# Final Report:

# NTBC Land Stewardship Activities F22 – Conservation Youth Crew Program

COL-F22-W-3494



<u>Prepared for</u>: Fish and Wildlife Compensation Program

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# Contents

Executive Summary	3
Introduction:	4
Goals and Objectives:	4
Work Area:	4
Methods:	6
Results, Outcomes & Discussion:	6
Training & Professional Development	. 12
Work Activities	7
Recommendations:	. 14
Acknowledgements:	. 14
Conservation Youth Crew Photos:	. 15
Figure 1: NTBC Kootenay Region Overview Map	. 15 . 15 . 15 . 16 . 16
Figure 8: Assisting FWCP section staff in control of Yellow Flag Iris: Walter Clough	
Figure 9: Thistle control around wetland enhancement sites – Duncan Lardeau	
Figure 10: Signage replacement – Waldie Island	
Figure 11: Kiosk removal from Waldie Island	18
Bummers Flats Figure 14: Crew assessing erosion issues and fence condition – Duncan Lardeau	
Figure 15: Crew working alongside the Lake Windermere Rod and Gun Club during a volunteer bird bo	X
installation event - Edgewater	
Figure 16: Crew assessing the presence of invasive pumpkinseed fish in George's Pond – Cherry Creek Figure 17: Crew viewing the kokanee spawning channel after work on a West Kootenay trip– Redfish	
Creek	
Figure 18: Clean-up and access management project at Kidd Creek	. 20

# **Executive Summary**

In 2021, The Fish and Wildlife Compensation Program (FWCP) Columbia Board approved \$27,500 to support The Nature Trust of British Columbia's (NTBC) Conservation Youth Crew (CYC) program, which employs post-secondary students on an annual basis to implement important 'on-the-ground' operations and maintenance work. FWCP funding was leveraged and combined with other funders to make the project a success. The 2021 CYC workplan put a specific focus towards access management issues and the protection of conservation lands, identified in the FWCP's Columbia Region Upland and Dryland, Action Plan (COLUPD.ECO.HB.16.01). A significant component of the 2021 field season was also directed towards management of invasive plants in wetland and riparian areas, as identified in the Wetland and Riparian Action Plan (COLWRA.ECO.HB.14.01).

NTBC employed the CYC from mid April 2021 until the end of March 2022. The crew consisted of a Field Operations Technician, three crew supervisors, and three field crew members, for a total of seven seasonal staff. The Field Operations Technician worked from April 2021- March 2022, the crew supervisors worked from May – December, and the field crew members worked from May-September. The crew consisted of post-secondary students, with some students returning in the fall, and crew activities were overseen and managed by the Kootenay Conservation Land Coordinator and Land Manager. Of the crew members employed, three were returning employees, and four were new to the organization. The three returning employees served as the Conservation Crew Supervisors, and the newly hired staff served as Conservation Field Crew Members and the Field Operations Technician. The CYC helped to complete vital on-the-ground conservation work activities in the 2021 field season.

Although it was a challenging year logistically with the COVID-19 pandemic, the crew was still able to participate in several important training and professional development opportunities and undertook a variety of work activities, all with a focus on conservation. Aside from addressing specific FWCP Action Plans, some of the crew work activities included fence maintenance and repair, invasive species removal/inventory, kiosk and signage installation, hand seeding, litter removal, vegetation plot monitoring, wildlife camera installation and monitoring, infrastructure inventory, work plan prioritizing, and other basic assessments and inventories. These activities were carried out on 24 NTBC and BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) conservation properties/complexes throughout the Kootenay Region. The crew also spent several days assisting local biologists and experts with different projects, serving as on-the-job training for the crew. The following report compiled by NTBC staff provides more details on the 2021 CYC Program.

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

NTBC also wishes to acknowledge the other funders for the 2021 Conservation Youth Crew in the Kootenay Region. They include: The Conservation Economic Stimulus Initiative funding, The BC Wildlife Federation, The Habitat Conservation Trust Foundation, Employment Skills and Development Canada, and Wheaton Precious Metals.

