REPORT

Wildlife Management and Monitoring Plan

Soil Remediation at Former Wellsite Unipkat I-22,
Inuvialuit Settlement Region, Northwest Territories

Submitted to:

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1.0 INTRODUCTION

1.1 Background

WSP Canada Inc. (WSP) has prepared this Wildlife Management and Monitoring Plan (the Plan) on behalf of Shell Canada Limited (Shell) to support the soil remediation at the former wellsite Unipkat I-22 (the Site) in the Inuvialuit Settlement Region (ISR), Northwest Territories (NWT) (the Project).

This Plan was prepared in accordance with the Government of the Northwest Territories (GNWT) Environment and Natural Resources (ENR) (now GNWT Environment and Climate Change [ECC]) Tier 1 Wildlife Management and Monitoring Plan Guidelines (GNWT ENR 2019) and best practices to be employed during the ice road construction, maintenance and use, remediation and transportation activities at the Site. The Plan identifies mitigation measures, including wildlife encounter management measures, to avoid or minimize the potential effects of the Project on wildlife and wildlife habitat and Inuvialuit subsistence harvesting activities. The Plan also describes monitoring procedures that will be used to assess whether the identified mitigation measures are being implemented as planned and are functioning as intended.

As it is a requirement for work in the ISR, Inuvialuit Wildlife Monitors (hereafter referred to as Wildlife Monitors) will be hired for the Project to ensure the presence of Wildlife Monitors at the work site during all work activities (i.e., no work will be carried out without a Wildlife Monitor being present).

1.2 Location and Description

The Site is approximately 115 kilometres (km) northwest of Inuvik, in the ISR in the Mackenzie Delta, NWT at latitude 69°11’36.07” N and longitude 135°20’33.88” W. The site location is presented in Figure A1 (Appendix A).

Access to the Site in winter will be via ice road extension from the Inuvik to Aklavik public ice road and snowpack ramp, as presented in Figure A2 (Appendix A). The ice road extension to the Site will pass through Inuvialuit 7(1)(A) Private Lands and will follow the Mackenzie River East Channel and Arvoknar Channel (Figure A2, Appendix A). Access to the Site in summer will be via barge, boat or helicopter.

Shell developed the Site as an exploratory natural gas well site in 1972 and 1973 and re-entered in 1996 for additional well abandonment activities. Historically, the Site consisted of a camp sump, a well centre (e.g., a historical well marker), a drilling waste sump, a drilling flare pit and wood pilings used to support surface infrastructure above the ground.

1.3 Project Summary

The scope of work for the Project consists of the following activities:

- Potential mobilization of a self-contained barge camp with select soil remediation equipment (e.g., soil treatment equipment, loaders, excavators etc.) stored on-board in late summer or early fall of 2025 (submitted under Environmental Impact Screening Committee [EISC] Registry File [04/25-18]) to be anchored at the Site and frozen-in and winterized for the winter field program that will use an ice road extension for access.
- Construction of an approximately 110 km long ice road extension from a junction approximately 30 km north along the Government of Northwest Territories (GNWT) Inuvik to Aklavik public ice road. This will allow site access for equipment as well as the off-site transport and disposal of waste materials. The ice road extension will cross Inuvialuit 7(1)(A) Private Lands and will follow the Mackenzie River East Channel and Arvoknar

Channel (Figure A2, Appendix A). It is expected that ice road reconnaissance and profiling will begin in December 2025 and construction will be completed in February 2026. A snowpack ramp will be constructed at the Site to allow access for equipment and crew.

