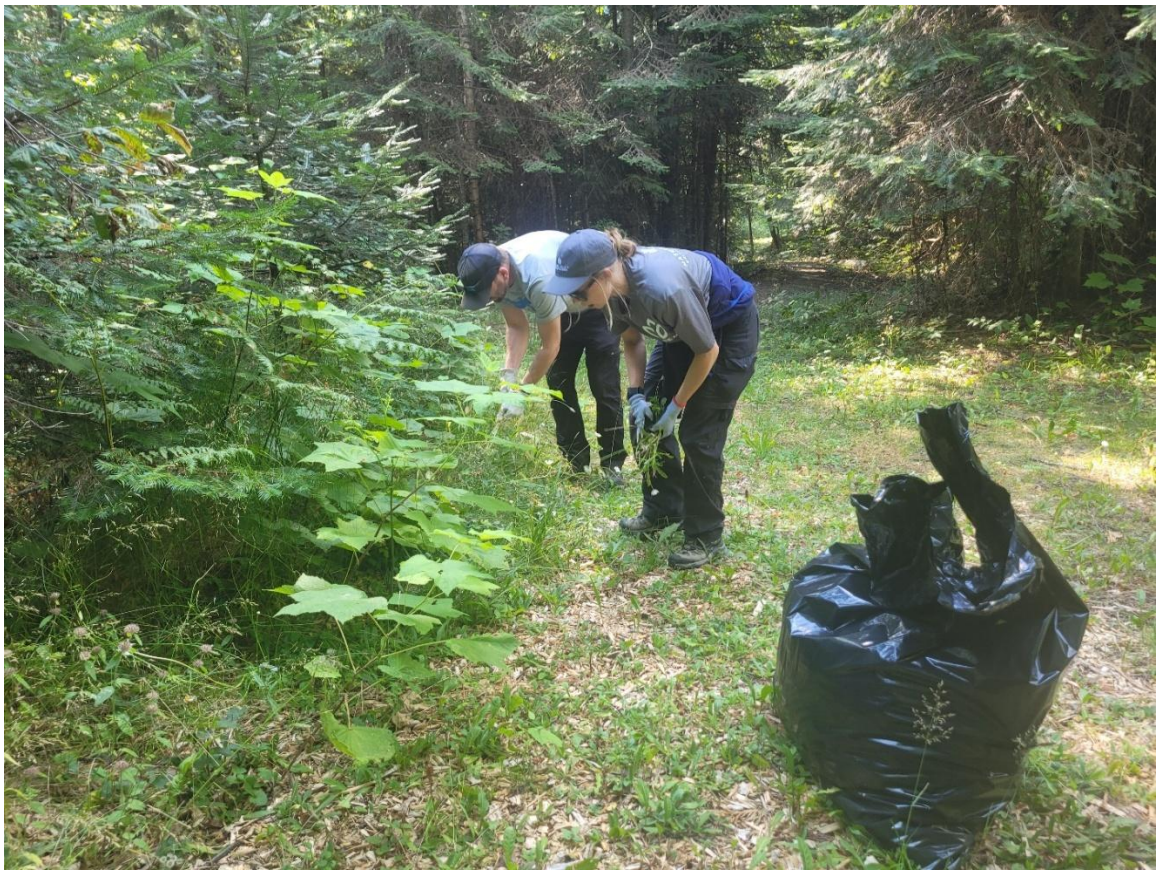
Figure 18: Hand-pulling invasive plants at Redfish Creek Conservation Complex (NTBC/WLRS), alongside Kootenay Conservation Land Manager.

