Environment and Climate Change Canada
Canada Nature Fund: Community-Nominated Priority Places for Species at Risk

Kootenay Connect: Wycliffe Focal Area

6WC Invasives
6WC Fencing

March 12, 2025 Final Report

Photo: Graham Osborne

Kootenay Connect is a project facilitated by the Kootenay Conservation Program

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CONTENTS

Photos Courtesy of:

NTBC, RMTNRS, EKISC, Mountain View Resources & Graham Osborne

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EKISC
Masse Environmental Consulting Ltd. / Ecologic Consultants Ltd.
NTBC (Morag Turnbull)

1. BACKGROUND – WYCLIFFE CONSERVATION PROPERTY COMPLEX AND PROJECT:

The Wycliffe Conservation Area Complex (the "Complex) is located just south of Kimberley, BC, and is comprised of twenty-three parcels totaling more than 1,109 hectares (2,740 acres). The complex includes parcels secured by The Nature Trust of British Columbia (NTBC), the Nature Conservancy of Canada (NCC), and the BC Ministry of Water, Land and Resource Stewardship (MWLRS or The Province), together known as the "Conservation Partners" or "Partners". Figure 1 shows the land management theme. In early 2024, NTBC was able protect additional private parcels in the area when it announced the completion of the ~450 acre Wycliffe Prairie securement project in September. This new conservation area has not been complexly integrated into the Complex at this time. Thus, it is not included in mapping and reporting metrics.

The Complex is ecologically significant with a diversity of habitats that support several species at risk, while also functioning as an important wildlife corridor. The size and configuration of the Complex, located between the two largest communities in the East Kootenay, heightens its importance to regional conservation efforts.

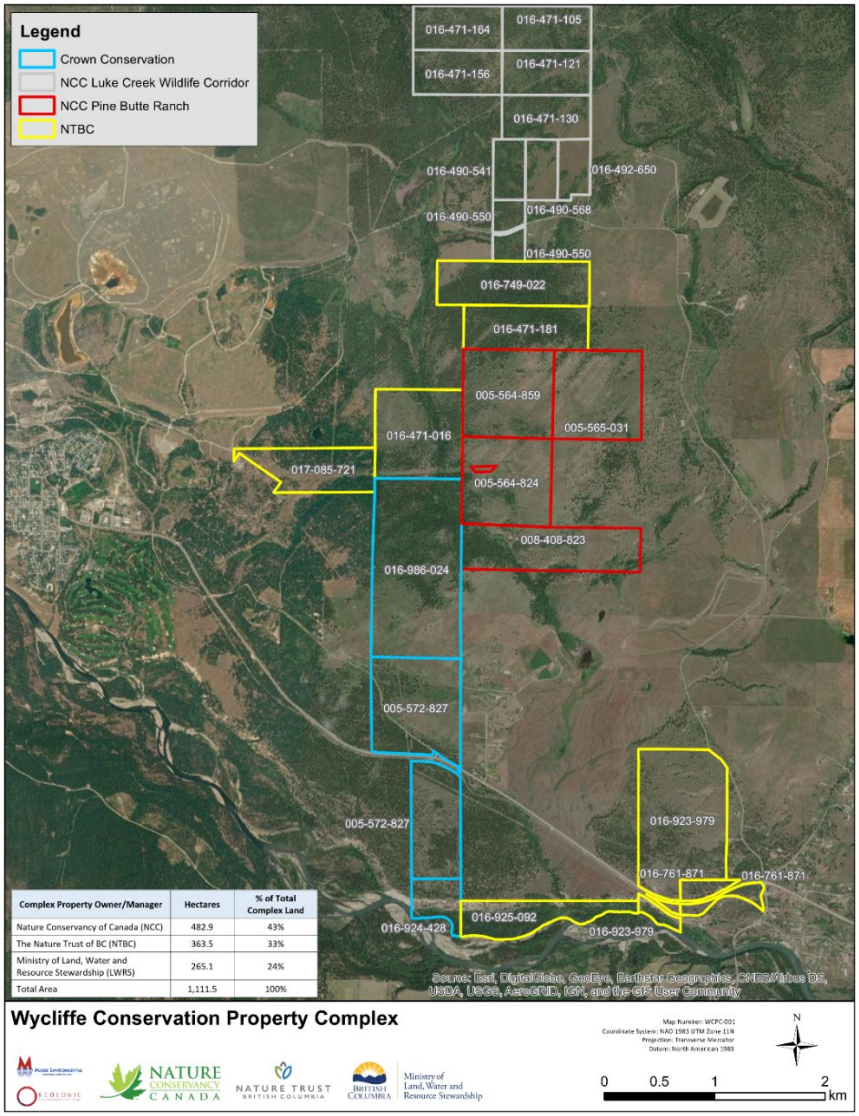

Figure 1: Wycliffe Conservation Complex – Conservation Context Map

In 2018-19, the Conservation Partners began working to secure funding for a large-scale, multi-year project to maintain, enhance and restore ecological conditions across the Complex. External funding would be necessary to support the Partners vision, particularly since internal funding amongst the organizations was limited. Fortunately, the Partners were successful in a grant application to the Columbia Basin Trust - Ecosystem Enhancement Program for $600,000, in the inaugural year of the program. However, this funding came with matched funding requirements. Despite this significant contribution, the Partners still needed to find a significant external grant to implement on-the-ground projects.

In 2019, the Kootenay Conservation Program - Kootenay Connect proposal to Environment and Climate Change Canada - Canada Nature Fund for Community Nominated Priority Places for Species-at-Risk was successful. As one of the focal areas within the proposal, the Wycliffe Conservation Property Complex received significant funding to serve as the requisite CBT match. This allowed the Partners to 'roll up their sleeves' and begin work on a multi-year project. The funding provided through the Kootenay Connect initiative was initially available for four years. But, in 2022-23, the Federal Government confirmed it would extend funding to Kootenay Connect for an additional three years, beginning in 2023-24. This final report summarizes activities that took place on the Complex in the sixth year of a seven-year project.

2. PROJECT IMPLEMENTATION BACKGROUND – YEARS 1 - 5:

In previous reports, a brief summary of annual activities preceding the relevant reporting year was included in this section. This information has not been included in 2024 reporting for brevity. Please refer to Kootenay Connect Years 1-5 final reports from NCC and NTBC which cover project accomplishments since 2019.