- Mobilization of remaining equipment (office trailer, including heated portable toilets, soil treatment equipment, skid steers, loaders, excavators, fuel trucks and fuel tanks, and other miscellaneous equipment) and self-contained winter camp (if the barge camp was not mobilized and frozen-in at the Site) to the Site via the ice road for the duration of the winter season.
- Excavation and on-site thermal treatment of approximately 3,800 cubic metres (m^3) of soil containing petroleum hydrocarbons (PHCs) contaminants of concern (CoCs; PHC Fraction F2 and Type B Hydrocarbons) at concentrations above the proposed soil quality objectives (SQOs) at the Site using Enhanced Thermal Conduction (ETC). ETC involves transfer of a heated airstream (typically between 300 and 450 degrees Celsius [°C]) to volatilize and destroy PHCs in soil whose concentrations are above the proposed SQOs. To facilitate this, soil will be placed in treatment cells in which heat is applied via a dedicated air burner fueled by diesel. Prior to heating, the cell of soil is covered as a means of capturing the PHC vapour off-gas that is generated by the heating. Throughout the process, the generated PHC vapours will be channeled to a thermal oxidizer outside of the treatment cell for destruction prior to atmospheric release. The thermal oxidizer will be operated within defined parameters and monitored to ensure the efficient and complete destruction of PHC vapours. The proposed site layout and remedial extents are presented in Figure A3 (Appendix A).
- Excavation and off-site disposal of approximately 100 m^3 of soil containing barite (i.e., true total barium) at concentrations above the proposed SQOs, at an approved disposal facility.
- If remediation activities are completed during the winter of 2026, select equipment may be demobilized from the Site via the ice road prior to breakup. Some equipment may be secured on site or on the barge camp (potentially anchored at the Site) to be demobilized from the Site following 2026 spring breakup.
- Select equipment that was demobilized from the Site prior to breakup, and a barge camp (if a winter camp was used) will be re-mobilized by barge and boat to the Site in June 2026 to resume soil remediation, if required. If a barge camp was used during the winter of 2026 (potentially anchored at the Site), it will remain during breakup and re-open to continue operations for the summer of 2026, if required.
- If required, remedial activities, including ETC treatment, may resume during the summer and fall months of 2026.
- Installation of post-remedial groundwater monitoring wells and pre- and post-remedial thermistors (proposed locations in Figure A3, Appendix A) during the winter (pre-remedial) and summer/fall (post-remedial) months of 2026, including monitoring well sampling of existing and newly installed groundwater monitoring wells.
- Final demobilization by barge in the summer/fall of 2026, before freeze-up.
- Post-remedial groundwater and thermal monitoring, completed as day trips from Inuvik via boat or helicopter access, in the summer/fall of 2027.
- Removal of remaining wood pilings at the Site using the previously employed perimeter drilling method (EISC Registry File [10/22-01]) anticipated during a 2027/2028 winter field program.
- Fuel storage at the Site will be in appropriate fuel tanks and trucks for refueling of the equipment and ETC units, fuel storage and refueling areas will be bermed. Drip trays and secondary containment will be used at fuel storage and refueling areas.

1.4 Project Contacts

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1.5 Roles and Responsibilities

Shell is responsible for the overall content and assignment of responsibilities of this Plan. Shell's contractors are responsible for the implementation of this Plan and are expected to adhere to it. All personnel working on the Project, including Shell employees, contractors and consultants, will be made aware of this Plan.

1.6 Guidelines

This document was prepared using the following guideline:

- GNWT ENR Tier 1 Wildlife Management and Monitoring Plan Guidelines (GNWT ENR 2019)

1.7 Associated Environmental Protection Plans

The following Project-specific management plans are also relevant to protecting wildlife and wildlife habitat:

- Waste Management Plan (Appendix D of the Project Description [PD]);
- Spill Contingency Plan (Appendix E of the PD); and
- Erosion and Sediment Control Plan (Appendix G of the PD).

