

Project ID - TFW #	Project Name	Region	TFW Action	TFW Funding Spent	Final Performance Reporting 2023-2024: Project Achievements - deliverables & outcomes
2324-T4W-105	Access management within Sylix Territory	Thompson Okanagan	9. On-the-ground Action	\$ 40,000.00	A collaborative team gathered baseline information for the Penasq Summit to better understand habitat and ecosystem conditions. This included: field work to assess available roads for future rehabilitation; identifying other ecosystem values that could be incorporated into the work; and creating maps of the chosen area and show the work to be completed. Another aspect of the work was community and elder engagement with our Sylix partners. Elders and knowledge keepers were taken out on the land to share the cultural significance of the area and the related habitats.
2324-T4W-056	Assessing effectiveness of wildlife salvage activities conducted throughout the province under <i>Wildlife Act</i> permits, with a focus on amphibians	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	9. On-the-ground Action	\$ 12,745.51	The ability to remove amphibians and reptiles (herpetofauna) safely and effectively from a work site to protect them from harm is an important skill for environmental professionals. This project was built upon work previously funded by Together for Wildlife (T4W) in 2022/23, where a study design was developed to evaluate the effectiveness of amphibian "salvage" activities. In 2023/24, this study design was implemented, and progress was achieved in several areas. Relevant sections of current guidance (i.e., Best Management Practices for Amphibian and Reptile Salvages in B.C., 2016) and other related government documents were evaluated. Improved guidance for permit applicants was uploaded to the FrontCounter BC website to enhance the quality of future salvage applications. Professionals offering herpetofauna salvage courses were consulted to discuss information and practices to improve training for B.C. biologists: (https://ntraininggroup.com/course-descriptions/amphibian-and-reptile-salvage-methods/). Additionally, guidance to improve animal care applications for salvage projects (one part of the permit requirements for this activity) was updated and uploaded to the FrontCounter BC website.
2324-T4W-055	Assessing the effectiveness of road mortality mitigation structures, with a focus on western painted turtles	Kootenay Boundary	9. On-the-ground Action	\$ 26,300.00	The western painted turtle is the only native freshwater turtle in British Columbia. As part of this project, an assessment was done to determine if mortality mitigation structures were helping to reduce the number of turtles killed while crossing Jaffray Baynes Lake Road. Most of the turtles found dead on the road during our surveys were located between existing turtle crossing signs where a wildlife underpass that allows turtles to travel beneath the roadbed had been installed. This result indicates that the underpass is in the right area to help protect the turtles. It also shows that the general placement of the fencing should provide maximum benefit for turtles trying to move from one side of the road to the other. Although the location is well-suited for these protection measures, turtle mortality continues. This indicates that the temporary fencing was not effective in preventing turtles from crossing the road or directing them to the underpass. Wildlife cameras showed animals using an existing small culvert and the installed larger underpass. There is limited evidence that three turtles interacted with the small culvert, either by approaching it or entering it, but there is no evidence suggesting they travelled all the way through. More substantial evidence shows 15 turtles engaging with the larger underpass. However, in this case as well, none of the captured evidence conclusively showed that the turtles moved all the way through. Some turtles were captured entering and promptly exiting the underpass back through the same entrance, whereas others were captured exiting the underpass with no evidence of them entering the underpass. As part of this project, outreach events were organized to share information, generate interest in the project and encourage future reporting. As well, a provincial meeting about western painted turtles was organized where the project's results were presented and updates were received from other turtle protection projects around the province.
2324-T4W-057	B.C. Feral Pig Strategy support	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	4. Data and Information	\$ 62,459.04	Invasive species are a threat to wildlife and wildlife habitats, and feral pigs are among the world's most harmful invasive species. They prey on and compete with native wildlife, spread disease, destroy crops, eat small livestock, and pose a risk to public safety. To help address these threats, the B.C. Feral Pig Working Group was formed in 2023. This project supports the group's goals, including the creation of a B.C. Feral Pig Strategy and a B.C. Feral Pig Early Detection and Rapid Response Plan. The project also supported transboundary collaborations, since B.C. government representatives sit on several feral pig working groups at the national and international level that focus on coordination, monitoring, and implementation of response efforts across borders. Featured activities enabled by this project included: 1. Hiring of an auxiliary biologist to assist with coordination and creation of a draft B.C. Feral Pig Strategy and B.C. Feral Pig Early Detection and Rapid Response Plan; 2. Hiring of a professional contractor to respond to sightings and trap feral pigs; 3. Planning of cross-border feral pig response exercises and events, including a Pacific Northwest Cross-Border Tabletop Exercise involving British Columbia, Washington and federal partners in October 2023 and a Feral Swine Summit at the Pacific Northwest Economic Region Summit in July 2023.
2324-T4W-061	BC Telemetry Data Warehouse (BCTW)	Ministry of Water, Land and Resource Stewardship - Natural Resource Information and Digital Services (NRIDS)	7. Data Accessibility	\$ 85,000.00	The Integrated Data and Analysis Branch is continuing multi-year systems development work to modernize legacy provincial wildlife databases and improve data access. This work will help ensure that wildlife and habitat data are reliable and accessible to everyone and that datasets are consolidated at the provincial scale. In 2023-24, system development advanced to a point where newly developed system functionality could be integrated within the new Species Inventory Management System to consolidate species observations with telemetry, captures, mortalities, and wildlife survey and project metadata. This was enabled by the development of "Criterbase," a database module that allows the Species Inventory Management System to integrate information about individual animals. With the Criterbase module in place, the BC Telemetry Warehouse could be incorporated into the Species Inventory Management System allowing wildlife telemetry data to be automatically collected and visualized in real time alongside species observations. It also allows users to upload wildlife capture and mortality data; and, in future, share that information with wildlife health biologists to facilitate the visualization of an individual animals' health results alongside its movements.
2324-T4W-010	Big Creek Moose Research Project	Cariboo	4. Data and Information	\$ 27,424.30	Together for Wildlife funding supported aerial-based mortality investigations of GPS-collared moose in the Big Creek area in the Chilcotin. Rapid mortality investigations allowed for biological sampling and determination of causes of death. A recruitment survey of collared moose was also completed in 2024. Information from the survey builds on the long-term monitoring of calf recruitment (i.e., estimating how many moose calves survive to one year old) for the South Chilcotin moose population, and it supported moose harvest management decisions for the 2024 hunting season.
2324-T4W-013	Boundary cougar inventory	Thompson Okanagan	4. Data and Information	\$ 4,610.51	Work continued to build an Integrated Population Model for cougars in the Boundary region. In 2023-24, a parentage analysis was conducted across a dataset of 70 individual cougars from DNA samples that were previously genotyped. These data will inform population structure and demography profiles for a population that was inventoried in 2021. The Integrated Population Model will be used to monitor the size and trend of this population and will also inform harvest management to ensure sustainability.
2324-T4W-068	Building resilience of Interior Douglas fir Ecosystems (Alkali Resource Management Ltd.)	Cariboo	9. On-the-ground Action	\$ 30,808.69	This multi-year project is a collaboration between provincial government ministries and Alkali Resource Management Ltd., which is owned by the Esk'etemc First Nation. In 2023-24, pre-treatment data collection continued, focused on plots along established transect lines (i.e., lines following routes along which a survey is conducted or observations are made) to collect vegetation data. This data would then be compared against post-treatment data to assess changes in species diversity. Camera traps were also established to collect wildlife use of the treatment units during the winter before the treatments are completed in 2025, to compare that information to the post-treatment data and observe changes in wildlife use and diversity in those areas. The intent of this project is to improve how harvesting in Interior areas dominated by Douglas fir trees is done, based on a balanced perspective of ecosystem resiliency, wildlife use of these areas, culturally important vegetation species, and wildfire risk reduction.
2324-T4W-009	Cariboo Region mountain goat and sheep surveys	Cariboo	4. Data and Information	\$ 84,576.64	The Pantheon mountain goat Population Management Unit (PMU), located in the Pantheon Mountain Range) was inventoried in July 2023. The results provided population estimates and kid-to-adult ratios for the Pantheon PMU. The inventory results informed the development of hunting regulations to ensure that the licensed harvest of mountain goats for the General Open Season in South Chilcotin Mountains (in the Pantheon PMU) is sustainable.
2324-T4W-083	Collaborative wildlife and habitat stewardship and First Nations engagement on Vancouver Island	West Coast	9. On-the-ground Action	\$ 59,057.32	Conflicts with elk along the Highway 18 corridor between Duncan and Lake Cowichan are significant. As part of a multi-year effort, existing elk movement data along this highway corridor were analyzed to better understand whether the existing data can inform mitigation measures, or if additional information is required. Ministry staff combined this work with survey data to determine where elk are observed close to highways and thus pose a potential risk of elk-vehicle collisions. The elk population in the Nahmint Valley remains low and is not growing as expected. Working collaboratively with the Ucluelet First Nation and the Uchucklesaht Tribe, the team strategically deployed cameras across the Nahmint Valley to better understand how elk use the area. Review and analysis of the resulting images are ongoing, and another year of data collection is anticipated for 2024-25. Managing elk for sustainable use requires a high level of collaboration with First Nations. The team therefore met with First Nations to share information amongst the groups and solidify a strategy to continue collaborative efforts to maintain sustainable elk harvest opportunities. Additionally, many First Nations communities are asserting management over furbearers. To this end, the ministry team began working with the Council of the Haida Nation to begin a process to collectively update trapline registrations on Haida Gwaii.