## Introduction:

In 2021, NTBC continued its tradition of employing post-secondary students to establish a Conservation Youth Crew (CYC). That said, due to significant contributions of funding from the Conservation Economic Stimulus Initiative, and the BC Wildlife Federation, NTBC was able to hire a crew of seven in 2021. The Conservation Field Operations Technician, Crew Supervisors and Crew Members were supervised by the NTBC Kootenay Conservation Land Coordinator and Land Manager. Although the CYC's primary responsibility is to fulfill the objectives specified in the annual Kootenay Conservation Land Operation and Maintenance Plan, there were also other opportunities built into the work schedule. These opportunities enabled the crew members to network with local biologists and conservation groups to learn techniques which helped to prepare them for their upcoming careers in the environmental field. This aspect of the program is a very important component of NTBC's provincial mentoring initiative.

The 2021 crew was engaged in a variety of projects on NTBC and FLNRORD conservation properties in the East and West Kootenays. Work activities that took place on these properties are outlined below and contributed to important 'on the ground' conservation efforts that address specific actions within the FWCP Upland and Dryland, and Wetland and Riparian Action Plans.

The crew's 2021 field season began on April 12th 2021 and finished on March 31<sup>st</sup>, 2022. The Field Operations Technician began on April 12<sup>th</sup>, the Crew Supervisors on April 26<sup>th</sup>, and the Field Crew Members on May 6<sup>th</sup>. The Field Operations Technician and Crew Supervisor began early for planning and preparation purposes. The three Crew Supervisors were returning staff, which provided the benefit of the crew being able to mobilize quickly into a new season.

# Goals and Objectives:

The following list provides the goals/objectives for the Kootenay Conservation Youth Crew:

- NTBC, FLNRORD and funding partners enable a crew that assists with important operation and maintenance works on conservation properties in the region, thereby maintaining or enhancing wildlife and biodiversity values;
- b) Provide crew members (students or recent graduates of an environmental discipline) with important, related work experience to build their career;
- Address actions within FWCP's Upland and Dryland Action Plan focused on the Access Management Issues (COLUPD.ECO.HB.16.01)
- d) Address actions within FWCP's Wetland and Riparian Action Plan, focused on the prevention and control of invasive species (COLWRA.ECO.HB.14.01)

### Work Area:

The NTBC CYC's work area was the East and West Kootenay region, as shown in Figure 1 - Kootenay region Overview Map. This included work locations that ranged from the Columbia Valley in the north to as far south as Lake Koocanusa and the South Rocky Mountain Trench. Work stretched in the east from the Elk Valley to the Slocan Valley in the West. The below map shows NTBC conservation properties in the region but, does not depict FLNRORD conservation properties which are widely scattered throughout the region also. The map symbolizes which properties have been acquired with FWCP financial supports, as well of other management arrangements.