3. PROJECT IMPLEMENTATION – YEAR 6:

Year 6 of the project (fiscal 2024-25) marked another ambitious effort at the Complex, guided by a work plan comprised of several sub-projects. With another busy year on the books, the Conservation Partners again required a project manager to assist with procurement, contract development, coordination and supervision. Marc Trudeau, Executive Director with the Rocky Mountain Trench Natural Resources Society (RMTNRS) was thus contracted in May 2024 to serve in this role. This contract was funded entirely through CBT's financial contribution. Marc's time on the project was minimal compared to his initial involvement several years ago, focusing solely on forest thinning and fencing sub-projects. The Partners managed the other sub-projects, while also undertaking administrative functions like financial tracking, organizing meetings/agendas/minutes and reporting out.

Once again, the Partners hired the East Kootenay Invasive Species Council (EKISC) and its subcontractor (Mountainview Resources Ltd.), to implement invasive plant management across the Complex, as guided by the Wycliffe Conservation Complex Invasive Species Management Plan (2020). This included chemical treatment, treatment monitoring, long-term effectiveness plot monitoring, InvasivesBC data entry and reporting. A related sub-project that fell outside of the EKISC contract was the development and installation of one invasive plant public education/boot brush signage at the Complex, at NCC's Luke Creek Corridor parking area. Invasive plant management efforts in 2024 were primarily funded by CBT EEP with Kootenay Connect providing a sizable contribution, with NCC providing a small, source of internal cash.

NTBC administered contracts with two fencing specialists to complete five fencing projects across the Complex. In 2024, fence work included the removal of derelict fences, the replacement of old range fences utilizing a wildlife-friendly design, and the construction of one new build in a previously unfenced location. Two local fencing

contractors (Darkside Fencing Ltd. & Bootleg Contracting Ltd.) were responsible for these projects over the summer and autumn seasons.

Fence work completed in 2024 was funded through a variety of sources, as has been typical over the years. Kootenay Connect and CBT EEP once again provided a significant portion of the funding. Meanwhile, MWLRS provided a very sizeable cash contribution towards contract costs to replace fences on its own conservation area. MWLRS also contributed fencing supplies and materials. NTBC also provided some internal funding towards contract costs for various fencing projects implemented on its conservation areas. NTBC also paid for the services of a utility locator (Trace Underground Utility Locating) to verify that the layout of a proposed, new build would not impact the buried fibre-optic cable in the vicinity. One legal survey was required in 2024 (Skyline Land Surveying Ltd.) for the MWLRS project. All fence projects involved significant staff labour contributions from WLRS and NTBC.

The remaining sub-projects implemented over the past year were led by NCC (with RMTNRS support), which included forest-thinning and recreation management, which focused primarily on the development of interpretive and regulatory signage with comprehensive First Nation engagement. NCC also led monitoring and maintenance efforts for previous forest thinning and fencing projects, with some assistance from NTBC. Incredibly, the 2025 field season will mark the seventh and final year of the project. As we wind down our efforts at the Complex, we look forward to sharing detailed results from the past year.

4. 6WC - INVASIVE SPECIES MANAGEMENT DESCRIPTION & HIGHLIGHTS:

While NTBC was responsible for administering invasive plant management, it collaborated with the Partners throughout the sub-project. Invasive plant control efforts occurred across all three Partner jurisdictions. The expansion of invasive plant education and preventative signage on the Complex was limited to one additional location in 2024, at a public parking area/trailhead providing access to the NCC Luke Creek Wildlife Corridor.

In the spring of 2024, the Conservation Partners invited the East Kootenay Invasive Species Council to submit a proposal and costing. A non-profit society, EKISC seeks to prevent and reduce the spread of invasive species in the region by connecting a broad range of partners and stakeholders to undertake management actions and communicate knowledge.

Because it developed the Invasive Species Management Plan (ISMP) in 2020 and has led on-the-ground management efforts since, EKISC was the obvious choice to serve as the contractor again in 2024. On May 16th, EKISC submitted a detailed proposal with costing, to the Conservation Partners. The proposal incorporated Invasive InvasivesBC data, ISMP recommendations and field experience from the last four treatment years into a logical approach.

Over the course of two months, EKISC and NTBC corresponded several times to make some minor revisions to the budget and work plan. A contract between the parties was finally executed on July 1st.

Chemical treatment took place throughout August and September, while data entry and report writing occurred over the winter months. A draft report was submitted to NTBC on February 11, 2025, which was reviewed by the Conservation Partners. Following some minor revisions, a final report and all deliverables were shared with the Partners in early March. The Partners are happy to report that the we exceeded the goal listed in its Kootenay Connect contribution agreement to address 20-25 hectares of treatment. In the end, 33.76 hectares within the Complex where chemically treated for invasive plant control.

It is important to emphasize that all invasive fieldwork associated with this sub-project was dedicated to invasive plants, as they are the primary alien threat to conservation values on the Complex. Invasive species, more broadly, receive attention in the ISMP and will be important to monitor. However, they are not currently a known threat within the Complex.

The following provides a summary of the results of this sub-project. EKISC's final report (Wycliffe Conservation Property Complex Invasive Plant Management Report 2024) was the source for most of the following information.

Inventory:

- Inventory was not a focus of fieldwork in 2024, primarily because a comprehensive effort was completed on the Complex at the time of the ISMP development in 2020.
- However, the subcontractor undertook limited inventory during treatments, capturing new or previously unrecorded infestations. These were later entered into the InvasivesBC database by EKISC staff and will be used to inform future treatments.

Photo 1: Boomless nozzle treatments via ATV were the primary treatment method across the Complex again in 2024 by Eric Holm, pictured.

Photo 2: An visual example of a previously treated area on the right, with untreated Sulfur cinquefoil on the left.

Treatment Background:

- Treatments were informed by a comprehensive inventory completed across the Complex in 2020 that was incorporated into the ISMP. The 2024 treatment plan considered the ISMP, InvasivesBC data from 2021-23, local knowledge of the EKISC sub-contractor, and any new infestations that were discovered in 2024.
- Chemical treatments were implemented by long-time EKISC sub-contractor Eric Holm of Mountainview Resources Ltd. Mountainview Resources has led treatments on the Complex since 2020.
- All chemical treatments utilized Clearview, a Class 2 & 4 Herbicide manufactured by Corteva Agriscience and approved for use in Canada by the Pesticide Management Regulatory Agency (Health Canada). Clearview is a selective herbicide for post-emergent control of annual and perennial broadleaf weeds, invasive plants and shrubs on rangeland, permanent pasture, rights-of way, industrial and other non-crop areas of Canada. The herbicide is packaged as wettable granules and contains Aminopyralid, present as potassium salt (52.5%) and Metsulfuron – methyl (9.45%). The herbicide has low mobility, meaning it can be used up to

the drip line of trees, nor is metabolized by livestock or wildlife, and has persistence in the soil (up to 24 months under ideal conditions).