2324-T4W-106	Columbia Lake ecological corridor conservation planning	Kootenay Boundary	8. Objective-setting	\$ 29,000.00	This project supported the development of an Ecological Corridor Conservation Plan for the Columbia Lake Corridor. This work was carried out by the Kootenay Connectivity Working Group, coordinated by Kootenay Connect. It is a collaborative approach that includes representatives from organizations that are active in managing public land in the East Kootenay region, including: Parks Canada, the B.C. government, BC Parks, Ktunaxa Nation Council and Shuswap Band. The plan will define conservation values within the corridor, develop beneficial management practices, and set objectives that will guide activities consistent with the conservation of ecological corridors.
2324-T4W-111	Communicating West Coast Region's wildlife and habitat management objectives and approaches	West Coast	3. Public Engagement	\$ 9,947.50	Two new infographics were developed to share information about Ungulate Winter Ranges and Wildlife Management Areas with the public, First Nations, and stakeholders. These resources are important tools to promote the protection and stewardship of wildlife habitat in B.C.
2324-T4W-108	Communication support for regional wildlife monitoring and management update	Omineca	3. Public Engagement	\$ 18,000.00	The goal of this project was to increase access to and visibility of wildlife related work being completed in the Omineca Region. It supported two recent projects: a multi-year assessment of wolf-moose predation dynamics; and demographic monitoring of Southern Omineca moose populations to assess the spike-fork moose general open season for licensed hunting. (A spike-fork bull is any bull moose with no more than two tines on either antler.)
2324-T4W-026	Community Bumble Bee Monitoring Project	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	4. Data and Information	\$ 82,110.24	There are 38 known bumble bee species in British Columbia. Most are wide-ranging, feed on a broad range of wildflowers, and live in a variety of habitats throughout our vast provincial landscape. This project aims to collect quantitative data that can be used to assess the conservation status of all bumble bees in the province. Data collection involves establishing long-term (more than 10 years) bumble bee monitoring routes throughout the province. We are concurrently building a community of trained volunteers who, once per year, would survey one or two of these routes near the areas where they live and work. These survey routes include some of the same routes monitored as part of the North American Breeding Bird Survey program, as well as new routes. The routes extend through all ecozones and habitats. Survey methods are consistent for all survey routes. Data collected over the ten-year assessment period will be used to determine long-term trends in bumble bee distribution and abundance, and used to update conservation status assessments and range maps. In 2023, 75 bumble bee routes were completed (totalling approximately 45 kilometres of transect lines [i.e., lines following routes along which surveys are conducted, or observations are made] throughout the province. Close to 80 volunteers participated in the project. These routes crossed through all regions of the province, including numerous BC Parks and protected areas. Twenty-nine bumble bee species were recorded, and the abundance and distribution data will help with assigning accurate conservation status ranks to these species over a ten-year timeframe.
2324-T4W-066	Conservation Lands habitat protection and enhancement in the Kootenay Boundary Region	Kootenay Boundary	11. Conservation Lands	\$ 128,346.73	In 2023-24, the Ministry of Water, Land and Resource Stewardship (WLR) completed activities across multiple conservation lands in the region to manage and enhance existing conservation lands. Funding was used to leverage additional investments and strengthen relationships with conservation partners to support wildlife objectives. At Wasa Slough, slashing (cutting of small trees) was completed to enhance habitat for elk, white-tailed deer, and mule deer in Ungulate Winter Range and an important wildlife corridor. The habitat restoration prescription included tree thinning, pruning, slashing, piling, and burning. At Earl Ranch, fence repairs were carried out to stop cattle that were grazing nearby from entering the property and impacting sensitive riparian areas around wetland creation and enhancement project sites. Extensive monitoring was completed for Phase 1 and Phase 2 wetland creation projects. At Bummers Flats, the pollinator project (Year 3) was completed to create a diverse plant community to attract a wide range of native pollinators and discourage invasive species. Through seeding, planting and monitoring, pollinator habitat will be enhanced by providing important resources for native pollinators. In 2023-24, WLR also completed site data collection for the Bummers Flats Wetland Creation project, in partnership with 7aq'am, the Nature Trust of B.C., and Ducks Unlimited. At Wigwam Flats, project management was coordinated to support volunteer "slashing day" with local NGOs, which slashed 13 hectares of land to restore Ungulate Winter Range for bighorn sheep, elk, mule deer and white-tailed deer. At Wycliffe Conservation Property, fencing repairs and invasive plant treatments were completed. A prescription was developed to restore healthy ecological conditions to enhance wildlife habitat and biodiversity features, as well as project management to support habitat enhancement activities.
2324-T4W-059	Critterbase data warehouse	Ministry of Water, Land and Resource Stewardship - Natural Resource Information and Digital Services (NRIDS)	7. Data Accessibility	\$ 75,000.00	The Integrated Data and Analysis Services Branch is continuing multi-year systems development work to modernize and replace legacy provincial wildlife databases and access systems. This work will help ensure that wildlife and habitat data are accessible to everyone and are reliable, and that datasets are consolidated at the provincial scale. In 2023-24, multiple fish and wildlife data management tools were streamlined to facilitate the submission of wildlife data, including species observations, telemetry, captures, mortalities, and survey metadata. The ability to upload species observations with attributes (such as life stage and body condition) and environmental data (like temperature and weather) was added to the Species Inventory Management System by integrating with the Critterbase data warehouse. The B.C. Telemetry Warehouse was integrated into the Species Inventory Management System to allow wildlife telemetry data to be automatically collected and visualized in real time alongside species observations. The Integrated Data and Analysis Services Branch also initiated the integration of the Wildlife Health System for data submitters to efficiently send wildlife capture and mortality data to wildlife health biologists and visualize wildlife health results. The Species Inventory Management System was integrated with BiodiversityHub BC, allowing data and information to be shared and the Integrated Data and Analysis Services Branch to more efficiently implement the Species and Ecosystems Data and Information Security Policy. Features were also added that allow other data management tools and software applications, such as analytics dashboards, to integrate with the Species Inventory Management System to incorporate fish and wildlife data.
2324-T4W-018	Deer and elk Ungulate Winter Range (UWR) effectiveness monitoring	West Coast	10. Land Designations	\$ 88,266.00	This project is assessing the effectiveness of Ungulate Winter Ranges (UWRs) for black-tailed deer and Roosevelt elk to determine if areas protected from forestry activities are providing the habitat required for ungulates to survive severe winter conditions like deep, persistent snowpacks. Individual UWRs are being looked at as well as the management and protection of winter habitat at the landscape (e.g. watershed) scale. An ArcGIS Online dashboard has been created to capture and display historic information digitized from hardcopy reports and maps, as well as recent information such as data from habitat models and surveys. Technologies including GPS collars and remote cameras are also being used to observe wildlife and inform habitat and forestry management recommendations. Although assessment protocols are still being refined, this project is informing forestry and habitat management planning for several initiatives on Vancouver Island.
2324-T4W-016	Deer Ungulate Winter Range (UWR) - Sunshine Coast Timber Supply Area (TSA)	South Coast	10. Land Designations	\$ 43,967.00	The objectives of this project were to designate Ungulate Winter Ranges (UWRs) for black-tailed deer throughout the Sunshine Coast Timber Supply Area (TSA). This project was divided into two phases. Phase 1 involved collaborative work with shishalh Nation to establish UWR polygons for black-tailed deer within their traditional territory (swiya), which is within the broader boundary of the Sunshine Coast TSA. Phase 2 involves establishing UWR polygons for black-tailed deer outside the swiya, within the remainder of the Sunshine Coast TSA. For Phase 1, an updated habitat model was used to help guide the location of UWR boundaries, taking into consideration traditional knowledge from shishalh, expert opinions from wildlife biologists, and information from forest licensees and the Timber Harvesting Land Base. To date, 63 candidate UWR polygons have been delineated in the swiya and were sent out for formal consultation with all stakeholders. For Phase 2, an external contractor created a second updated winter habitat model for black-tailed deer to help guide the process outside the swiya. Previously delineated UWR boundaries from 2014 were reviewed against the updated habitat model and new polygons have been delineated. In March 2023, a subset of polygons were refined and reviewed in the field via helicopter. This work improves legislated land decisions by working collaboratively with First Nations and incorporating traditional knowledge into the decision-making framework. This work also establishes a very clear process with stakeholders so that all decisions are transparent and clearly communicated.
2324-T4W-033	Development of Integrated Population Models to support population decisions for B.C. big game species	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	7. Data Accessibility	\$ 43,967.00	This project supported the development of Integrated Population Models (see definition below) for several big game wildlife species. A computer-based platform was created (accessible over the internet) that allows a user to choose a species, time period, and area where they would like the model to estimate the model's parameters, including estimated kill (number of animals of a given species killed during the period), harvest rate, population abundance, and population trend. Currently, this model is being used to track moose and cougars, but it will soon be expanded to include other species. The model integrates wildlife data from a variety of sources, so it can reconcile anomalies where data vary (e.g., when two sets of data are telling different stories or contain conflicting information). Definition: Integrated Population Models use multiple types of data within a single model. They can better use available information on wildlife populations and individual animals to understand wildlife population changes over time.

2324-T4W-067	East Kootenay Wildlife and Habitat Advisory Committee facilitation support	Kootenay Boundary	2. Regional Advisory	\$ 59,810.00	This project provided engagement, communication, and facilitation support for the East Kootenay Wildlife and Habitat Advisory Committee (EK WHAC). The key roles of the EK WHAC is to provide advice to provincial government staff at the regional scale about the implementation of the Together for Wildlife strategy, and to represent a united voice on behalf of wildlife and their habitats in the East Kootenays. Outcomes included support for a communications and facilitation expert to design, deliver and facilitate virtual and in-person meetings of the committee on an ongoing basis. This provided expertise has allowed the committee to focus its efforts on identifying regional priorities and communicating their recommendations to the Province.