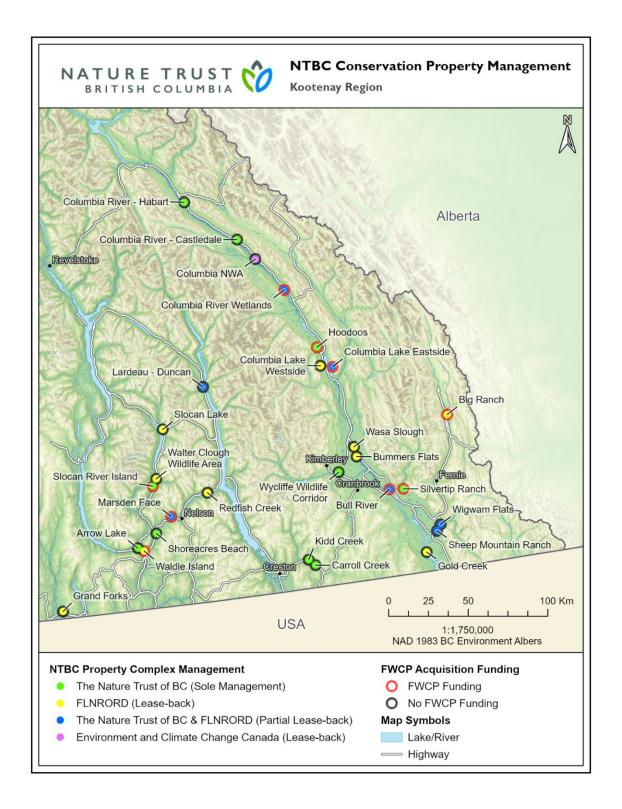


Figure 1: NTBC Kootenay Region Overview Map

#### Methods:

The project was delivered through a seven person CYC, inclusive of a Conservation Field Operations Technician, Conservation Crew Supervisors, and Conservation Crew Members. The annual work plan was established in advance of the crew's employment start. Since annual work activities took place over a wide geographic area, a focus on efficient project delivery was important. NTBC also made every effort to ensure that a culture of safety was developed by all crew members, some of whom had limited, previous work experience. The focus on safety was exaggerated in the 2021 season, as the crew started during an uncertain period of the COVID-19 pandemic. NTBC took extra measures of caution related to COVID-19, including having all staff travel with a maximum of two people per vehicle, which were fully equipped with sanitization supplies and personal PPE. Staff were also briefed weekly as the COVID-19 pandemic changed throughout the summer.

Work activities varied greatly but, there were best practices and methods employed by the crew to ensure safety, efficiency and effectiveness in their work. 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 the plants in a properly specified manner at local transfer stations and landfills. Hand pulling was done primarily prior to seed set, to reduce the threat of future spread and establishment. In some cases, gas powered weed whips or brush saws were used to cut plants to prevent their growth and seed set. Disturbed soils were re-seeded with native seed blends following project completion.

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 *Field Maps* App which was then later transferred into the Provincial Invasive Alien Plant Program (IAPP), thereby assisting with future treatment planning.

Other restoration work conducted by the crew, live-staking, re-seeding, and riparian planting 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 upgraded its *collector* App to a newer 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. These data are easily revisited for monitoring and updating in the field on subsequent visits. NTBC continued to work with FLNRORD trying to establish an agreement which would allow NTBC to use the *Field Maps* app for data collection and sharing on both NTBC and FLNRORD conservation properties.

Finally, for infrastructure construction, modifications and repair – basic carpentry and fence building best practices were employed that will ensure longevity in harsh, outdoor conditions. Fences were built and repaired to be wildlife friendly, using design and construction techniques and materials that do not serve as impenetrable barriers, yet, ensure that conservation properties are protected from cattle trespass and unauthorized motor vehicle access.

# Results, Outcomes & Discussion:

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

#### **Work Activities**

NTBC and FLNRORD conservation properties in the Kootenay Region were acquired for their outstanding wildlife habitat and biodiversity values. However, to ensure that these values are sustained and enhanced over time, it is essential that property infrastructure is maintained and habitat enhancement and restoration activities are implemented on an annual basis. Consequently, NTBC has been engaged, for many years, in employing post-secondary students, interested in conservation, to conduct maintenance and restoration projects on NTBC and FLNRORD properties throughout BC. This seasonal operation and maintenance program also provides permanent NTBC staff with an opportunity to establish a mentorship platform, enabling them to engage crew members in a number of special projects and to work with conservation specialists and professionals in the field.

In 2021, the crew was able to work on 24 different conservation properties/complexes within the Kootenay region. On these properties, over two hectares of invasive plants were mechanically treated, 100+ conservation related signs were installed, 100+ slash piles were burnt, 25km of fenceline was inspected/repaired, 560m of old hazardous fencing was removed, 11 wildlife exclosure blocks were repaired and four access gates were installed. The crew also enhanced four wetland sites, monitored five photo plot sites, installed/monitored eight wildlife cameras, and assessed one property for biocontrol presence.

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

#### **Redfish Creek Conservation Property (NTBC)**

- 1. The crew conducted a danger tree assessment along the walking trails. Three trees were removed by a certified faller.
- 2. Invasive plant removal from parking areas (0.2ha) and other vector sites was completed
- 3. Two conservation complex boundary signage were installed
- 4. Three unauthorized structures were removed.
- 5. The crew visited the site during the Kokanee spawning season to document use, which was especially valuable to crew members who have not seen spawning Kokanee before.

#### Marsden Face (NTBC)

- 1. A property inspection was conducted.
- 2. Litter was collected from several parts of the property.
- 3. Illegal camping sites were investigated and reported to the Natural Resource Officers.
- 4. Two game cameras were installed and monitored in the higher elevation sections of the property to gain insight into ungulate use in the recently enhanced areas.
- 5. 14 Wildlife trees were identified and signed along the main road to discourage fire-wooding

#### Rixen Creek (NTBC)

- 1. Crews took part in the "start-up" activities for this property, as it was acquired in late 2020.
- 2. A 4x4 kiosk and signage was installed
- 3. Approximately 20 boundary signs were installed
- 4. Entry and address signage was installed
- 5. Access trail was brushed and large logs were bucked/removed.