Treatment Priorities:

- For the EKISC contract, chemical treatments were guided by three different priorities.
- The treatment priorities are described in detail, below:

Priority 1

- Treated vectors of spread (roadways, high use recreation areas, trails, parking areas/trailheads, etc.) for low distribution species including Common Tansy, Diffuse Knapweed, St. John's Wort, Common Burdock, Orange Hawkweed, Blueweed, and Spotted Knapweed.
- Treated occurrences of other low to medium distribution, but low priority species such as Hounds Tongue, Dalmatian Toadflax, Oxeye Daisy, and Canada Thistle only advantageously (i.e., when nearby target species are being treated) to reduce spread.
- In areas where Ecosystem Restoration (ER) work will be taking place in future (tree thinning), treatments focused on satellite or outlier sites of Sulphur Cinquefoil and Yellow Hawkweed adjacent to and within the Treatment Units (TUs). For the 2024 treatment season, this included from highest to lowest priority, as resources allowed: i) MWLRS treatment unit on east side of Highway 95A (highest priority); ii) NCC treatment units TU 1, 2, & 3, and; iii) NTBC TU 1,2&4.
- Treatment along Miles Road from road edge to fence line on both sides of the road and further beyond onto NCC conservation area, located beyond highway fence on western side of the road.

Priority 2

- Following the completion of Priority 1 treatments, the following Priority 2 treatments were implemented using a land base calculation where approximately 43% was allocated to NCC, 32% was allocated to NTBC and 24% was allocated to MWLRS and included:
  - Treatment of all infestations of Yellow Hawkweed and Sulfur Cinquefoil within the containment lines in NCC's Luke Creek ER units x 2 (TU 1-3), MWLRS Western ER unit, and NTBC's Upper Luke Creek ER unit (TU3) and NTBC Trap & Skeet ER unit which were previously thinned in between 2021-24, thus reducing further spread.

Priority 3

- Following the completion of Priority 1 and 2 treatments, remaining time/funds were allocated using a land base calculation (as above) for:
  - Treatment of satellite or outlier sites all infestations of Yellow Hawkweed and Sulfur Cinquefoil within the containment lines in NCC's Luke Creek ER units x 2 (TU 1-3), MWLRS Western ER unit, and NTBC's Upper Luke Creek ER unit (TU3) and NTBC Trap & Skeet ER unit which were previously thinned in the years between 2021-24, thus reducing further spread.
  - A broadcast treatment (1-2 boom widths) along the inside fence line of NCC's Luke Creek Property from north to south, along the westside of Miles Road.
  - A limited, grided broadcast treatment of the NTBC Trap and Skeet club lease area (mowed and unmowed fields).
  - Treatment of adjacent areas where private landowners were actively treating high distribution species such as Sulfur Cinquefoil and Yellow Hawkweed by treating the fence line/border where the Complex meets privately owned parcels, as "good neighbour" approach.

Treatment Results:

- Treatments took place over fifteen days between August 23 and September 20, 2024. They were all conducted using side-by-side ATVs equipped with boom-less nozzles for efficient treatment (Photo 1).
- The sub-contractor spent 7.3 days on Priority 1 treatments, 5 days on Priority 2 treatments and 3 days on Priority 3 treatments.
- A total of 33.76 hectares of chemical treatment occurred across the Complex in 2024. This represents the second largest treatment footprint to date which occurred at 22 different treatment points.
- Of the 33.76 hectares of total treatment, it was estimated that 9.37 hectares represented new treatments, accounting for roughly 28% of all work completed over the field season.
- The total area-based treatment can be broken down as follows: MWLRS conservation areas (5.98 ha), NCC conservation areas (17.45 ha), and NTBC conservation areas (10.33 ha).
- In total, 6.76 kilograms of undiluted Clearview herbicide was applied.
- The primary invasive species controlled, included: Blueweed, Dalmatian toadflax, Spotted knapweed, St. John's Wort, Sulfur cinquefoil.
- No mechanical treatments were undertaken in 2024.
- All treatment data was recorded in InvasivesBC, the new provincial geo-database for invasive species in BC.
- Limited photos were taken during treatments, some showing the results/success of treatments from previous years (Photo 2).
- Treatment maps, based on GPS tracking were developed and included in the EKISC final report (see Figure 2 below as an example).