2324-T4W-015	Effects of prescribed burning and plains bison grazing in a montane-boreal landscape	Ministry of Forests - Range Branch	4. Data and Information	\$ 17,876.94	This project was designed to inform the management of prescribed burning for ungulate habitat (e.g., habitat used by hoofed animals such as moose, deer, bison, and caribou) in the Muskwa-Kechika Management Area, with a particular focus on plains bison and elk. Detailed plant community information, including species composition and forest stand characteristics, was recorded at long-term monitoring sites (range reference areas) within burned areas of wildlife habitat. To determine the consequences of prescribed burning on ungulate diets, various important plant species were sampled and analyzed for forage qualities. To determine bison and elk diets, manure was sampled and e-DNA analyses were completed. While the project did not partner with First Nations, Treaty 8 First Nations were consulted on the project, and Prophet River First Nation expressed its support for this work.
2324-T4W-005	Elk and deer population monitoring in the Vanderhoof agricultural belt	Omineca	4. Data and Information	\$ 23,749.82	A mid-winter aerial inventory survey in the Vanderhoof agricultural area was conducted to collect minimum total counts and demographic information about wintering populations of elk and deer. This information was used to provide management recommendations for hunting regulation changes, such as winter antlerless elk Limited Entry Hunt opportunities.
2324-T4W-075	Enhancing terrestrial riparian habitat along the Nechako river corridor	Omineca	9. On-the-ground Action	\$ 24,000.00	The purposes of this project were to confirm that large-diameter cottonwood trees along the Nechako River corridor are not surviving and to begin to address this future deficit in habitat supply through targeted planting of locally grown cottonwood seedlings. Twenty thousand trees were planted in a variety of riparian habitat types and their fates monitored to clarify future locations for restoration work. Methods for collecting viable seeds and selecting optimal planting locations are now clarified, with the goal of restoring cottonwood tree stands along the entire length of the river in the coming years.
2324-T4W-021	Evaluating large-scale moose habitat enhancement	Omineca	4. Data and Information	\$ 27,424.30	The purpose of this project was to evaluate the effectiveness of a large-scale ecological restoration and habitat enhancement program. The program was designed to bolster forest diversity while providing a stable supply of forage and winter range for moose. Through a combination of field surveys and remote sensing, it was estimated that the quantity and quality of available forage, the composition of plant communities, and habitat use by ungulates (i.e., hoofed animals such as moose, deer, bison, and caribou) in treated areas compared well with those in untreated forested areas nearby.
2324-T4W-097	First Nations-B.C. Wildlife and Habitat Conservation Forum	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	24. FN Wildlife Forum	\$ 200,000.00	The First Nations-B.C. Wildlife and Habitat Conservation Forum held ongoing meetings with various B.C. government teams working on projects such as the Cumulative Effects Framework, the Biodiversity and Ecosystem Health Framework, and the ongoing Wildlife Act review. The forum worked with these project teams and others to provide strategic advice on First Nations engagement, possible First Nations priorities and, in some cases, co-developed policies and legislative proposals. The forum also worked to advance Goal 5 of the Together for Wildlife strategy by continuing to advance draft policies on shared decision-making and collaborative wildlife, wildlife habitat and stewardship planning. The forum also collaborates with organizations such as the Minister's Wildlife Advisory Council and the Provincial Hunting and Trapping Advisory Team to align wildlife priorities amongst these groups.
2324-T4W-027	Fisher landscape planning	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	4. Data and Information	\$ 100,810.60	This project aimed to provide land and resource managers with decision support tools to help them better understand how fisher populations respond to projected landscape changes. The "Fisher Landscape Explorer" (aka FLEX) tool combined an Individual-Based Model (that simulated the actions of individual fishers in response to their environment) with a dynamic landscape (i.e., changing fisher habitat) created using the "spatially-explicit discrete event simulation" (SpaDES) framework. FLEX identifies priority areas for fisher populations over time. During the past year, the model was improved using field data (both from camera traps and GPS collars) to better simulate fisher population dynamics. There was a soft launch of the tool with two Forest Landscape Plan pilot projects and introduced the tool to project teams. The plan for this year is to work closely with these pilot projects and collaboratively run forest harvesting scenarios through the tool, to help predict where and how many fisher territories are likely to occur over the next few decades, based on different scenarios. Over the coming years, the intention is to integrate the Fisher Landscape Explorer tool with other Forest Landscape Plan projects and work with regional staff to provide decision support for on-the-ground, landscape-scale management decisions.
2324-T4W-073	François Lake bear population action plan	Skeena	8. Objective-setting	\$ 50,139.03	The wildlife subcommittee of the Skeena Sustainability Assessment Forum (SSAF) worked on a pilot project to build community-based capacity to set stewardship objectives related to bears. This included community outreach through social media and engaging with Band Councils so they would become points of contact on bear issues in the community and surrounding areas. This work also included reaching out to the B.C. government's Conservation Officer Service (COS) so it would become the point of contact for their community, documenting bear sightings and bear-human conflict issues using a consistent method, as well as mapping bear attractants within and around communities. Efforts were also made to address bear attractants such as fruit by organizing apple and berry picking days. The pilot project culminated in a successful two-day workshop bringing together participating SSAF Nations, the Kitsoo Xa'xais Nation, COS, Northern Lights Wildlife Shelter, Making Agriculture Sustainable in the Hazeltons, and Nature Serve to form a working group to reduce bear-related problems in communities. The group started developing high-level Best Management Practices for wildlife coexistence that address topics such as composting and community engagement.
2324-T4W-049	Fraser River bighorn sheep disease mitigation program	Thompson Okanagan	9. On-the-ground Action	\$ 43,967.00	This continuing project seeks to mitigate Mycoplasma ovipneumoniae (M.ov) infections in Fraser River bighorn sheep to improve lamb survival and ultimately increase the bighorn sheep population. Approximately 80 bighorn sheep were captured and tested for M.ov infection across five different bands of sheep. Treatments were implemented that consisted of euthanizing infected sheep so that they were not able to transmit the disease, particularly to lambs which are more sensitive. Data from this project indicate average improvements in lamb survival through the summer to be 260% in treated areas relative to untreated areas. The estimated population rate of change in treated areas is greater than one (indicating a population increase), and less than one (indicating a population decrease) in untreated areas.
2324-T4W-041	Fraser River bighorn sheep: post-treatment herd planning and engagement	Cariboo	8. Objective-setting	\$ 27,424.30	Since 2019, a disease mitigation program along the Fraser River has been helping to protect bighorn sheep from Mycoplasma ovipneumoniae (M.ov), a deadly respiratory disease. Through a "test and remove" approach, infected sheep are removed from a herd to help the population recover. To help gather feedback on the program, an expert consultant coordinated and facilitated five engagement workshops with First Nations. The feedback and information gathered from the workshops were incorporated into a document entitled "Fraser River Bighorn Sheep Disease Assessment and Recovery: Post Test-and-Remove Treatment Management Planning". This document will serve to guide recovery actions in the future, following treatment of the Fraser River bighorn sheep populations.
2324-T4W-036	Genetic analysis of California bighorn sheep in British Columbia: a tool to inform future recovery and conservation of sub-populations	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	9. On-the-ground Action	\$ 14,425.00	This project is a partnership between the B.C. government, Tsih'qot'in First Nation and the University of Alberta. It uses analyses of DNA samples of bighorn sheep to provide a snapshot of individual genetic diversity and herd assignments. The goal is to provide a picture of which bighorn sheep herds are related to each other within the sub-populations that extend east from the Taseko/Relay/Tsilos/Nemiah mountain ranges, along the Fraser and Thompson Rivers, to the east of Kamloops. The purpose is to understand where herds are connected and where herds are very separate, in order to inform translocation projects to augment herd populations. This project is a key step in developing a better understanding of herd genetic profiles, to be used in creating an action plan to restore the Fraser River metapopulation and the Tsih'qot'in herds of bighorn sheep. These herds are imperiled as a result of being devastated by domestic sheep respiratory illness, which has led to catastrophic all-age die-offs and, in some cases, extirpations (i.e., local extinctions). Some herds have been reduced to just several individuals and correspondingly, there has been a loss of cultural and traditional harvest opportunity for many First Nation communities along the Fraser River.
2324-T4W-029	Great Blue Heron investigation of genetics and ecological differences between coastal and interior populations	Ministry of Water, Land and Resource Stewardship - Terrestrial Species Recovery Branch	4. Data and Information	\$ 12,000.00	A report and project proposal were developed that compiled existing information on the population genetics of great blue herons in B.C. The contractor developed a study design on heron genomics that will be completed over the next four years. The study design outlines the number and locations of samples that need to be collected, as well as the methodology and expected budget needed to complete a robust genomics assessment of great blue herons in B.C. This work will support informed conservation decisions, including the potential for the B.C. government to develop its own management units for this species.

2324-T4W-046	Grizzly bear conflict reduction	Kootenay Boundary	9. On-the-ground Action	\$ 35,735.36	Funds were used to build an electric fence around a dairy farm in Creston that had been experiencing high rates of grizzly bear conflict for years
2324-T4W-038	Grizzly bears: provincial recovery of threatened populations - Southwest	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	8. Objective-setting	\$ 86,592.00	Public and First Nations input on the provincial Grizzly Bear Stewardship Framework was incorporated into a final draft which was shared with B.C. government executives. Recovery plans for both the Stein and North Cascades grizzly population units are in draft form, and the development of both plans was led by First Nations partners. Discussions are continuing with many First Nations in the province about how to implement stewardship options for grizzly bear populations.