- 6. Old outbuildings and cabins had access blocked off with plywood, and were signed as dangerous for liability reasons.
- 7. Two game cameras were installed/monitored on the property.
- 8. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### Shore Acres Beach (NTBC)

- 1. A property inspection was conducted, including a danger tree assessment.
- 2. Invasive plant infestations were investigated, recorded, and mapped. Information was entered into the Collector App, and into IAPP.
- 3. Spotted Knapweed (~0.1ha) and Rush Skeletonweed (~0.01ha) infestations were mechanically treated.
- 4. Litter was collected from several parts of the property.
- 5. A 4x6 signage kiosk was repaired
- 6. A 50m rail fence and gate were installed on the property to eliminate motorized access to the beach.
- 7. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### **Bummers Flats/Cherry Creek Conservation Complex (NTBC & FLNRORD)**

- 1. Infestations of Spotted Knapweed along Pesticide Free Zones (~0.5ha) were hand pulled and bagged. Common burdock infestations (~0.5ha) were slashed with brush saws and pruning shears, bagged and disposed of at transfer station.
- 2. Canada thistle infestations (0.5ha), resulting from recent wetland work, were brush-sawed twice to reduce the amount of seed production
- 3. A conveyor belting initiative for a Spotted knapweed infestation in a Pesticide Free Zone was implemented in 2020. This area was assessed for effectiveness in 2021. Results showed stunted growth directly underneath the matting, but edge areas showed no reduction.
- 4. Repaired exclusion fencing around wetland planting blocks (five total) adjacent to recently restored wetlands.
- 5. Re-seeded disturbed area around the 2020 replacement bridge replacement site.
- 6. Removed approximately 200m of old hazardous fencing from wetland area in mid-bummers flats
- 7. Repaired an MVCA access gate on mid-bummers flats
- 8. Assisted with seed collection and seeding for the Bummer Flats Pollinator Meadow Restoration Project
- 9. Installed/monitored game cameras around the George's pond enhancement site.
- 10. Assessed/repaired approximately five kilometers of fencing
- 11. Laid out blocks for thinning implementation, scheduled for winter of 2022.
- 12. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### The Big Ranch Conservation Complex (NTBC)

- 1. Existing elk proof exclosure fencing around seven aspen restoration sites was inspected and repaired as required. This required replacing 51 wooden posts with 10' metal t-posts, as wooden posts are starting to rot at the base.
- 2. Photo monitoring plots/ growth plots within aspen enclosures were assessed.
- 3. Trimmed grass around public information kiosks and parking areas at property entrance.
- 4. Exclosure fencing around riparian vegetation were repaired and competing grasses were removed.

- 5. Boundary fence lines were assessed/repaired as required (approximately five km). Included fixing five breaks and installing six news posts.
- 6. A trail camera was installed/monitored in forest enhancement sites to monitor wildlife use.

#### **Hoodoos Conservation Property (NTBC)**

- 1. Shrubs and grasses around the information kiosk sites and parking lot areas were trimmed.
- 2. Litter pick-up around two main parking lots
- 3. Extensive fence repair is conducted annually in the North East corner of the property (~2.6km) where unauthorized motor vehicle access in an ongoing issue.
- 4. 300m of rail fencing around parking areas was repaired and re-stained. This included installing 15 new posts.
- 5. Access management signage related to seasonal road closures was installed in areas where trespass has been an issue.
- 6. Trail markers were installed along a high-use trail (wetland viewpoint trail) to concentrate impact and minimize damage to the adjacent grasslands
- 7. Old boundary signage was replaced with newly braded NTBC signage.
- 8. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### **Lardeau - Duncan Flats Conservation Complex (NTBC)**

- 1. Mechanically removed thistle (Canada and Bull) seed heads at lot 570 and 881 (~0.7ha) through brushsawing. This work was completing in coordination with the FWCP section staff.
- 2. Hand thinned 0.25ha of forest around homesteads on the Von Unruh property, to reduce wildlife risk.
- 3. Property infrastructure and habitat features with inventoried into NTBC Field Maps application
- 4. Two heavy duty steel access gates were installed on DL 881 to eliminate motorized trespass through the property. This was completed with a hired excavator/operator.
- 5. Access locks were updated to Combo locks to allow for easier access to conservation partners in this area.
- 6. Repair of 600m of barbed wired fencing was completed on the south end of the Von Unruh property, to restrict horse access from the adjacent property.