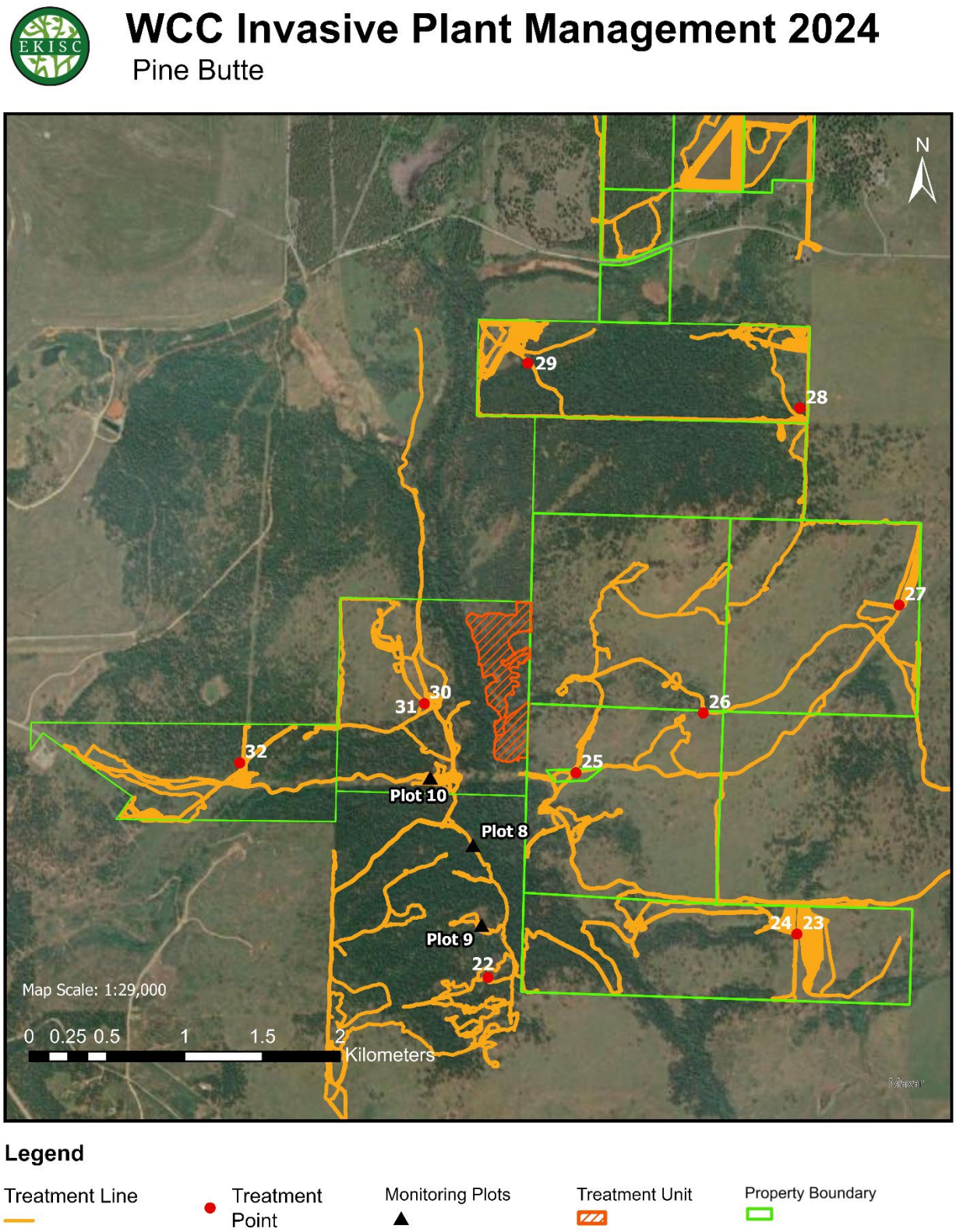

Figure 2: Example of GPS'd treatments across a portion of the Complex in 2024

Treatment Monitoring Results:

- The contract with EKISC stipulated that a minimum of 10% of treatments be monitored for efficacy and site completion following treatment.
- EKISC staff undertook monitoring activities on October 9 and October 17, 2024, a suitable gap between August and September treatments.
- Monitoring occurred on 14 of 22 treatment points (representing 64% capture) which is significantly more than contract requirements. Six points were monitored on NTBC conservation areas, three points were located on MWLRS conservation areas and five were on NCC conservation areas (Photo 3).
- EKISC monitors did not identify any performance issues, with all treatment points receiving passing scores. On average, the sub-contractor achieved 10 out of 10 for site completion and 9.7 out of 10 for efficacy.
- Common Tansy, located in very limited density and distribution on the Complex was not found in 2024, meaning that treatments have been successful in eradication, with the last treatment being in 2022.
- An EKISC staff person also accompanied Mountainview Resources Ltd. on a ride-along while conducting treatment on NCC's Luke Creek Conservation Area in September (Photo 3). This provided an additional opportunity to document the impact of treatments on invasive plant infestations across the Complex.

Photo 3: Monitoring photo shows the parallel tracks of an ATV used for treatment at a NTBC conservation area on October 17, 2024.

Photo 4: EKISC staff monitoring 1 of 11 long-term effectiveness plots across the Complex

Long-term Effectiveness (Vegetation Plot) Monitoring:

- The Partners are committed to long-term effectiveness monitoring of chemical treatments and in concert with EKISC, established 11 long-term effectiveness monitoring plots across the Complex in 2020.
- A modified protocol of the Province's Ecosystem Restoration Program Routine Monitoring Protocols for Understory Cover Sampling is being utilized for these plots.
- After getting baseline data in 2020, plots were monitored for the first time following treatments in June 2021, 2022 and 2023. In 2024, the plots were visited by EKISC staff on July 4 (Photo 4).
- Plot data in 2024 found the most common invasive species to be Sulfur cinquefoil and Downey Brome (cheatgrass), observed in 5 of 11 plots, which anecdotally appears consistent for the wider Complex.
- The overall mean invasive plant percentage cover has increased in several plots since 2023 (Figure 3), which is primarily due to the increased density and distribution of cheatgrass and Yellow hawkweed. Cheatgrass was not found in any of the plots in 2020 and thus, its rate of establishment and spread is concerning.

- Since lower priority invasive species are not being treated annually due to limited financial resources, they are increasing within many of the plots. Also, there is no effective tool currently available to treat cheatgrass since proven herbicides are not yet approved for use in Canada.
- On a more positive note, there continues to be a decrease in invasive plant percentage cover for high-priority species like Blueweed, Spotted knapweed and St. Johns Wort, which are treated annually. The greatest decrease in species occurrence happened between plot establishment in 2020 and the first chemical treatment in 2021.
- What appears to be happening at the plots is that widespread and lower priority species, which are harder to manage with current resourcing and tools, are expanding. In areas where the highest priority invasive species are controlled, the site conditions are not healthy enough to re-establish native plant communities in time. In turn, lower priority and more ubiquitous invasive species are colonizing these sites in a display of 'invasive species succession'.
- It is important to consider that the above observations are for the 11 plots only. However, what we are seeing at the plots is, in many cases, somewhat representative of the situation across the Complex.

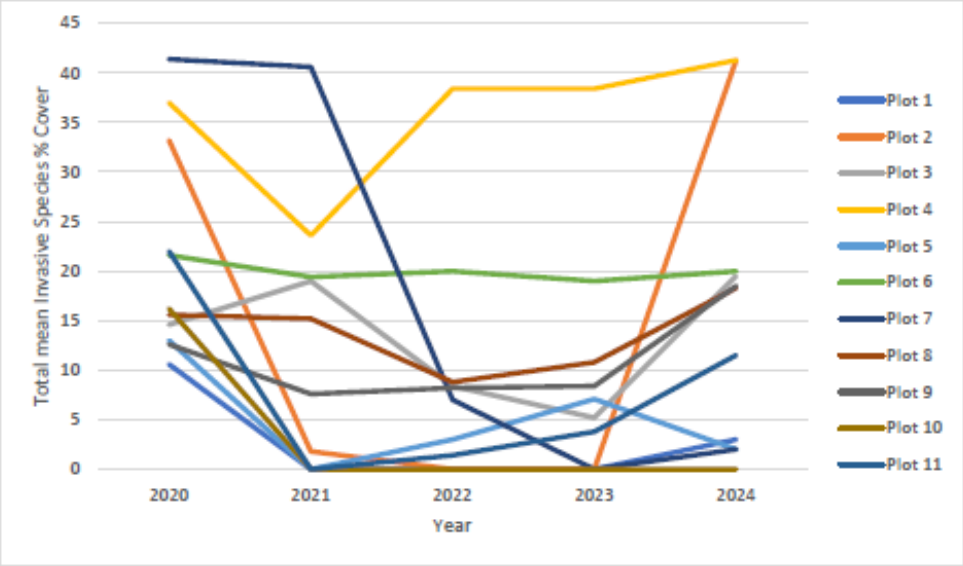

Figure 3: Total mean invasive species percent cover at monitoring plots within the Wycliffe Conservation Complex 2020-2024

Data Entry (InvasivesBC):

- The contract stipulated that all treatment and inventory data be inputted into InvasivesBC by December 1, 2024, as required by the Province.
- This was deliverable was met, and an InvasivesBC extract was shared with NTBC, including new surveyed infestations as well as, all treatment data.