2324-T4W-047	Highway 3 vehicle-wildlife collision mitigation – "Reconnecting the Rockies"	Kootenay Boundary	9. On-the-ground Action	\$ 30,572.50	This project helped further mitigate wildlife-vehicle collisions on Highway 3 with the installation of two ungulate guards at important roads off the highway, which is a critical step to allow fencing and underpass work to continue. Funding was also used for the effectiveness monitoring portion of the project, which included data classification and summarization. (Ungulates are hoofed animals such as moose, deer, bison, and caribou.)
2324-T4W-076	Historic ungulate habitat data capture	West Coast	7. Data Accessibility	\$ 21,079.00	Existing hard copy reports and maps related to ungulate habitat were scanned and digitized to inform Ungulate Winter Range (UWR) effectiveness monitoring and the ongoing management of UWRs with respect to amendments and exemptions. The digitized resources also helped ministry staff respond to First Nations and stakeholder inquiries and Land Act tenure referrals (e.g., adventure tourism).
2324-T4W-035	Hunter survey revitalization project	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	7. Data Accessibility	\$ 100,000.00	This project initiated a change to the Hunting Regulation that would introduce mandatory requirements for licensed resident hunters to report on their hunting activities for moose and caribou. Historically, this information has been collected through voluntary surveys sent to licensed hunters. Making the submission of this information mandatory will increase the amount of data available for wildlife managers to estimate hunter activities and thereby improve the precision of these estimates. These changes will improve the ministry's ability to track wildlife populations over time and increase certainty related to important data sources. This project also began the process of transitioning the current volunteer hunter survey into the online licensing system, which will improve the quality of information collected from hunters. It will also provide opportunities to integrate the proposed mandatory reporting requirements for moose and caribou hunters into the survey system. This change will allow the ministry to expand mandatory hunter reporting requirements to additional species if such a change is desired in the future.
2324-T4W-079	Implementing bear den management in the West Coast Region	West Coast	4. Data and Information	\$ 53,500.00	In 2023-24, this project completed the fourth year of data collection work. Field crews on Vancouver Island and Haida Gwaii visited over 125 bear dens to collect data on den use, and on forest harvesting and road construction activity near bear dens. Hair samples were also collected for genetic analysis, and over 40 remote wildlife cameras were set up around some of these bear dens. Collaboration with the Council of the Haida Nation (CHN) continued on Haida Gwaii, with many of the den visits there completed by CHN members. New methods were tested in the field, including ways to assess bear dens with arboreal (above ground) entrances and installing non-invasive hair snares to procure better genetic samples. Five bear den identification workshops or information sharing sessions were run by B.C. government staff or a consultant, with the intent of increasing fieldwork expertise to identify more dens so they can be better managed and protected. A winter den check protocol was finalized in collaboration with CHN, and a Vancouver Island version was drafted and provided to some forest licensees for their review.
2324-T4W-080	Important bird nest monitoring on Vancouver Island	West Coast	9. On-the-ground Action	\$ 35,000.00	The ministry's West Coast Region Ecosystems team worked with the Community Mapping Network and volunteer bird nest stewards between Campbell River and Victoria on Vancouver Island to survey and monitor bald eagle and great blue heron nests. Throughout the breeding season, the stewards visited nests to assess their status and activity levels and collected data using a new mobile data entry application. Provincial ecosystems biologists were involved in outreach, training, and education on the use of the app to facilitate improved data collection methods and updated datasets on nest locations and activity. These nest data are available to be used by municipal planners and developers to avoid disturbing nests and support conservation planning. The West Coast Region Ecosystems team also planned and hosted a training and information sharing session about great blue heron colony monitoring in March 2024 in Beacon Hill Park, Victoria. It was attended by City of Victoria Parks Operations staff and local heron nest stewards. These on-the-ground stewardship projects all contribute to improved management and protection of important bird nests on Vancouver Island.
2324-T4W-017	Improving accuracy of Roosevelt elk inventory via modeling of sightability	South Coast	6. Citizen Science	\$ 41,147.18	In the third year of this project, the modelling technique tested in previous years was successfully applied to elk aerial survey data from 2023 to produce accurate estimates of Roosevelt elk population sizes throughout the South Coast region. This model replaces a subjective estimation and helps standardize the population estimation process. A user-friendly Shiny app was developed to streamline the modelling process for provincial biologists. The app was showcased to various potential user groups, including harvest allocation decision-makers, senior biologists, and Together for Wildlife staff. Efforts to incorporate the model estimates into the Roosevelt elk Stewardship Baseline Objectives Tool (SBOT) were initiated. Simultaneously, a two-year wildlife camera survey on the Sechelt Peninsula was concluded: the deployed cameras were collected, images were processed, and data analyses were carried out successfully. The findings from both the aerial and camera surveys were compiled into two reports to be made publicly available. This project improved biologists' understanding of Roosevelt elk populations in the South Coast region and will inform responsible decision-making. Robust population estimates are crucial to assessing population status and trends, setting hunting harvest allocations, and integrating science-based estimates with First Nations knowledge to support shared decision-making. The exploration of innovative wildlife monitoring methods, such as camera trap distance sampling, revealed opportunities for expanding these techniques to other species and locations. The findings of this project have the potential to advance wildlife knowledge throughout B.C., as well as enhance the Province's ability to support thriving, resilient wildlife populations for years to come.
2324-T4W-077	Improving management of Conservation Lands in the West Coast Region	West Coast	11. Conservation Lands	\$ 35,000.00	As part of an overall commitment to administer the Conservation Lands program, B.C. government biologists continue to work with partner agencies, namely the Nature Trust of B.C. and Ducks Unlimited, to update management plans for existing Wildlife Management Areas (WMAs) and create new conservation lands that will contribute to the provincial goal of protecting 30% of the land base by 2030. Over the past year, the focus was on finalizing an updated Management Direction Statement for Lazo Marsh near Comox that will help guide future management activities on the site. As well, work was carried out with the Mowachaht/Muchalaht First Nation on the west coast of Vancouver Island to explore the creation of a new WMA in the territory. The goals of the designation would be to recover salmon populations and protect old growth forest. A relationship was established with Cowichan Tribes to advance their vision for protecting and enhancing culturally sensitive features in the S'amunu WMA (YeYumnuts Project). This on-the-ground stewardship resulted in the installation of fencing, signage, and educational infrastructure in the form of an outdoor classroom pavilion for use by local school groups.
2324-T4W-012	Improving mule deer habitat stewardship in southern B.C.	Thompson Okanagan	4. Data and Information	\$ 93,000.00	From 2018 to 2022, global positioning system (GPS) collars were placed on 201 adult female mule deer, 270 fawns, and 134 neonates (newborn deer) in the Thompson Okanagan region. Tracking the deer using their collars showed that during spring migration, deer did not time their movements to match the pace of forage green-up, likely because green-up did not occur in a way that was conducive for deer to track. Potentially, timber harvesting has created a mosaic of early and late green-up patches, affecting the order and timing of green-up. Additionally, mortality risk was found to increase in the winter when deer used areas with higher road densities and deeper snow. Deer that used recently burned areas and cutblocks had a reduced mortality risk in the summer compared to those that used these areas less often. Additional findings are discussed at length in Dr. Chloe Wright's PhD dissertation (https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0441418) and will be used to help guide future habitat enhancement and risk mitigation measures.
2324-T4W-043	Increasing data accessibility related to mountain goats and their habitat in the Cariboo Region	Cariboo	7. Data Accessibility	\$ 40,474.00	The Cariboo Region Mountain Goat Stewardship Baseline Objective Tool was created to bring together mountain goat data (population, habitat, legal designations, and other goat-related information) from several sources into a single map-based application. This tool allows staff to access all relevant mountain goat data in one place, ensuring that they can make informed decisions about land-based authorizations in mountain goat habitat.

2324-T4W-094	Kootenay Bighorn Sheep health monitoring	Kootenay Boundary	9. On-the-ground Action	\$	32,908.87	From February 2021 to January 2024, 32 complete or partial bighorn sheep carcasses were necropsied. Twenty-two of the sheep were from the Radium-Stoddart herd, eight were from the Elk Valley East herd, one was from the Elk Valley West herd, and one was from the Lizard Creek herd. Entire kidneys (23), and portions of liver (29 samples) and skeletal muscle (20 samples) were collected for contaminant analysis. A range of other tissues were archived, either frozen or fixed in buffered 10% formalin, a preservative. Sheep age was approximated using horn growth patterns. Cause and date of death, carcass location and condition, pregnancy status, and body condition were also recorded. A summary report of the work was produced.
2324-T4W-064	Kootenay Region ecosystem restoration strategic planning	Kootenay Boundary	8. Objective-setting	\$	49,500.00	This project supported the development of an Ecosystem Restoration Plan in a multi-use priority area that supports natural resource values. The plan identified priority values such as species at risk, along with objectives for these values in the context of ecosystem function and ungulate (elk, mule deer, and white-tailed deer) habitat health. The plan provides clear objectives that will allow ecosystem restoration work to advance in the region at a meaningful scale in the coming years.
2324-T4W-093	Lake Babine Nation moose collaboration capacity	Skeena	18. FN Co-management	\$	50,000.00	This project involved continued the development and implementation of a multi-year moose monitoring and research study in collaboration with the Lake Babine Nation (LBN). Information was shared between LBN and the Province to support a shared understanding of the current state of moose and their habitat in LBN territory. This work provides the foundation for future shared stewardship and management actions. Shared decisions were also made as part of this project, including further refining the scope of the moose study, identifying steps for knowledge gathering and community engagement, and identifying on-the-ground actions and monitoring that are required.