#### **Sheep Mountain Conservation Property Complex (NTBC/FLNRORD)**

- 1. Assessment/repaired approximately five kilometers of fenceline.
- 2. Removed old posts and took to RDEK landfill (Two trailer loads)
- 3. Property infrastructure and habitat features with inventoried into NTBC Field Maps application
- 4. Installed six property complex boundary signs.

# Bull River Conservation Complex (Lower Norbury, Armstrong, Bull River Grassland Corridor (BRGC), Red Barn – NTBC and FLNRORD)

- 1. Inspections and repairs on the property boundary fences were conducted (~3km).
- 2. Two game cameras were monitored to assess sheep and ungulate use in recently restored areas (sightline thinning).
- 3. An old garage was removed by a contractor, and crew helped to clean up the site following removal.
- 4. Five bluebird boxes were cleaned

- 5. Cleared tree debris from danger tree assessment/falling. Piled all combustible material in a burn pile for the winter.
- 6. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### Wasa Slough Conservation Complex (NTBC and FLNRORD)

- 1. Satellite Spotted knapweed infestations (0.01ha) were hand-pulled and conveyor belted trial sections were assessed.
- 2. Rail fencing was installed along a levee to restrict livestock access from the west shore Cameron pond, private land, and the highway.
- 3. The right-of-way (1km) was cleared in preparation for a fencing contract in the spring of 2022. This fence will completely eliminate cattle trespass from the parcel.
- 4. Property infrastructure and habitat features with inventoried into NTBC Field Maps application

#### **Kidd Creek Conservation Property (NTBC)**

- 1. Trash was removed from this property over three days by the crew. The 16ft NTBC trailer was loaded three times to take trash to the regional landfill.
- 2. A heavy duty steel access gate was installed and locked to eliminate dumping and camping on the site.
- 3. Property infrastructure and habitat features with inventoried into NTBC Field Maps application
- 4. Five property boundary signs were installed

#### Wigwam Flats Conservation Complex (NTBC/ FLNRORD)

- 1. Re-seeded of bare ground areas with a native seed mix.
- 2. Installed/monitored a trail camera in a potential ER thinning site.
- 3. Removal of old metal and wire from the property (truck load)

#### Wycliffe Wildlife Corridor Conservation Complex (NTBC/ FLNRORD)

- 1. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app.
- 2. Disturbed areas related to fencing contracts were re-seeded with a native seed blend
- 3. Access roads required for property maintenance were brushed/cleared by the crew (1km)
- 4. Approximately 100 slash piles were burned in the fall/winter by the Field Operations Technician. These piles were left over from ER contracts completed by the previous land owner.
- 5. Approximately 10 NTBC boundary signs were installed.
- 6. A game camera was installed/monitored to document wildlife use associated with the newly built fenceline

#### **Carroll Creek Conservation Property (NTBC)**

- 1. Boundary fence lines repaired to protect from cattle trespass (2km).
- 2. Access roads required for property maintenance or emergency access were brushed/cleared
- 3. Beaver activity and impact on water flow was assessed
- 4. Signage was designed related to property specific issues.
- 5. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### **Columbia Lake Eastside Conservation Complex (NTBC)**

- 1. Property was assessed for future management priorities
- 2. Burn permit for water tower was applied for
- 3. Growth measurement, assessment and mapping of previously planted Limber pine seedlings (40 seedlings)

#### **Columbia Lake Westside Conservation Complex (NTBC)**

- 1. Boundary fenceline assessment/repair (5km) in the North East corner and cattle guard.
- 2. Installed/monitored a trail camera on a wetland enhancement site.
- 3. Crew assisted contractor in a wetland enhancement project around Sun Creek. This included coordination with FLNRORD, First Nations, etc.
- 4. "No Camping" signage was replaced around Spur Lake, where signage has been ripped down.
- 5. Road networks continue to be inventoried, to help build a picture for an access management plan down the road at this property.