2.0 WILDLIFE SPECIES AND HABITAT FEATURES OF CONCERN

2.1 Species of Conservation Concern

The Government of Canada's *Species at Risk Act* (SARA 2002) was enacted to prevent Canadian indigenous species, subspecies and distinct populations of wildlife from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, and to encourage the management of other species to prevent them from becoming at risk. The enactment established the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as an independent body of experts responsible for assessing and identifying species-at-risk (SAR). It provided that COSEWIC's assessments were to be reported to the Minister of the Environment and to the Canadian Endangered Species Conservation Council and it authorized the Governor in Council to establish the official list of species-at-risk based on that process. It required that the best available knowledge be used to define long and short-term objectives in a recovery strategy for endangered and threatened species and it provides for action plans to identify specific actions. The SARA (2002) created prohibitions to protect listed threatened and endangered species and their critical habitat. Species can be listed under three schedules. Schedule 1 is the official list of species that are classified as extirpated, endangered, threatened and of special concern. Species listed in Schedule 2 are species that had been designated as endangered or threatened and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1. Species listed in Schedule 3 are species that had been designated as special concern and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1 (SARA 2024, internet site).

In addition to federal legislation, the GNWT established the NWT Species General Status Ranking Program which produces the General Status Ranks of Wild Species in the NWT (Working Group on General Status of NWT Species 2021). Under this program, species' ranks are reviewed and published every five years. The 2021 report present the general status ranks for 8,228 species known or expected to be present in the NWT.

Species may be ranked as 'at risk' (have been assessed in detail and ranked by the NWT Species at Risk Committee [SARC] or COSEWIC as 'threatened' or 'endangered'), 'may be at risk' (may be at risk of extinction or extirpation and candidates for detailed risk assessments), 'sensitive' (may require protection to keep from becoming at risk), 'secure' (not at risk or sensitive), 'undetermined' (insufficient information to determine status), 'not ranked' (not ranked under program), 'alien' (introduced through human activities), 'extirpated / extinct' (no longer found in the NWT / world), 'vagrant' (infrequent and/or unpredictable occurrences outside normal distribution range) and 'presence expected' (species not yet recorded but expected to occur in the NWT) (Working Group on General Status of NWT Species 2021).

The NWT Species General Status Ranking Program provides species ranks to the NWT SARC, which was established under the *Species at Risk (NWT) Act* to assesses the biological status of species that may be at risk in the NWT, to identify threats and positive influences on species and their habitats, and to recommend whether a species should be added to the NWT List of Species at Risk (SAR) (NWT SARC 2024, internet site).

The following sections include summaries of species potentially occurring in the Project area that are currently listed territorially and/or federally.

2.2 Terrestrial and Marine Wildlife and Habitat

Terrestrial wildlife in the vicinity of the Site may include moose (*Alces alces*), barren-ground caribou (*Rangifer tarandus groenlandicus*), muskox (*Ovibos moschatus*), grizzly bear (*Ursus arctos*), , wolverine (*Gulo gulo*), grey

wolf (*Canis lupus*), arctic fox (*Vulpes lagopus*), red fox (*Vulpes vulpes*), lynx (*Lynx canadensis*), mink (*Neovision vison*), beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), snowshoe hare (*Lepus americanus*) and other small mammals.

Polar bears (*Ursus maritimus*) may be encountered in the vicinity of the Site. Typically, they are restricted to high Arctic areas with sea ice in summer and, in winter, they may be found in coastal onshore areas with maternity dens along the Yukon North Slope, Herschel Island, Kay Point, eastern Mackenzie Delta coastal and offshore areas (i.e., as defined by the Mainland Coastal Polar Bear Denning Areas [323C]; TCCP 2016).

Based on the Aklavik, Inuvik and Tuktoyaktuk Community Conservation Plans (AICCP 2016; ICCP 2016; TCCP 2016), the Site is within or near to the following Special Designated Lands recognized for terrestrial and marine mammals and their habitat (Figures A4a and A4b, Appendix A).