2324-T4W-062	McTaggart-Cowan/nsak'Iniw't Wildlife Management Area post-wildfire assessment and restoration	Thompson Okanagan	11. Conservation Lands	\$	65,000.00	This project supported the completion of a Traditional Ecological Knowledge assessment of the McTaggart-Cowan/nsak'Iniw't Wildlife Management Area in the spring of 2023. Using the results of that assessment, a contractor (PIB Natural Resources) compiled a final four-seasons assessment report that also incorporated seasonal assessments from previous years. Additional work was completed with PIB Natural Resources over the winter of 2023-24 that focused on developing a draft collaborative agreement between PIB Natural Resources and the Ministry of Water, Land and Resource Stewardship's Biodiversity and Ecosystems Branch.
2324-T4W-054	Mesocarnivore monitoring program	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	21. FN Guardian Programs	\$	35,425.00	This project supported collaboration with Indigenous partners, academics, and the public to collect and collate mesocarnivore detection data, along with other wildlife and habitat data. A mesocarnivore is an animal with a diet comprised of 30-70% meat. Examples include martens, fishers, coyotes, foxes, minks, raccoons and otters. The primary aims of the project were to increase Indigenous participation in landscape-level resource stewardship, support implementation of the UN Declaration on the Rights of Indigenous Peoples, and increase employment opportunities for First Nations community members. The project team started building relationships with four First Nations partners and began to collaboratively monitor biodiversity within their territories. Funding partially supported 12 Guardians and local technicians throughout the 2023-24 fiscal year. The Guardians and technicians were trained to survey terrestrial wildlife by conducting remote camera and Autonomous Recording Unit (ARU) surveys, including deploying, checking and retrieving equipment and data. The Guardians and technicians also received training in data management and analysis (e.g., bat acoustic recordings and camera imagery). They attended The Wildlife Society (BC Chapter) conference, including co-presenting an informational poster on the project. The project also collated mesocarnivore occurrence data from academics and trappers and will produce updated provincial distribution and range maps for mesocarnivore species where there is sufficient data to do so. The project aims to collaboratively produce information and data-sharing agreements with First Nation governments, in order to increase our shared understanding of wildlife (e.g., at-risk species and food security species) to support co-management initiatives.
2324-T4W-095	Minister's Wildlife Advisory Council	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	1. Minister's Advisory Council	\$	95,519.00	The Minister's Wildlife Advisory Council provided strategic advice to the B.C. government on a number of topics in 2023/24, including funding priorities, Chronic Wasting Disease, the ongoing Wildlife Act Review, and development of the Biodiversity and Ecosystem Health Framework. The Council also held another successful round of wildlife-related dialogues with First Nations and stakeholder groups, focusing on the ongoing Wildlife Act review. The council continues to provide well-considered recommendations to the B.C. government on a wide range of issues that impact wildlife and the integrity of wildlife habitat.
2324-T4W-053	Mitigating human-bear conflicts in the Omineca Region	Omineca	9. On-the-ground Action	\$	12,829.70	Project funding supported the work of two contractors and included giving a presentation to the Nechako Valley Regional Cattlemen's Association, publishing an article in Country Life in BC, and completing outreach work at local farmer's markets. All these components also provided information to farmers, ranchers, and rural landowners about mitigating human-bear conflicts. Interest generated from these events resulted in three landowners participating in the provincial government's electric fence cost-sharing program (two near Prince George, and one near McBride).
2324-T4W-039	Mitigating human-bear conflicts in the West Coast Region	West Coast	9. On-the-ground Action	\$	16,489.14	This multi-year project aims to improve the black bear orphan cub rearing process to maximize their survival and minimize the chance of human-bear conflicts after the cubs are released from a rearing facility. To support the annual objectives, six GPS-collared orphaned cubs were released back into the wild on Vancouver Island after captive rearing. The active collars were monitored to understand survival rates and habitat use by the reared bears. The GPS collars were retrieved and mortality investigations were conducted. Captive rearing of orphaned bear cubs is a high priority for the public, many stakeholders, and some First Nations. Learning from existing rearing processes to improve success rates helps validate captive rearing as an option for orphaned black bear cubs. This work also provides information to support this option when managing human-bear conflicts involving family groups of bears or already orphaned cubs.
2324-T4W-104	Monitoring of mule deer response to habitat damaged by a 2021 wildfire within Skeetchestn territory	Thompson Okanagan	9. On-the-ground Action	\$	35,897.40	This project supported collaborative work with the Skeetchestn Indian Band that focused on addressing a knowledge gap around the recovery of mule-deer winter range post-wildfire in Skeetchestn territory.
2324-T4W-114	Moose survey	Northeast	4. Data and Information	\$	48,900.00	An aerial stratified random block survey (see definition below) was conducted for moose in Wildlife Management Units 7-19 and 7-32 of the Northeast region in January 2024. Two First Nations Land Guardians participated in the survey as observers. The data and information collected from the survey will provide updated population estimates, as well as bull-to-cow ratios and cow-to-calf ratios. Information gathered during the survey will also form the basis of a technical report to be submitted to and made available via the Integrated Data and Analysis Services Branch. Definition: Stratified blocks are survey units designed to sample areas (strata) with different densities of the species of interest. Blocks on the landscape are typically selected randomly prior to being surveyed.
2324-T4W-007	Mount Edziza sheep and goat survey: 6-21A	Skeena	4. Data and Information	\$	22,500.00	An inventory survey of mountain goats and thinhorn sheep in Mount Edziza Provincial Park was completed. The area is part of Limited Entry Hunting (LEH) Zone A of 6. The observed goats were classified by age (adult, kid). The sheep were classified by age: lamb, ewe-like (includes Class I rams), ram. Sheep were also classified by sex: ewe-like (includes Class I rams), Class II, Class III and Class IV rams). Demographic ratios were calculated for both species. The number of animals observed was used to estimate the population of each species within the LEH Zone. These estimates will inform regulatory and allocation processes associated with harvest management.
2324-T4W-086	New Conservation Lands model - scoping study	Kootenay Boundary	11. Conservation Lands	\$	17,167.50	This project supported the development of a scoping study to understand whether a more effective management and delivery model could be implemented to manage Conservation Lands in the East Kootenay. The study identified alternative models that would increase the potential for effective and collaborative management of the Conservation Lands program in the East Kootenay.

2324-T4W-024	Northern Goshawk inventory and nest monitoring in the Cariboo Region	Cariboo	4. Data and Information	\$ 16,078.93	The northern goshawk is sensitive to forest harvesting due to its association with mature forests for breeding purposes. A lack of consistent monitoring in the past has posed a barrier to conservation planning and improved habitat protections for goshawks in the Cariboo region. The goal of this project was to develop and implement a long-term monitoring program to evaluate the population status and habitat requirements of goshawks. In 2023-2024, prerecorded goshawk calls were played in selected areas to illicit responses from adult goshawks. Nineteen autonomous recording units were deployed at 17 potential nesting sites throughout the Cariboo to detect the presence of goshawks in those areas. Survey protocols were successfully developed, field-tested, and refined, thereby ensuring efficient surveys in the future. The recordings were processed using BirdNET software, which uses artificial intelligence to recognize bird species from vocalization patterns. From the frequency and duration of goshawk vocalizations, nesting sites were identified and breeding outcomes inferred. These results were used to validate and refine habitat suitability mapping, and they represent the completion of the pilot work necessary to design and implement long-term monitoring for goshawk in the Cariboo.
2324-T4W-028	Nutria (<i>Myocastor coypus</i>) surveys in the Lower Mainland and South Coast	Ministry of Water, Land and Resource Stewardship - Biodiversity and Ecosystems Branch	4. Data and Information	\$ 26,943.34	Nutria (<i>Myocastor coypus</i>) are semi-aquatic mammals from South America that were introduced to North America during the fur trade in the late 1800s. While there are historical occurrences of nutria in B.C., past surveys did not find any evidence of the large rodents here. However, recently there have been several unverified public reports of these animals in the province. The recent flooding of the Nooksack River in the Lower Mainland may have facilitated increased movement of nutria from a location near Lynden, Washington, into B.C. As part of this project, contractors carried out targeted surveys for nutria in the Fraser Valley using wildlife cameras and bait stations. These surveys took place in locations associated with historical and recent sighting reports and potential migration routes into British Columbia from established nutria populations in Washington. A habitat suitability ranking system was applied to each survey site to quantify habitat potential for nutria. Factors such as the availability of the animals' preferred food, predator presence, proximity and watercourse connectivity to Washington, and the abundance of suitable habitat features were rated. Several new sites for surveillance were also identified for future study using the habitat suitability ranking. No nutria were detected in this study. Despite the lack of nutria presence, it is important to note that this does not indicate that the species is completely absent from the province. Continued surveys are recommended, especially in water bodies spanning the border that are surrounded by agricultural land, which could offer abundant food availability.
2324-T4W-020	Occupancy and effectiveness monitoring of Mountain goat Ungulate Winter Range (UWR)	West Coast	4. Data and Information	\$ 39,699.89	As part of this project, biologists assessed the practicality of Goat Management Units in the region and completed four days of aerial surveys in priority units. Observations of mountain goats during these surveys assisted in further validating the winter habitat model and refining the mountain goat Stewardship Baseline Objectives Tool. Information was also shared with the majority of affected First Nations, and many First Nations are now prepared to participate in formal consultations with the Province. Since these consultations were not completed, a decision on the proposed amendments was not reached this fiscal year. This work supports Action 4 of the Together for Wildlife (T4W) strategy through the collection and submission of mountain goat location and habitat data.