#### Gold Creek Game Reserve (Strauss Road) Conservation Property (NTBC)

- 1. Boundary fencelines were inspected/repaired (2km).
- 2. Five property boundary signs were installed along boundaries where new Crown land logging has led to new motorized vehicle access.
- 3. Two game cameras were installed/monitored in sites planned for ER work.
- 4. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### **Grand Forks / Gilpin Conservation Property (NTBC)**

- 1. Wetland range exclosure fencing was assessed and repaired.
- 2. Recently planted trees were assessed for survival, and browse protectors were re-installed around many.
- 3. Invasive plant inventory was conducted adjacent to the two main access roads.
- 4. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### Slocan Lake Conservation Property (NTBC)

- 1. 200m of page wire fencing was removed from property boundary alongside the Galena Rail Trail
- 2. A game camera on site was monitored to assess wildlife and public use.
- 3. Five property boundary signs were installed along the Galena Rail Trail.
- 4. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### Waldie Island (NTBC)

- 1. The hounds-tongue infestation was mapped to ensure size is sufficient for bio-control release.
- 2. Four property boundary signs were updated.
- 3. A 4'x4' informational kiosk was removed from the site, after concern it was attracting public to the site, which is a wildlife sanctuary, where public access is prohibited.

#### Columbia River Wetlands - Edgewater (NTBC)

1. The crew assisted with the creation of 20 wildlife trees on the property, through mechanical

- alterations, and inoculations.
- 2. 30 meters of old wire fencing was removed from the forest near the parking area
- 3. Rail fencing around the parking lot was re-stained (60m)
- 4. Assessed/repaired 0.5km of fenceline along the eastern boundary where cattle had entered the property.
- 5. A danger tree assessment/removal was completed, and buck, limbed and removed eight trees that were fallen by a certified professional.
- 6. Two wildlife cameras were monitored in cooperation with The Lake Windermere District Rod and Gun Club. Focus was on recently installed badger culverts and heavily used game trails.
- 7. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app
- 8. The crew assisted with a volunteer bird box installation event with the Lake Windermere Rod and Gun Club

#### **Columbia River Wetlands - Habart (NTBC)**

- 1. Installations of boundary signage (there were no signs on this property until 2021)
- 2. Mapping of spotted knapweed infestations
- 3. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### **Columbia River Wetlands - Castledale (NTBC)**

- 1. Installations of boundary signage (there were no signs on this property until 2021)
- 2. Mapping of spotted knapweed infestations
- 3. Property infrastructure and habitat features were inventoried on NTBC's Field Maps app

#### Training & Professional Development

The 2021 Conservation Land Operation and Maintenance Program was designed, in part, to provide crew members with the training and certifications required to work safely. Professional development opportunities also allow for the crew to be exposed to a variety of conservation disciplines, with the intent of cultivating interest and potentially increasing their employability within the environmental sector. Due to the COVID-19 pandemic, training opportunities were limited.

Training and professional development in 2021 included;

#### **TRAINING**

#### Workplace Hazardous Materials information System (WHMIS):

• The course was completed online through Worsksitesaftey.com. A special focus was on materials commonly carried by field crews.

#### **Defensive Driver Training**

This was an online course put on through Worksitesafety.com. This course provided crew
members 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 to crew members 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.

#### Invasive Plant Identification and Management.

 This course was put on by the East Kootenay Invasive Species Council, as a half online, half field based event. The course focused on regionally noxious and important species of concern, and followed up with identification in the field.

#### Occupation First Aid - Level 1

 This course was put on by Strategic Fire Control and Training in Cranbrook BC. The course provided basic first aid knowledge to all field staff

#### S100/185 Fire Suppression and Fire Behavior

This course was put on by Strategic Fire Control and Training in Cranbrook BC. The course
provided crew members with fire suppression knowledge, and identified the fire suppression
equipment required to be with field crews. The crews had hands-on practice with water pumps,
hoses, hand tools, etc.