Biocontrol:

- EKISC submits requests to the Province annually for biocontrol (which is the only agency permitted to collect and distribute biocontrol in BC).

- The use of biocontrol at the Complex would add another important pest management tool in the toolbox. However, EKISC has not received any biocontrol agents for several years. EKISC will continue submit requests on behalf of the Partners for future biocontrol releases at the Complex.

Final Report:

- EKISC delivered a final report summarizing all project activities completed under the contract (Figure 4). The report included treatment metrics and maps, tables and monitoring results. Other deliverables included: spatial data, long-term effectiveness plot data, photos and videos, and InvasivesBC treatment and inventory extracts.
- Recommendations included in the final report will be utilized for 2025 work planning.

Invasive Plant Bootbrush Signage:

- A minor component of invasive plant management efforts focused on public education and awareness through the purchase of one sign/bootbrush station for the Complex, paid for using CBT funding.
- The Partners previously worked with EKISC and Rigby Signs in 2023, to customize invasive plan signage for the Complex
- In 2024, a single sign/bootbrush station using the same template was ordered from the sign maker and installed at the parking area/trailhead to NCC Luke Creek Wildlife Corridor (Photo 5). NCC arranged installation in the autumn with Bootleg Contracting Ltd., which was paid for internally by NCC. There is now a total of three signs/stations across the Complex.
- It is hoped that these efforts will enhance public knowledge about invasive plant species and lead to small behavioural changes that may the risk of spread and establishment.


Wycliffe Conservation Complex Invasive Plant Management Report

2024

EKISC

Ministry of Water, Land and Resource Stewardship

NATURE CONSERVANCY CANADA

NATURE TRUST BRITISH COLUMBIA

Prepared for:
Ministry of Water, Land, and Resource Stewardship
Nature Conservancy of Canada
Nature Trust of British Columbia

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Contract No. 2024-78-KR

February 11, 2025

Figure 4: A screenshot of the 2024 final report that EKISC produce to summarize all invasive plant management efforts across the Complex

Photo 5: The installed bootbrush signage at NCC Luke Creek Wildlife Corridor parking area/trailhead, December 2024

5. 6WC - FENCING PROJECT DESCRIPTION & HIGHLIGHTS:

The twenty-three parcels that make up the Wycliffe Conservation Complex interface with many private and Crown parcels. Given the ecological values of the Complex, particularly Species-at-Risk habitat vulnerability, it's important that conservation areas managed by NCC, NTBC, and MWLRS have demarcated and fenced boundaries, to control use and access. Unmanaged livestock grazing and motorized vehicle trespass have historically threatened conservation values but can be mitigated by well-designed, constructed and maintained fences.

In 2024, there were several fence projects implemented across the Complex that succeeded in removing derelict fences, replacing old/non-functional fences with new wildlife-friendly designs, and one completely new installation. These projects were all implemented to either maintain, restore or enhance the ecological values within this important assemblage of conservation areas.

Fence Assessment and Plan:

The need to survey existing fencelines and determine fencing priorities was identified in 2018 by the Conservation Partners, before this multi-year project was funded. This need was later corroborated by consultants who developed the Wycliffe Conservation Property Complex Management Plan (2021), where they identified the need to develop a 'Property Complex Fencing Plan'.

In 2021, the Conservation Partners began to address this need by developing a fence assessment tool. Next, field documentation of all fence segments was completed using a spatial data software app for mobile devices (ESRI Field Maps). A total of 103 fencelines were sorted by score into four priority categories for management consideration (*Very High, High, Moderate,* and *Low*). The higher the score, the higher the priority a fence segment was to address. Initially, there were many *Very High* and *High* priority fence needs. This resulted in some difficult choices over the first 2-3 years of the project. In some cases, lower priority projects (Moderate and Low) were selected for ease of access, budget constraints, and contractor availability. In 2024, five fence projects were identified, representing a decrease in the number of jobs and the total linear fence work when compared to previous years.

Procurement

Fencing projects were competitively sourced by the Conservation Partners for two of five projects, while three other projects were direct awarded by NTBC.

For projects awarded through a tendering process, the project manager conducted site visits with the Conservation Partners and developed a bid document in early July. This work confirmed that two, linked boundary fence jobs along the legal boundary of the MWLRS conservation area were of highest priority in 2024. A mandatory site viewing was held on July 26th, with five contractors attending. Four bids were received the following week and were immediately evaluated by the Conservation Partners and Marc Trudeau on August 2nd. Darkside Fencing Ltd. had the most competitive bid and was awarded both jobs (1a & 1b), based on the understanding that additional funding would need to be secured to make up the shortfall. This funding was later sourced internally from MWLRS.

Meanwhile, NTBC direct awarded two fence removals and one small, rail fence build to Bootleg Contracting Ltd. Since the contractor had a detailed knowledge of the conservation area and the proposed projects, NTBC staff felt that a direct award made sense given the minor project costs and the efficiencies that would be realized.

Fence Specifications & Design (Wildlife-Friendly):

Scientific literature and real-world observations confirm that fences can act as a deterrent, even a barrier, to wildlife movement across the landscape. Because the Wycliffe Conservation Complex is a regionally significant wildlife connectivity corridor, fence design and build specifications needed to consider this attribute. As a result, all fences were designed to be 'wildlife friendly', with several modifications to MWLRS Four Strand Barbed Wire Fence Specifications, including some provided by the Alberta Conservation Association. The wildlife friendly design/build considerations utilized in 2024 included:

- For range fence builds, only four-strand builds were completed to increase wildlife permeability.
- For rail fence builds, only two-rail builds were implemented, also to increase wildlife permeability.
- MWLRS Jobs 1A and 1B utilized barbless-barbed wire for all four strands. This is the first time this product has been used for a fencing project at the Complex. It provides several benefits: it's strong and durable, does not cut wildlife passing over/thru/under, and is easier and more efficient for a contractor to install.
- For range fence builds, the maximum top strand wire height was 40", with the bottom strand being hung 18" from ground. This helps to increase wildlife passage over the fence, and for young-of-the-year to pass underneath.
- For rail fence builds, the maximum rail height was 38", with the bottom rail being hung 22" from the ground for the same reasons noted above.
- Range fences utilized droppers to improve fence rigidity, while also reducing entanglement risk by increasing fenceline visibility to ungulates and other wildlife.
- This year we did not utilize high-visibility fence markers or staple locks (intentional changes in wire height and configuration to improve passage).
- NTBC deployed several trail camera's on fence builds from 2024 and 2023 to increase understanding as to whether the design and build modifications are working. Photos 6 & 7 provide further proof of concept.