2324-T4W-082	Optimizing landscapes for ungulates through forestry activities	West Coast	8. Objective-setting	\$ 25,360.45	Project funds were used to purchase remote cameras and accessories to monitor ungulate habitat use and distribution. Additionally, helicopter surveys of mountain goats were completed to support Ungulate Winter Range (UWR) amendments.
2324-T4W-109	Outreach about grasslands in the Cariboo Region, through the use of infographics	Cariboo	3. Public Engagement	\$ 7,020.00	An infographic about the importance of grasslands in the Cariboo Region was developed by a contractor to serve as outreach material and for educational purposes. The infographic shows the difference between upper grasslands, middle grasslands, and lower grasslands, and outlines how they are being impacted by development, recreation, over-grazing, and fire exclusion. Additionally, several visual aids were produced to illustrate concepts relating to mule deer winter ecology and the importance of designated Mule Deer Winter Ranges in the Cariboo. These were used during training sessions hosted by regional biologists.
2324-T4W-098	Performance measure framework	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	14. Performance Management	\$ 32,874.82	Action 14 of the Together for Wildlife strategy commits the B.C. government to developing a new performance measure framework to monitor the strategy's progress. Mitacs is a national organization focusing on research and innovation, and funding from this year and the 2022-23 fiscal year supported a Mitacs research fellow to draft that new framework. To seek guidance and feedback, the draft framework was presented to Together for Wildlife advisory bodies like the Minister's Wildlife Advisory Council and the First Nations-B.C. Wildlife and Habitat Conservation Forum. Extensive research was conducted on best practices, methodologies and potential performance measures. In addition, the research fellow completed internal engagements with government staff to determine the feasibility of the draft measures. Unfortunately, the Mitacs fellowship concluded before the draft framework was finalized. However, this work is continuing through the efforts of internal ministry staff, and Together for Wildlife performance measures are now being integrated into the annual reporting process under the Tripartite Framework Agreement on Nature Conservation.
2324-T4W-037	Provincial Chronic Wasting Disease (CWD) surveillance and management	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	9. On-the-ground Action	\$ 164,710.00	Chronic Wasting Disease (CWD) is a deadly disease affecting cervids (members of the deer family) such as deer, moose, and elk. The B.C. CWD Program is guided by a collaborative team that provides input and support for CWD prevention, surveillance, response planning and outreach activities throughout B.C., with a particular focus on areas that are at high risk for the disease. CWD surveillance (monitoring) is key to detecting this disease early. A monitoring program was delivered effectively in 2023, achieving its sampling targets in high-risk areas. The first cases of CWD in B.C. were detected in January 2024, which triggered the implementation of B.C.'s CWD Response Plan, in partnership with First Nations, stakeholders, agency partners and academic advisors. Immediate action was taken to expand surveillance in the affected area, apply preventative measures to mitigate the risk of disease spread, and identify research goals to support informed decision-making and next steps.
2324-T4W-112	Provincial Development – Regional Wildlife Advisory Committees (RWACs)	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	2. Regional Advisory	\$ 22,509.16	B.C. government staff held an internal workshop on the topic of regional wildlife advisory committees to identify current challenges and opportunities for the implementation of these committees. The workshop discussion helped with the creation of a guidance document (procedures paper) to support implementation of Action 2 of Together for Wildlife.
2324-T4W-060	Provincial wildlife data compilation, loading and access	Ministry of Water, Land and Resource Stewardship - Natural Resource Information and Digital Services (NRIDS)	7. Data Accessibility	\$ 14,685.08	In 2023-24, this project enabled the Integrated Data and Analysis Services Branch to coordinate data management and data access requirements for 2022-23 data-generating projects. Of the 2022-23 projects that were identified as data generating, the Integrated Data and Analysis Services Branch worked with project leads to standardize and move datasets into provincial systems where datasets are made broadly accessible. This included training projects leads on provincial-scale data management processes, systems and standardization. Wildlife datasets were loaded to the provincial databases that enable data (as well as other deliverables including spatial files, models and reports), to be accessible via various web-based tools (e.g., the Species Inventory Web Explorer) and via Wildlife Species Inventory (WSI), B.C. Geographic Warehouse layers and spatial tools (Habitat Wizard, BC CDC iMap). The Integrated Data and Analysis Services Branch also reviewed datasets to implement the Species and Ecosystems Data and Information Security (SEDIS) Policy. In 2023-24, the Integrated Data and Analysis Services Branch also leveraged a proportion of project funding to explore using a system to apply specifications within data management and sharing agreements to support collaborative data management with First Nation partners at the project scale.
2324-T4W-091	Public engagement on elk and grizzly bear stewardship frameworks	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	8. Objective-setting	\$ 20,000.00	This project supported online public engagement related to the draft Grizzly Bear Stewardship Framework and the draft Commercial Bear Viewing Strategy, which occurred from July 12 to Oct. 31, 2023 through the govTogetherBC website. Approximately 5,000 survey responses were received for the draft Grizzly Bear Stewardship Framework, and about 300 were received for the draft Commercial Bear Viewing Strategy. The public feedback resulted in numerous revisions to the draft frameworks, mostly minor but some significant, which improved these documents. No funds were required this year for public engagement on the draft Rocky Mountain Elk Stewardship Framework.
2324-T4W-115	Purchase of elk GPS collars	South Coast	4. Data and Information	\$ 26,450.80	This project supported the purchase of GPS collars for deployment on Roosevelt elk in multiple areas of the South Coast region. The collars will be active for approximately five years. Data from these collars will be used to inform elk inventory and sightability of marked individuals, as well as habitat use, distribution, survival, mortality, population estimates, and decisions regarding elk management objectives.

2324-T4W-032	Railway and wildlife collision assessment and strategy development	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	4. Data and Information	\$ 4,950.00	This project surveyed previously selected stretches of railways with a high likelihood of collisions involving trains and wildlife, as determined through prior aerial surveys. All detected mortalities of ungulates (i.e., hoofed animals such as moose, deer, bison, and caribou) were recorded and the elapsed times since the collisions with trains was estimated. A report on collisions in these high-risk areas was produced and will be the foundation of more extensive work in future to survey and eventually mitigate wildlife-train collisions in B.C.
2324-T4W-003	Ranavirus surveillance in the Northeast	Northeast	4. Data and Information	\$ 5,736.04	This project enhanced the Province's biological data by providing information on the presence of an amphibious virus (Ranavirus) in northern B.C. Ranavirus has the potential to cause mass die-offs of reptile, amphibian, and fish species that become infected. Twenty-one waterbodies were sampled in northeastern B.C. to test for the presence of Ranavirus. Water samples were collected from each waterbody and sent to a lab for analysis, at which time the lab tested the samples for the presence of Ranavirus DNA. Two waterbodies had a positive result, which indicated that Ranavirus was present and amphibian populations in those waterbodies are susceptible to transmission of the virus and may be susceptible to mass population die-offs.
2324-T4W-070	Regional Wildlife Advisory Committees: Skeena northern and southern wildlife stewardship tables	Skeena	2. Regional Advisory	\$ 30,509.68	Together for Wildlife funding supported the re-establishment of a wildlife stewardship advisory body in the northern Skeena Region: the Northern Wildlife Roundtable. This table includes representatives from First Nations, the B.C. government and stakeholder partners, and provides a space for ongoing dialogue to identify common stewardship interests and share information about wildlife stewardship work underway.
2324-T4W-040	Resourcing 2023/24 Together For Wildlife delivery in the Cariboo Region	Cariboo	22. FN Data Sharing	\$ 50,000.00	Together For Wildlife (T4W) funding supported priority engagement and collaborative planning forums in the Cariboo Region. These included the Tsilhqot'in National Government-B.C. Fish and Wildlife Panel, the Southern Dákelh Nation Alliance-BC Ungulate Working Group, and the Northern Secwépemc te Qel'máw-Esk'etemc B.C. Fish and Wildlife Communications Protocol Committee. Staff resourcing also supported the delivery of wildlife inventory and monitoring projects, including a moose survey in the 5-02C Management Unit, the Big Creek moose recruitment survey, a summer mountain goat inventory, and a winter Taseko-Dash bighorn sheep survey.
2324-T4W-045	Resourcing landscape resiliency assessment and old forest activities in the Cariboo	Cariboo	9. On-the-ground Action	\$ 28,194.16	This project supported tree and stand-level management for resiliency in the Williams Lake area. An auxiliary field technician was hired to support the regional landscape ecologist with collecting field data, including plant traits such as bark thickness and resin duct production in Douglas fir and lodgepole pine trees under different environmental conditions. The field technician also helped establish plots to monitor tree mortality at treatment areas near Williams Lake and collect old forest data to support the development of resource management objectives. The data gathered will be used to develop a spatial model to predict where areas vulnerable to disturbances exist, which will contribute to ongoing landscape resiliency work.
2324-T4W-044	Road data cleanup for access management planning in ungulate habitat in the Cariboo Region	Cariboo	9. On-the-ground Action	\$ 70,000.00	Fiscal year 2023-24 was the third year of funding for this project. Road data that covered approximately 14% of the Cariboo Region was verified. This consisted of comparing existing road data to recent high-resolution satellite imagery to determine if a road existed or not, and to flag if further "ground truthing" (verification at ground level) was required to determine its status. This year, more than 30,000 kilometres of roads were assessed, which included: an addition of more than 13,000 kilometres of roads that did not previously exist in the data; approximately 7,500 kilometres of road linework identified as not existing on the ground; and an additional 4,000 kilometres of roads that have been flagged for ground truthing. This updated road data will support access management planning in ungulate (i.e. hoofed animals such as moose, deer, bison or caribou) habitat, and will also feed into other key initiatives such as cumulative effects assessments and forest landscape planning.