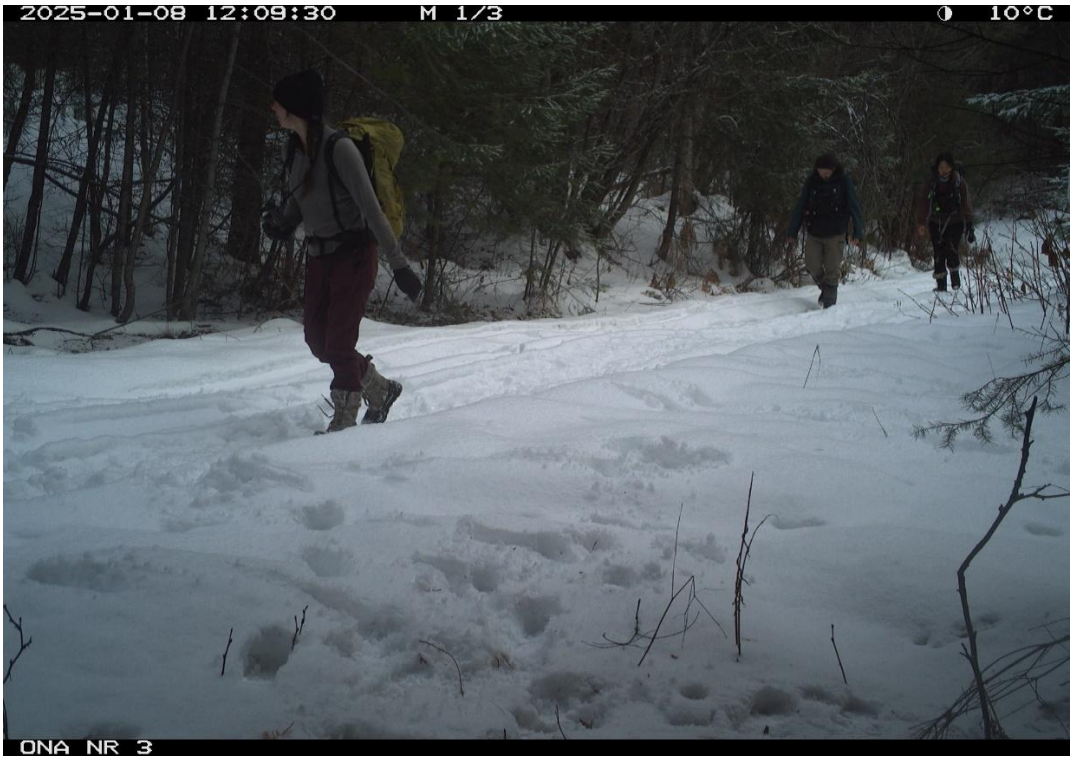

Figure 19: Staff from Okanagan Nation Alliance visiting to Arrow Lake Conservation Area (NTBC) to assess ecological features, wildlife and public use, and deploy wildlife cameras and Autonomous Recording Unit (ARU).

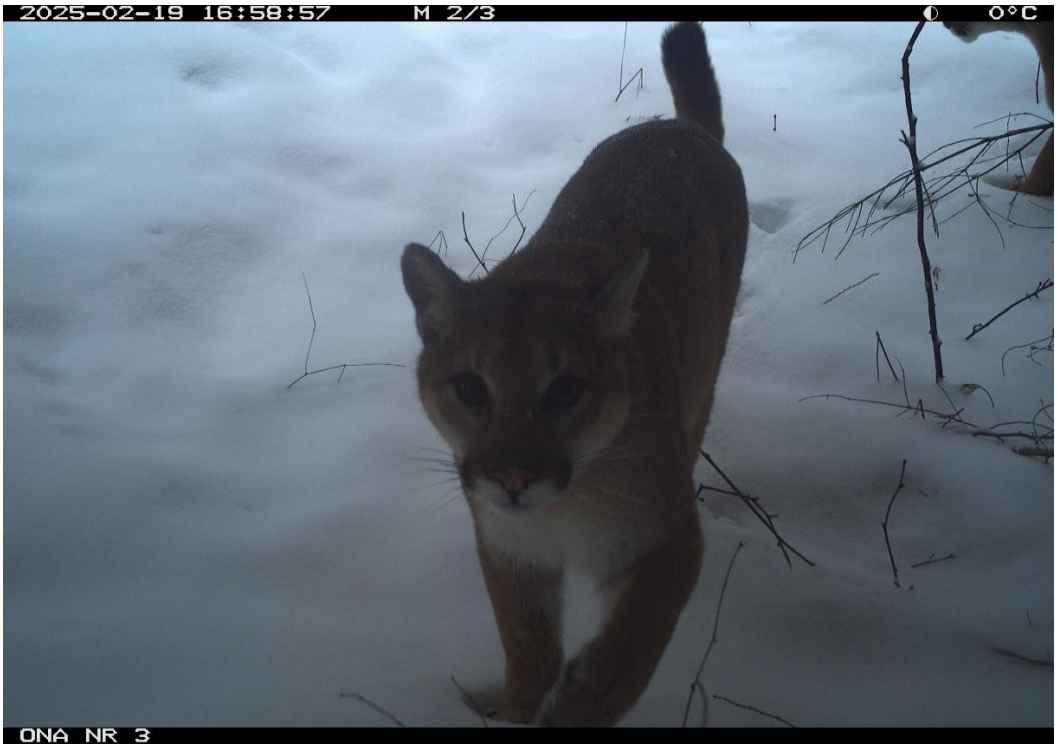

Figure 20: Wildlife cameras installed and reviewed by ONA staff at Arrow Lake Conservation Area (NTBC) documented cougars (pictured), elk, White-tailed deer, Snowshoe hare, American red squirrel, humans, and domestic dogs.