Photo 6: Job 3 rail fence in Feb 2025 with a mule deer jumping over the newly constructed fence, with a second behind.

Photo 7: Whitetail deer crossing a fence in Spring 2024, after being built the year prior using a staple lock.

Legal Surveys, Utility Locates, Permissions & Access Agreements:

Fence replacement and construction is a considerable expense and diligence is required to ensure works are not in trespass. For 2024 fence projects, legal surveys were not necessary for removal jobs, nor were they required for the new NTBC build, as it was located away from the parcel boundary. However, the fence removal and replacement along the eastern parcel boundary of the MWLRS conservation area (Job 1a & Jb) directly abutted 11 neighbouring acreages, including the newly secured NTBC conservation area. As a result, NTBC hired Skyline Land Surveying Ltd.

to conduct a legal survey and staking of this parcel boundary, paid for by CBT funds. The survey was completed in early July, ahead of the mandatory site viewing with contractors, which was very helpful (Photo 8).

While the new build on an NTBC conservation area (Job 3) did not require a legal survey, a BC 1 Call report showed that the proposed fence line was proximal to buried fibre optic cable. The project manager was able to find a local professional utility locator service based out of Yahk. NTBC entered into a contract with Trace Underground Utility Locating, who visited the site in early September with their specialized equipment to confirm the planned fence routing would not pose a risk to underground infrastructure (Photo 9).

The MWLRS fence replacement project (Job 1a & Job 1b) had an additional obstacle as it crossed a FortisBC high pressure natural gas line. The project manager led the authorization process with the utility company. This necessitated FortisBC staff on-site in late October to assist the fencing contractor with the safe location of posts (Photo 10). In the end, some of the posts had to be hand-dug to ensure safety.

Logistical challenges at the Complex have often involved challenging access to the fencelines. For all projects completed in 2024, this was not an issue. The projects were all located close to roads where access could be easily gained. In several instances, it was more efficient for the contractor to access MWLRS fence replacement locations through adjacent acreages (Photo 11). This was informally agreed to between the contractor and landowners.

Photo 8: Job 1a prior to work with survey stake/flagging Shown in the centre of the photo, summer 2024

Photo 9: Pin flags show the location of buried utilities near NTBC Job 3, September 2024

Photo 10: FortisBC overseeing fence post removal and installation in the vicinity of a high-pressure natural gas pipeline, October 2023

Photo 11: At times, Job 1a & 1b required access through adjacent private acreages for fence construction

Fence Project Results & Discussion:

Fence projects took place between August and November 2024 and were led by two experienced, local fence contractors that had previous work experience on the Complex. The contractors each employed crews of between 2-4 workers, depending on the job. Late summer conditions provided an unusual work window as wildfire risk levels had lowered. Meanwhile, autumn weather and conditions were favourable, with work wrapping up just before the first snowfall. Due to ideal conditions and excellent planning, coordination and engagement, all projects were completed efficiently and without any operational challenges.

Darkside Fencing Ltd., had fewer jobs (MWLRS Job 1A & 1B) but, these were considerable in scope. Meanwhile, Bootleg Contracting Ltd. had three jobs awarded to it in total (NTBC Job 1, 2 & 3). However, these jobs were relatively small and straight-forward.

The 2024 fencing season was a productive, but the Partners fell short of the goal listed in its Kootenay Connect contribution agreement to address 3,000 linear metres of fence work. The partners were successful, however, in meeting the goal of benefitting 292 hectares of habitat through completion of these fencing projects, all which were previously counted hectares, in earlier project years.

In total, approximately 2,795 metres of fence was addressed in 2024, through five separate jobs. This included 1,705 metres of fence replacement (including removal), 1,015 metres of fence removal, and a 75 metre new build. All fencing work targeted either visitor, livestock or wildlife objectives. The fencing projects benefitted 293 hectares of conservation area.

The following section provides a detailed summary of all fencing projects completed, including the use of images and a map (Figure 5) which provides a visual representation of the work across the Complex.