2324-T4W-019	Roosevelt elk habitat selection	West Coast	4. Data and Information	\$ 90,000.00	In 2023-24, six GPS collars were deployed on adult female Roosevelt elk to maintain a minimum sample population of over 30 collared animals this past year. These collars collect long-term data on elk habitat use over time at multiple spatial scales. Twenty remote camera stations and "snow stakes" were used to collect a daily record of snow depth and winter severity at the monitored sites. In collaboration with research partners at the University of British Columbia, GPS collar data and camera data (collected over multiple years, seasons and varying winter conditions) were used to estimate seasonal models of habitat selection in summer, normal winter, and severe winter periods. Collared elk groups were monitored, counted, and classified in summer and winter to better understand population demographics associated with these seasonal habitats. As part of this monitoring, mortality investigations of collared elk were also conducted to better understand causes and rates of mortality. Elk population inventory data and habitat selection models in 11 Elk Population Units were used to calculate preliminary habitat-based density estimates of elk in these benchmark units to help assess habitat and population objectives in other population units.
2324-T4W-069	Skeena Conservation Lands (CLP) program assessment and management decision support tool - Phase 2	Skeena	11. Conservation Lands	\$ 58,333.33	This project supported the hiring of a contractor to use mapping and remote sensing information to identify key factors known to contribute to areas of high ecological importance. Enduring geographic features for terrestrial and aquatic ecosystems were identified and described, and an analysis was undertaken to identify areas of high geophysical diversity and uniqueness. These areas tend to support ecological rarity and diversity. Areas of high primary productivity (plant growth) and areas that may be refugia (see definition below) in the face of climate change were identified. Also mapped were areas that are important for landscape connectivity and intact areas not fragmented by roads or other human development, since they are key contributors to maintaining biodiversity over the long term. This information gathering and analysis will help conservation staff identify areas of interest for conservation management and designation in the Skeena Region. For the Skeena Conservation Lands program, it is already being used to identify areas as potential candidates for Wildlife Management Area designations. Definition: Climate change refugia are areas that are somewhat buffered from climate change compared to their surroundings.
2324-T4W-023	Skeena interior northern goshawk surveys	Skeena	4. Data and Information	\$ 29,099.14	This project collected breeding or occupancy and habitat data for about 20 predicted or known goshawk nest sites in the Skeena region. This field data supports continued development of long-term inventory and monitoring protocols and will allow biologists to better understand goshawk nesting habits in the region and support both voluntary and legal management methods for the northern goshawk.
2324-T4W-022	South Skeena moose and grizzly bears: Government Action Regulation (GAR), Ungulate Winter Range (UWR), and development of Wildlife Habitat Areas (WHAs)	Skeena	10. Land Designations	\$ 261,247.76	This project supported the development of draft linework (area boundaries) and general wildlife measures for moose and grizzly bears in the Lakes, Bulkley, and Morice Timber Supply Areas (TSAs). The work was discussed with First Nations and licensees for their review and refinement. Detailed processes and rationale were recorded and built upon, with field verification of the polygons (mapped areas) in 2024. Project funds also supported continued development of the Skeena wildlife ecological resource model, which provides an important base habitat model for the development of moose and grizzly bear land designations and effectiveness monitoring. The model was developed and supported by partner First Nations and continues to develop in partnership. By highlighting key habitats for focal species, the model ensures that land designations effectively target the intended habitats, now and in the future.
2324-T4W-058	Species Information Management System (SIMS)	Ministry of Water, Land and Resource Stewardship - Natural Resource Information and Digital Services (NRIDS)	7. Data Accessibility	\$ 109,960.00	The Integrated Data and Analysis Services Branch is continuing multi-year systems development work to modernize and replace legacy provincial wildlife databases and access systems. This work will help ensure that wildlife and habitat data are accessible to everyone and are reliable, and that datasets are consolidated on a provincial scale. In 2023-24, multiple fish and wildlife data management tools were streamlined to facilitate the submission of wildlife data, including species observations, telemetry, captures, mortalities, and survey metadata. The ability to upload species observations with attributes (such as life stage and body condition) and environmental data (like temperature and weather) was added to the Species Inventory Management System by integrating with the Critterbase data warehouse. The BC Telemetry Warehouse was integrated into the Species Inventory Management System to allow wildlife telemetry data to be automatically collected and visualized in real time alongside species observations. The Integrated Data and Analysis Services Branch also initiated the integration of the Wildlife Health System for data submitters to efficiently send wildlife capture and mortality data to wildlife health biologists and visualize wildlife health results. The Species Inventory Management System was integrated with BiodiversityHub BC, allowing data and information to be shared and for the Integrated Data and Analysis Services Branch to more efficiently implement the Species and Ecosystems Data and Information Security Policy. Features were also added that allow other data management tools and software applications, such as analytics dashboards, to integrate with the Species Inventory Management System to incorporate fish and wildlife data.

2324-T4W-006	Stikine goat survey: 6-22A, 6-21C; PMU 222	Skeena	4. Data and Information	\$ 9,000.00	A mountain goat inventory survey of three Limited Entry Hunting (LEH) zones was conducted July 11-13, 2023: Stikine Canyon (6-21C, 6-22A) and East Stikine (6-19A). A survey was also conducted in a Population Management Unit (PMU) adjacent to the East Stikine zone (PMU 222). The resulting observations were used to determine population estimates for the respective LEH zones. These estimates will inform regulatory and allocation processes associated with harvest management.
2324-T4W-004	Stone's sheep inventory for the Stone Mountain and Wokkash Population Management Units (PMUs)	Northeast	4. Data and Information	\$ 33,481.46	An aerial survey was conducted for Stone's sheep in Wildlife Management Unit 7-54. The survey area included the Sulphur 8 Mile area, including Muncho Provincial Park as well as Wokkash and Racing River in the Northeast region. Two First Nations land guardians participated as observers for the duration of the survey. Action 4 of the Together for Wildlife (T4W) strategy commits to enhancing biological, social and economic data. To that end, data collected from the survey will provide updated Stone's sheep population estimates, as well as ram-to-ewe and lamb-to-ewe ratios, to inform harvest management. The survey will also form the basis of a technical report to be submitted and made available via Natural Resource Information and Digital Services.
2324-T4W-090	Student research scholarships	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	5. Research	\$ 238,985.00	Ten \$20,000 academic scholarships were awarded to Master's degree and PhD candidates undertaking research that will support positive impacts on natural resource stewardship, management, policy, or decision-making regarding wildlife and wildlife habitat in B.C. Project topics include culturally important species such as black-tailed deer and black bear, shorebirds, cougar, mule deer, white-tailed deer, Stone's sheep, and bighorn sheep, as well as Indigenous Protected and Conserved Areas (IPCAs), human-wildlife conflicts, and invasive species.
2324-T4W-050	Support for B.C. Moose Tracker citizen science mobile application	Skeena	3. Public Engagement	\$ 192.59	Funding was used to promote a moose tracking app (Moose Tracker) locally in Smithers. The promotion increased awareness of the app in the community and over 25 new participants downloaded the app to their phones.
2324-T4W-000	Support for Provincial Grizzly Bear Stewardship Framework and Commercial Bear Viewing Strategy	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	8. Objective-setting	\$ 30,000.00	This initiative helped First Nations implement projects that will support their involvement in grizzly bear stewardship. This work included: partnerships with Tsilhqot'in National Government to help live-capture bears in the Chilko lake area to better understand where the bears that use the salmon in the river and lake each fall come from; partnerships with the Simpcw to help them implement a DNA-based grizzly bear inventory in the North Thompson; partnerships with the Southwest B.C. Grizzly Bear Recovery Team to hire a WildSafeBC coordinator for the Manning Park area and release two captive-reared juvenile grizzly bears into the Stein area; and, partnerships with the Southern Dakelh Nation Alliance to help members design a DNA-based grizzly bear inventory in the Quesnel Lake area.
2324-T4W-048	Thompson Okanagan bighorn sheep population recovery and stabilization	Thompson Okanagan	9. On-the-ground Action	\$ 54,979.58	The distribution and prevalence of cheatgrass (<i>Bromus tectorum</i> , a winter annual grass) was mapped in the Kamloops Lake sheep range to help analyze bighorn sheep's response to the presence of this grass, and eventually inform a treatment program to enhance degraded bighorn sheep range in the region.
2324-T4W-011	Thompson Okanagan moose monitoring program	Thompson Okanagan	4. Data and Information	\$ 19,028.13	A stratified random block survey (see definition below) was completed in Wildlife Management Unit 8-01. Results indicated lower densities of moose from previous surveys, bull ratios that continued to be below the objective, and normal calf ratios. Definition: Stratified blocks are survey units designed to sample areas (strata) with different densities of the species of interest. Blocks on the landscape are typically selected randomly prior to being surveyed.
2324-T4W-063	Thompson Okanagan Wildlife and Habitat Committees	Thompson Okanagan	2. Regional Advisory	\$ 32,937.61	The Thompson Okanagan region has moved to create regional wildlife and habitat advisory committees. Two committees were initiated, the Thompson-Lillooet Wildlife and Habitat Advisory Committee and the Okanagan Boundary Regional Wildlife Advisory Committee. Several in-person meetings were held along with virtual sessions, all focusing on creating a vision, relationship building, and trust related to regional wildlife and wildlife habitat stewardship.