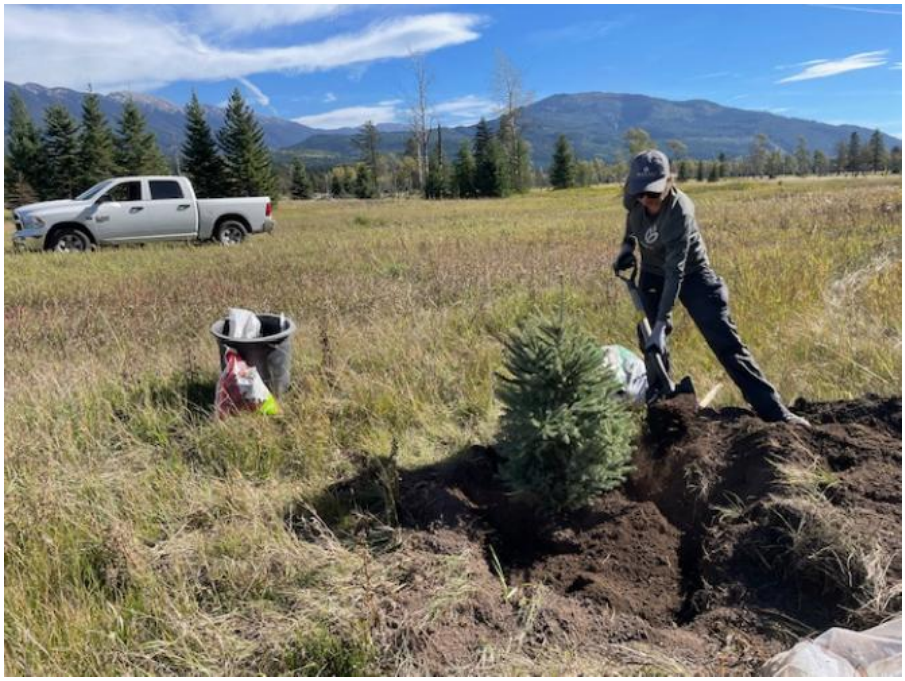

Figure 21: Planting White spruce (10 gallon stock) at Big Ranch Conservation Complex (NTBC).

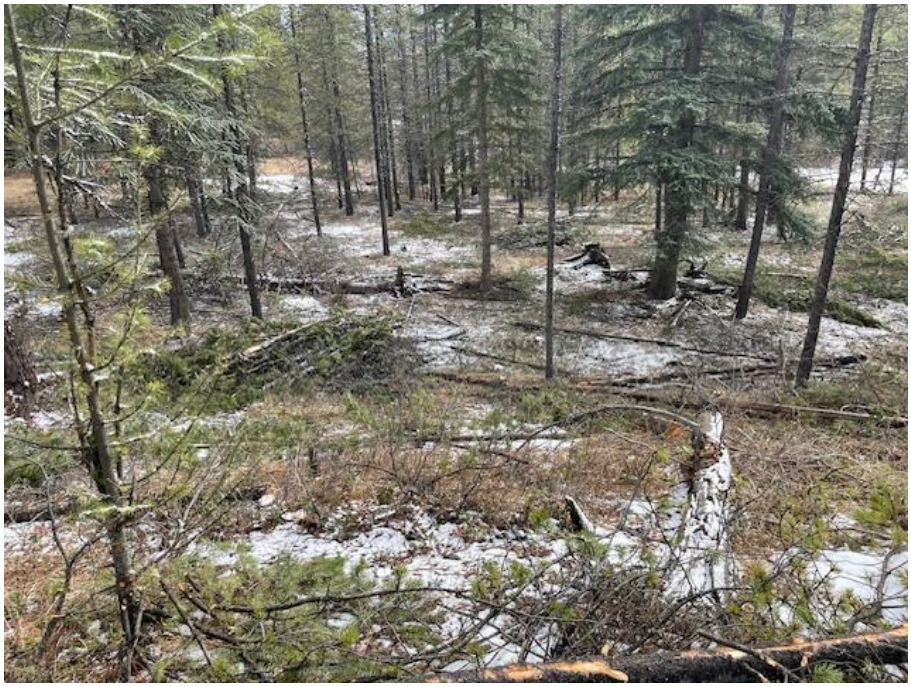

Figure 22: Forest thinning treatments in progress by Ktunaxa Nation-owned Nupqu Resource Development at Big Ranch Conservation Complex (NTBC).

Cover image: Observing Great blue heron and other wildlife at Waldie Island Conservation Area (NTBC), from shore.