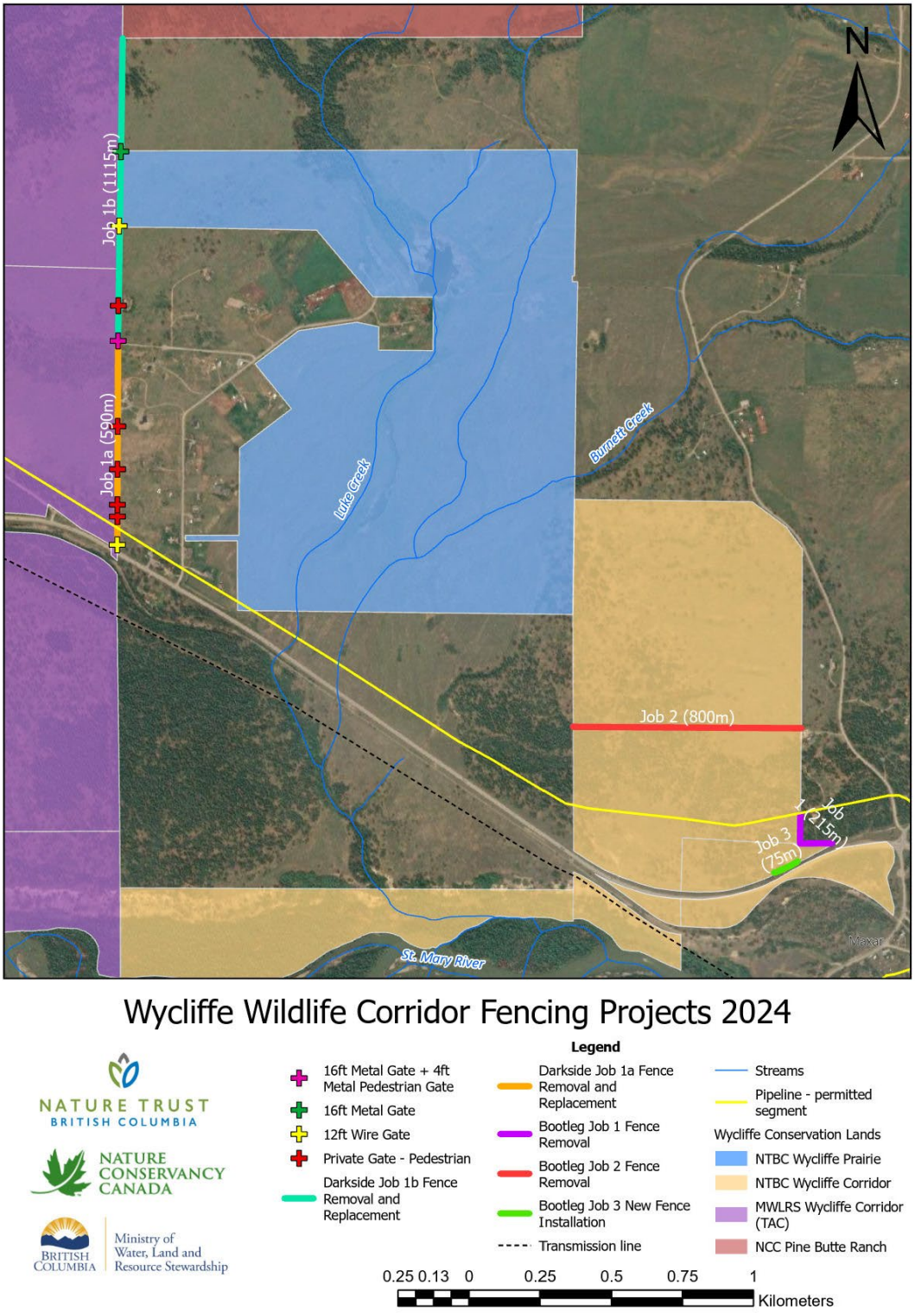

Figure 5: Wycliffe Wildlife Corridor Fence Assessment and Projects (2024)

Project/Job 1a & 1b: MWLRS (PID 005-572-827 and PID 016-986-024) / 11 Private Parcels – Fence Replacement

- These projects were funded by Kootenay Connect (~1/4), Columbia Basin Trust – Ecosystem Enhancement Program (~1/4), with the remaining half being paid for with internal MWLRS funding. MWLRS also provided fencing materials and supplies from its stockpile, including wire and posts.
- The projects, while listed as two fencelines, were effectively one contiguous project, separated into northern and southern segments by the McClure Road public access. The fencelines were tendered as two separate jobs, since the Partners were originally unsure that they'd be able to afford both. MWLRS was able to find additional funding to ensure that both jobs could be completed at once.
- The projects included several fenceline segments in the Wycliffe Fencing Complex Plan, which ranged in score from a Low Priority of 5/80 to a Moderate Priority of 41/80.
- The projects required a legal survey and staking prior to construction, since the fence interfaced with eleven private parcels. The legal survey was paid for by Columbia Basin Trust – Ecosystem Enhancement Program and fulfilled by Skyline Land Surveying Ltd.
- MWLRS staff spent considerable effort over several months contacting and meeting with adjacent acreage owners to inform them of the project and to ensure that gate replacement and fence configurations would be amenable to them. While private landowners did not contribute to fence costs, any that wanted a pedestrian gate were required to provide them - at their cost.
- Job 1A required a permit from FortisBC, as it traversed a high-pressure natural gas pipeline. The permit meant that FortisBC staff had to be on-site to pin-point the pipeline location for the safe installation of fence posts.
- The purpose of these projects was to remove and replace an approximately 1,705 metre range fence to demarcate the eastern boundary of the MWLRS conservation area.
- The fence that was replaced was in poor condition in many locations and was not effective at managing human access and use. There were also concerns that the fence conditions might result in livestock trespass. Photos 12 & 13 illustrate before and after fence conditions.
- The projects also included a re-design of the public entry to the MWLRS conservation area at McClure Road. The works now provide a safer, more aesthetic entry, while also including a service gate for operational vehicle access.
- The project included the installation of nine different gates of various sizes/types for pedestrian and/or operational access by conservation area managers.
- The replacement fence had the added benefit that it was designed and built using wildlife-friendly specifications, which the original boundary fence did not contain.
- Access to the project was secured through the MWLRS conservation area and adjacent private acreages.
- The projects were completed by Darkside Fencing Ltd. between October and November 2024 (Photo 14).
- The project included the removal and disposal of all posts and wire at the RDEK transfer station/landfill.
- Grass seeding of soil disturbances was undertaken by the project manager prior to snowfall, using a Wycliffe native grass seed blend.
- Several bird boxes were removed from the old fence, were stored and then re-installed in the same location on the replacement fence.
- This project replaced boundary fencing that benefitted approximately 180 hectares of conservation area in total, primarily for human use/access management. This benefit area was accounted for in previous annual reports, as other Kootenay Connect fence projects have been implemented on these parcels.
- Landowners and the public have complimented the Partners and the contractor on the fence build, which is located in an area of the Complex that receives high levels of public use at Potato Butte (Photo 15).

Photo 12: Job 1a prior to fence build, summer 2024

Photo 13: Job 1a after construction, November 2024

Photo 14: Ryan Blackmore of Darkside Fencing Ltd. led the build

Photo 15: A view of the Job 1b looking north at Potato Butte

Project/Job 1: NTBC (PID 016-761-871 and PID 016-923-979) – NTBC/Private Parcel - Boundary Fence Removal

- This project was funded entirely by internal NTBC funding.
- The project was ranked as a Moderate Priority with a score of 46/80 in the Wycliffe Fencing Complex Plan.
- The purpose of the project was to remove an L-shaped ~215 metre portion of boundary range fence in derelict condition, posing a hazard to people and wildlife. Photos 16 & 17 show the before and after fence conditions.
- The fence ran alongside the boundary of two NTBC parcels and an adjacent private acreage.
- Access to the project was secured through NTBC conservation area and adjacent BC Ministry of Transportation and Transit right-of-way.
- The project was completed by Bootleg Contracting Ltd. in late August/early September 2024.
- The contractor removed most of the posts and wire by hand, resulting in an easy and non-invasive removal.
- A few fence posts were left in-situ to serve as boundary markers, and to maintain existing signage.
- Holes caused from the post removal were collapsed/filled in to prevent tripping hazards
- The project included the removal and disposal of all posts and wire at the RDEK transfer station/landfill.
- Conversations with adjacent landowners confirm mutual interest in fence replacement here in 2025.
- This project removed boundary fencing that benefitted approximately 113 hectares of conservation in total, primarily for wildlife. This benefit area was accounted for in previous annual reports, as other Kootenay Connect fence projects have been implemented on these parcels.