2324-T4W-099	Thompson-Nicola Conservation Collaborative: Indigenous capacity and engagement for regional conservation action plan	Thompson Okanagan	23. FN Capacity Building	\$ 20,000.00	To support the creation of a conservation action plan that was being led by the Thompson Nicola Conservation Collaborative, funding was provided to engage further with First Nations in the region. This original funding was used to support First Nations capacity to have representatives attend in-person meetings, review information, and provide feedback. In addition to supporting engagement efforts, funding helped create the conservation action plan and a final report with specific recommendations for the B.C. government.
2324-T4W-113	Together for Wildlife communications	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	3. Public Engagement	\$ 27,674.91	In fiscal year 2023-24, communications efforts under the Together for Wildlife (T4W) strategy focused public engagement, and collaboration to support wildlife and habitat conservation in British Columbia. Key initiatives included developing the following: 1) Communications Engagement Framework, simplifying complex reports for broader accessibility; 2) "Wild Lives" stories, highlighting successful conservation projects; and, 3) Respect and Reconciliation guide that prioritized Indigenous collaboration and respectful engagement. Other activities included public consultations on biodiversity, along with creating infographics and web content to clarify T4W goals and actions. Overall, communications under T4W emphasized inclusion, accountability, and fostering a deeper connection between communities and wildlife stewardship.
2324-T4W-116	Together for Wildlife Conservation Lands	Kootenay Boundary	9. On-the-ground Action	\$ 19,976.25	This project included the development of an Invasive Species Management Plan to support habitat restoration at the East Side Columbia Lake Conservation Lands. Informational signage was developed and outreach and recreation monitoring were done to support recreation management at the Wycliffe Conservation Complex. These projects will contribute to the protection and restoration of important habitats within these Conservation Lands.
2324-T4W-117	Together for Wildlife Program Administration	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	NA	\$ 1,753,594.47	Program staffing, resourcing, and administration.
2324-T4W-089	Understanding people's values related to wildlife conservation in B.C.: a provincewide survey	Ministry of Water, Land and Resource Stewardship - Strategic Initiatives and Partnerships	3. Public Engagement	\$ 2,134.31	Progress has been made in the design of the wildlife values survey, which is funded under Action 3 of the Together for Wildlife Strategy. The project experienced delays due to unforeseen circumstances faced by the contractor, but the initial phases are complete, including setting up the survey sampling plan, and the development and approval of the survey instrument. The remaining tasks are the release of the survey, its administration, data cleanup and weighting, analysis, report development, and presentation of its findings. This project remains aligned with the goal of increasing opportunities for public engagement and involvement as outlined in the Together for Wildlife strategy.
2324-T4W-002	Ungulate management in the West Coast Region	West Coast	4. Data and Information	\$ 171,046.56	This project helped fill critical gaps in maintaining an inventory of ungulates (i.e. hoofed animals such as deer or elk) on Vancouver Island, which informs discussions with First Nations and stakeholders about sustainable harvest opportunities. Aerial surveys of elk were completed, and population estimates were developed. Using these estimates and sustainable harvest rates, sustainable elk harvest recommendations were developed and used to support discussions with about 20 First Nations and provincial decision makers to inform elk harvesting opportunities. Ground-based black-tailed deer surveys were also conducted in spring and summer in key areas on Vancouver Island, and trends in population-related metrics were assessed. No regulation changes were recommended. GPS collars were deployed on selected deer to assess our survey methods and begin filling the information gap on how changes to the landscape affect deer mortality risks.

2324-T4W-081	West Coast Roosevelt elk habitat selection and supply monitoring	West Coast	4. Data and Information	\$ 77,243.00	This project used GPS collar data from over 80 adult female Roosevelt elk to assess seasonal habitat supply (and related protection levels) at various habitat management scales. Seasonal habitat models were used to assess summer and winter habitat supply within 11 benchmark Elk Population Units. Severe winter habitat models were used to assess habitat supply within designated Ungulate Winter Ranges to help inform habitat effectiveness monitoring. GPS collars and remote cameras were used to identify specific areas that experienced concentrated elk use during periods of severe winter conditions. These areas were delineated and shared with relevant First Nations to support the setting of elk habitat objectives as part of Indigenous-led landscape conservation planning. To further understand the fine-scale habitat features used during severe winter periods, work was done in partnership with the Nanwakolas Stewardship Council and the Ha-ma-yas Stewardship Network to develop a ground-based ungulate habitat assessment protocol. Over 50 habitat plots at locations used by collared elk were conducted during these periods. As another part of this First Nations partnership, a remote camera monitoring plan was developed which will be implemented in the future. This plan focuses on assessing the elk's use of significant wallow sites and migration corridors so these important habitat features can also be factored into co-stewardship and landscape planning objectives.
2324-T4W-014	Wild sheep and goat Compulsory Inspections - respiratory disease surveillance	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	4. Data and Information	\$ 14,403.91	Respiratory disease has the potential to significantly impact wild sheep and mountain goat populations. Sampling materials were purchased and distributed to Compulsory Inspectors (CIs) around B.C., and a sampling protocol was developed. Contractors and biologists conducted Compulsory Inspections of wild sheep and mountain goats and collected biological samples, which were shipped to the B.C. Wildlife Health Program and catalogued. Priority samples were then submitted to the B.C. Animal Health Centre, which is the Ministry of Agriculture and Food's provincial lab, for testing. This surveillance (i.e., monitoring) supports wildlife management and conservation by passively collecting samples and data from a large sample of wild animals. If a positive result for disease is found, follow-up testing and management may be initiated.
2324-T4W-031	Wildlife Act review	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	12. Wildlife Act	\$ 198,579.00	A discussion paper was developed during the summer of 2023 that outlined existing challenges with the Wildlife Act, opportunities to improve the act, and examples of proposed changes to the legislation. The discussion paper was distributed to rights and title holders, advisory bodies, and B.C. government staff in October 2023. It was also shared with some special interest groups under confidentiality agreements. From October 2023 to March 2024, meetings were held with rights and title holders and special interest groups that expressed interest in providing input into the review. Two virtual information sessions were held in January 2024 for rights and title holders to receive more information on the ongoing review, provide input, and request further engagement opportunities. A working group consisting of representatives from the three advisory bodies (Minister's Wildlife Advisory Council, Provincial Hunting and Trapping Advisory Team, First Nations-B.C. Wildlife and Habitat Conservation Forum) was also established to provide input and discuss issues and opportunities of shared interest. All input and feedback received through this engagement process will feed into the development of a policy intentions paper outlining potential legislative changes. The intentions paper will be the subject of broad public engagement and consultations with rights and title holders in 2025.
2324-T4W-034	Wildlife data and licensing transformation project - mobile app development	Ministry of Water, Land and Resource Stewardship - Wildlife Branch	7. Data Accessibility	\$ 75,000.00	The development of a public mobile app for the Wildlife Information and Licensing Database (WILD) is a significant component of the ongoing Fish and Wildlife Data and Licensing Transformation project. This work will provide improved accessibility, integration, and information sharing for license and authorization holders, wildlife monitors, and stakeholders. The design phase of the public mobile app project has been completed. The initial tasks of this phase included an information architecture audit and review of the current web-based service, along with client and stakeholder interviews. Also included were card sorting and focus group sessions to determine favourable system functionality and how to improve the design elements of the current web-based service. The results of the combined information architecture review and stakeholder sessions were analyzed to inform the design of the public mobile app. The information architecture for the public app was then developed. The final task of this phase of the project was the creation of high-fidelity mock-ups for the first elements that are planned for use in the public app, for a total of 145 mock-ups for each phone and tablet presentation.
2324-T4W-025	Wolverine den monitoring and East Kootenay habitat modeling	Kootenay Boundary	4. Data and Information	\$ 52,125.00	This project is in the second year of a three-year initiative to conduct den monitoring and habitat modelling for wolverine in the Kootenay region. The project includes evaluating factors affecting wolverine distribution in the East Kootenay, monitoring known denning areas, and assessing other potential denning areas reported online (through wolverinewatch.org) for signs of wolverine activity, frequency of use, reproductive output and fidelity (returning to the same dens in future years). This project also seeks to improve existing management guidelines for backcountry recreation and industry activities in wolverine habitat. In 2023-24, a wolverine habitat model for the East Kootenay and associated spatial data were produced, and outreach was conducted with over 20,000 members of the public through wolverinewatch.org (including the distribution of an infographic communicating best practices around wolverine denning areas). Best management practices around wolverine denning areas (which pertained to backcountry tourism, commercial recreation and industry operations) were also published. These publications will support more informed decisions on wolverine management to maintain wolverines on the landscape.
2324-T4W-065	Yáqit ʔa-knuqł'it habitat restoration in the Flathead Valley	Kootenay Boundary	9. On-the-ground Action	\$ 35,000.00	This project was led by Yáqit ʔa-knuqł'it First Nation and included a field reconnaissance survey of roads that could be candidates for rehabilitation in the Flathead Valley and select mountain passes in the southern Rocky Mountains. Outcomes included the creation of spatial files of the roads and a report that highlights roads that Yáqit ʔa-knuqł'it members recommend for rehabilitation. A mountain pass monitoring report based on remote camera data was also completed for specific accessible passes in the southern Rocky Mountains. This report provides important data about human and wildlife use of these mountain pass routes that include sensitive alpine ecosystems.
TOTAL				\$ 6,607,194.48	