#### **Basic Chainsaw Operation and Maintenance**

This course was put on by Timberwolf Training and Consulting. This was a two day course that
provided crew members with the experience required to safety operate chainsaws within
WorkSafeBC guidelines. Field training took place on NTBC's Bull River Grassland Corridor
property

#### 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 field work. This overview includes, but is not limited to the
  following:
  - COVID-19 health and safety protocols
  - Vehicle safety checks
  - Tailgate Safety Meetings
  - Check-in Procedures (SafeteyLine)
  - Missed check-in protocols and responsibilities
  - InReach device overview
  - Risk/hazard assessment guidelines
  - Backroad vehicle and ATV operation
  - Safe handling and use of power tools
  - PPE requirements
  - VHF radio use and procedures
  - o Etc...

#### PROFESSIONAL DEVELOPMENT

#### **Volunteer Work Events**

• The crew assisted with two volunteer work events this summer. One was installing bird boxes with the Lake Windermere Rod and Gun Club at the Edgewater Conservation Property, and the

other was working with KinSeed Ecologies to re-vegetate and pollinator meadow on the Bummers Flats Conservation Property

#### **FLNRORD Wildlife Work**

• Two of the Crew Supervisors went on to work for FLNRORD under contract in the winter of 2021/2022, assisting on Whitetail deer and Cougar monitoring studies. This has been a great partnership, which has led to retention of valuable staff in region.

#### **Recommendations:**

While the 2021 field season was a successful one for the CYC, there are always things that can be improved upon. The extension of field staff into the fall/winter was new for the program, and brought with it some lessons that could make this design more efficient in the future.

- A) Continue supplying the crew with Wilderness First Aid, s100/185, and Chainsaw training.
- B) It is recommended that the Field Operations Technician get certified as a Pesticide Applicator, in order to chemically treat smaller invasive plant infestations, and potentially supervise crew members with Assistant pesticide applicators certification.
- C) Consider purchasing a snowmobile for winter field work. Field staff were restricted in what they could accomplish this winter due to snow conditions.
- D) Consider purchasing an unregulated drone (<250g) to allow for inspections, photo plots, aerial imagery etc. in areas that restrict regulated drone operations (i.e. proximity to airports).
- E) Continue to integrate the crew with FLNRORD staff and their projects, as the crew had highlighted that as one of the best parts of their employment.
- F) Continue to visit the West Kootenays 2-3 times annually to ensure there is an NTBC presence on these sites.
- G) Continue to upgrade some of the tools and supplies to help to efficiently and safely deliver our work plan.
- 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 properties.
- I) Integration of more wildlife focused projects (i.e. game camera monitoring) was recommended by the crew again this season.

# Acknowledgements:

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NTBC also wishes to acknowledge the other funders for the 2021 Conservation Youth Crew in the Kootenay Region. They include: the Conservation Economic Stimulus Initiative funding, The BC Wildlife Federation, The Habitat Conservation Trust Foundation, Employment Skills and Development Canada, and Wheaton Precious Metals.

# **Conservation Youth Crew Photos:**



Figure 2: Crew member installing game camera in an ER block – Grave Prairie Figure 3: Crew member identifying a plant around a wetland enhancement site - Hoodoos



Figure 4: Wetland enhancement "walk and talk" discussion to the crew by Chris Bosman - Hoodoos



Figure 5: Removal of old page wire from the Slocan Lake Conservation Property
Figure 6: Crew assistance with the install of an access gate — Duncan Lardeau.



Figure 7: Photo collected from game cameras installed and monitored by the crew in 2021 – Rixen Creek.



Figure 8: Assisting FWCP section staff in control of Yellow Flag Iris: Walter Clough Figure 9: Thistle control around wetland enhancement sites – Duncan Lardeau



Figure 10: Signage replacement – Waldie Island Figure 11: Kiosk removal from Waldie Island



Figure 12: Crew reviewing game camera photos while at campsite during a trip to the West Kootenays



Figure 13: Crew assisting with re- vegetation efforts for a pollinator meadow restoration project – Bummers Flats

Figure 14: Crew assessing erosion issues and fence condition – Duncan Lardeau



Figure 15: Crew working alongside the Lake Windermere Rod and Gun Club during a volunteer bird box installation event - Edgewater



Figure 16: Crew assessing the presence of invasive pumpkinseed fish in George's Pond – Cherry Creek



Figure 17: Crew viewing the kokanee spawning channel after work on a West Kootenay trip—Redfish Creek



Figure 18: Clean-up and access management project at Kidd Creek