- Winter Wolverine Harvesting Areas (314C): key area for subsistence harvesting of wolverine during the winter.
- Critical Grizzly Bear Denning Areas (322C): considered important for denning grizzly bears from October to May.
- Mainland Coastal Polar Bear Denning Areas (323C): considered important for polar bear denning from October to March.
- Kendall Island Bird Sanctuary (706E): important area for polar bears and caribou. This area is considered a sensitive harvesting area.
- Mackenzie River Delta Key Migratory Bird Habitat (715C): important denning habitat for grizzly bears from October to May and polar bears from November to April.

At least 39 mammal species may be found in the Mackenzie Delta region (AICCP 2016; ICCP 2016; TCCP 2016). Several of these species are listed federally and/or territorially. Table A lists some species that may potentially occur in the general Project area.

Table A: Terrestrial and Marine Wildlife Species Potentially Occurring at the Site and their Conservation Status

Common Name	Scientific Name	NWT SAR[1]	COSEWIC[2]	SARA[3]
Barren-ground caribou	*Rangifer tarandus groenlandicus*	Threatened	Threatened	Under consideration
Muskox	*Ovibos moschatus*	Not listed	Not listed	Not listed
Moose	*Alces alces*	Not listed	Not listed	Not listed
Polar bear	*Ursus maritimus*	Special concern	Special concern	Special concern
Grizzly bear (western population)	*Ursus arctos*	No status	Special concern	Special concern
Grey wolf	*Canis lupus*	Not listed	Not at Risk	Not listed
Wolverine	*Gulo gulo*	No status	Special concern	Special concern
Lynx	*Lynx canadensis*	Not listed	Not at Risk	Not listed
Arctic fox	*Alopex lagopus*	Not listed	Not listed	Not listed

Common Name	Scientific Name	NWT SAR[1]	COSEWIC[2]	SARA[3]
Red fox	*Vulpes vulpes*	Not listed	Not listed	Not listed
Beaver	*Castor canadesis*	Not listed	Not listed	Not listed
Muskrat	*Ondatra zibethicus*	Not listed	Not listed	Not listed
Mink	*Neogale vison*	Not listed	Not listed	Not listed
Snowshoe hare	*Lepus americanus*	Not listed	Not listed	Not listed

Notes:

[1]Conference of Management Authorities. 2024. NWT List of Species at Risk. Species listed under the Species at Risk (NWT) Act.

[2]Species recommended by the COSEWIC for listing under Schedule 1 of the federal SARA.

[3]Species listed under Schedule 1 of the federal SARA.

Of the species listed in Table B, grizzly bears will be hibernating during the winter months and may be encountered at the Site during the summer months of the Project. If dens are encountered, the GNWT's Bear Complaint Checklist (Appendix B) will be completed. Polar bears are restricted to areas with sea ice during summer months; however, polar bears may be using the general area around the Site and female polar bears may be denning in maternity dens during the winter months in on- and off-shore areas along the coast north and west of the Site (Section 2.2.1). The Cape Bathurst Herd of barren-ground caribou may be wintering near the Site (and the ice road), the Tuktoyaktuk Peninsula Herd of barren-ground caribou may be wintering to the east and northeast of the Site and wolverine may be encountered year-round at the Site (Section 2.2.3 and 2.2.4). The other species summarized in Table B may be encountered during summer and winter Project work.

2.2.1 Polar Bear

Polar bears are designated as Special Concern by COSEWIC and are listed under Schedule 1 of the federal SARA as Special Concern (Table B). The species is also listed as Special Concern under the territorial *Species at Risk (NWT) Act* (Conference of Management Authorities 2024, internet site).

Polar bears in the NWT are distinguished into four subpopulations that are shared with Alaska, Yukon and Nunavut, and exact numbers for the NWT part of their ranges are difficult to estimate (NWT SARC 2021). Polar bears are restricted to areas with sea ice during summer months. During the winter months, polar bears of the Southern Beaufort Sea subpopulation (shared with Alaska and Yukon) may be using the general area around the Site and females may use maternity dens (e.g., in the Mainland Coastal Polar Bear Denning Areas [323C], TCCP 2016).