Photo 16: Job 1 prior to removal, June 2024

Photo 17: Job 1 after removal, September 2024

Project /Job 2: NTBC (PID 016-923-979) – Internal Fence Removal

- This project was funded entirely by NTBC internal funds.
- The project was unranked and not included in the Wycliffe Fencing Complex Plan.
- The purpose of the project was to remove an internal drift fence ~800 metres in length bisecting the parcel. Photos 18 & 19 show the before and after fence conditions.
- The fence was thought to have been built in the early 2000's when the parcel was owned by The Land Conservancy of BC, which had a grazing arrangement with a local rancher.
- Wire had been removed by NTBC field crews several years ago. However, all posts and braces remained in place. Since NTBC had no plans to issue a grazing license on the parcel, the fence was slated for removal.
- The project was completed by Bootleg Contracting Ltd. in late August/early September 2024, which required some preparation to reduce the risk of an inadvertent wildfire start (Photo 20).
- Access to the project was secured through the Trap and Skeet Club/NTBC parcel.
- The contractor removed most of the posts and wire by machine (Photo 21), which was hauled out by trailer.
- Holes caused from the post removal were collapsed/filled in to prevent tripping hazards.
- The project included the removal and disposal of all posts and wire at the RDEK transfer station/landfill.
- This project removed boundary fencing that benefitted approximately 113 hectares of conservation in total, primarily for wildlife. This benefit area was accounted for in previous annual reports, as other Kootenay Connect fence projects have been implemented on these parcels.

Photo 18: Job 2 fence conditions prior to removal, June 2024

Photo 19: Job 2 conditions after removal, September 2024

Photo 20: Note the water pack on the quad, ready for fire suppression – if needed

Photo 21: Job 2 required an excavator to remove posts & braces

Project/Job 3: NTBC (PID 016-761-871) – New Fence Build – Near Parcel Boundary

- This project was funded by Columbia Basin Trust – Ecosystem Enhancement Program funding.
- The project ranked was unranked and not included in the Wycliffe Fencing Complex Plan.
- The purpose of the project was to install a ~75 metre section of wildlife-friendly rail fence near the parcel boundary to stop unauthorized dumping, sand theft and motor vehicle access (Photos 22 & 23).
- The project required a professional utility locator to visit the site to verify that buried fibre optic cable was not close to the proposed fence build.
- The fence was designed to discourage problematic access and guard conservation values of the parcel by using terrain features and forests to serve as fence terminus points. Photos 24 and 25 show the site, before and during the work.
- The fence was also designed to be wildlife-friendly with reduced top rail height and a generous gap between the bottom rail and the ground.
- Bootleg Contracting Ltd. completed the fence build in early September 2024.
- Access to the project was secured the adjacent BC Ministry of Transportation and Tourism Right-of-Way.
- Boundary and non-motorized warning signage was installed on the fence after its build.

- Grass seeding of soil disturbances was undertaken by NTBC staff prior to snowfall, using a Wycliffe native grass seed blend.
- This project built fencing that benefitted approximately 113 hectares of conservation in total, primarily for wildlife and to manage human access and use. This benefit area was accounted for in previous annual reports, as other Kootenay Connect fence projects have been implemented on these parcels.

Photo 22: Tire tracks & holes at location of sand theft, June 2024

Photo 23: ATV tracks led to an illegal dumpsite on the conservation area, June 2024

Photo 24: Job 3 prior to construction, June 2024. Note unauthorized access up sandy hill.

Photo 25: Job 3 during construction, September 2024

6. CONTRACT REPORTING DELIVERABLES:

This report satisfies the requirement of a Summary Report, as per NTBC's Contribution for 2024/25 Kootenay Connect funding. A separate Results Report (At-a-Glance Summary) has also been produced and shared by NTBC. Meanwhile, interim reports were submitted at the established reporting dates throughout 2024. A video report has also been created through WeVideo and shared.

NTBC Kootenay Connect Year 6 deliverables as laid out in Schedule A of KCFA Service Contract 2024/25–WC–NTBC-01, have been shared with Marcy Mahr using a file-sharing service. These include:

6WC Invasives: ▪ Interim Reports (previously shared) ▪ Results Report ▪ Summary Report ▪ Data extracts (InvasivesBC) ▪ EKISC Final Report ▪ Relevant maps and spatial data ▪ Various project photos ▪ Video report	6WC Fencing: ▪ Interim Reports (previously shared) ▪ Results Report ▪ Summary Report ▪ Relevant map and spatial data ▪ Various project photos ▪ Video report

7. PROJECT FINANCIALS:

Documents related to project finances have been shared through an online file-sharing service also. They include:

- NTBC invoice to Kootenay Centre for Forestry Alternatives/Kootenay Connect;
- NTBC in-kind and cash declaration form;

8. CONCLUDING REMARKS:

NTBC, NCC, and MWLRS wish to thank Environment and Climate Change Canada and its Canada Nature Fund: Community Nominated Priority Places for Species at Risk for making these projects possible in 2024/25.

We were happy to share information about the project (including partners and funders), through four field tours conducted in 2024. These included audiences with the BC Grasslands Conservation Council/BC Institute of Agrologists, the Columbia Basin Trust/Northwest Power and Conservation, the KCP Securement Committee and the Yellowstone to Yukon Initiative.

The Wycliffe Conservation Complex Partners also wish to recognize the Columbia Basin Trust for providing multi-year funding through its Ecosystem Enhancement Project, which has been an important source of match funds. The Conservation Partners contributed invaluable cash and in-kind contributions again this year.

Thank you to the Kootenay Centre for Forestry Alternatives for its role as the fiscal sponsor of the Kootenay Connect initiative. We also appreciate the commitment and efforts by the project manager, Marc Trudeau and all contractors who carried out work across the Complex during the 2024 field season. Finally, a very big thanks to the Kootenay Conservation Program, particularly Michael Proctor and Marcy Mahr for their vision of Kootenay Connect! The on-the-ground results over the past six years have been impressive, both at Wycliffe and other focal areas.

We trust that this report satisfies all reporting requirements and we look forward to implementing a final year of Kootenay Connect projects at the Wycliffe Conservation Property Complex in 2025/26. If there are questions that arise from this report, please reach out.

Chris Bosman
NTBC Kootenay Conservation Land Manager
The Nature Trust of British Columbia
March 12, 2025