Climate-change-related losses in sea ice in the range of the Southern Beaufort Sea have been associated with declines in survival and reproduction in the Alaskan portion of their range. Evidence suggests that declines in sea ice habitat are also occurring in the NWT range, and this is likely negatively affecting polar bears of this subpopulation in the NWT (NWT SARC 2021).

The TCCP (2016) identifies Site 323C – Mainland Coastal Polar Bear Denning Areas as important for polar bear denning from October to March and Site 715C – Mackenzie River Delta Key Migratory Bird Habitat as important polar bear denning areas from November to April (Figures A4a and A4b, Appendix A).

Polar bears (or evidence of polar bears) were not observed during any previous site visits.

The potential presence of polar bears in the vicinity of the Site may result in negative bear-human encounters (potentially resulting in injury or fatality on both sides). Stored fuels and chemicals as well as food and waste products can be attractive to bears, and lead to negative encounters with humans. Additional potential adverse effects on polar bears that may be caused by Project activities include sensory disturbance that may result in habitat avoidance.

The potential for negative bear encounters will be minimized using Wildlife Monitors. The Wildlife Monitors will patrol the Site thoroughly upon first arrival and on a continual basis during the workdays to ensure that encounters are avoided. If bears (or signs of bears) are seen within 500 metres (m) of the Site, the GNWT's Bear Complaint Checklist (Appendix B) will be completed, and Project work will cease temporarily until the animal moves out of the area and the Wildlife Monitor(s) determines that the work can safely proceed. Additionally, risks of bear encounters will be reduced through the maintenance of a clean work site, and the use of appropriate bear-proof containers for the temporary storage of food and waste. The Project-specific Waste Management Plan will be implemented during all Project activities. Any helicopter site access (post-remedial monitoring) will follow applicable guidance (e.g., in the GNWT guidelines for flying low) (GNWT 2019) and the Canadian Aviation Regulations (2025) (e.g., adhere to flight altitudes, avoid hovering).

All personnel at the Site will receive bear awareness training and this Plan will be implemented and reviewed daily.

2.2.2 Grizzly Bear

Grizzly bears are designated as Special Concern by COSEWIC and are listed under Schedule 1 of the federal SARA as Special Concern (Table B). The species has no status under the territorial *Species at Risk (NWT) Act* (Conference of Management Authorities 2024; internet site).

The Mackenzie Delta has a low-density population of grizzly bears that reside year-round. Local grizzly bear denning generally occurs in landscapes between sea level and 100 metres above sea level and on south and west facing lakes and/or channel banks (AICCP 2016; ICCP 2016; TCCP 2016).

The TCCP (2016) describes grizzly bears as a furbearing species with important habitat in the Mackenzie Delta and along other major watercourses. Important denning habitat is known to occur in esker areas and on south-facing slopes. The TCCP (2016) identifies Site 322C – Critical Grizzly Bear Denning Areas and Site 715C – Mackenzie River Delta Key Migratory Bird Habitat as important habitat for grizzly bears from October to May (Figures A4a and A4b, Appendix A).

The range of grizzly bears in the NWT includes most of the mainland and their presence is increasing on Arctic islands. The estimated population size in the NWT is 4,000 to 5,000 bears (NWT SARC 2017a) with highest densities in the Mackenzie and Richardson mountains and lowest north of the treeline in the Mackenzie Delta, on the central barrens, and on Arctic islands (NWT SARC 2017a). Based on current data, the grizzly bear population in the NWT appears to be stable and may be increasing in certain areas (NWT SARC 2017a).

The potential for negative bear encounters will be minimized using Wildlife Monitors. The Wildlife Monitors will patrol the Site thoroughly upon first arrival and on a continual basis during the workday to ensure that encounters are avoided. If bears (or signs of bears) are seen within 500 m of the Site, the GNWT's Bear Complaint Checklist (Appendix B) will be completed, and Project work will cease temporarily until the animal moves out of the area and the Wildlife Monitor determines that the work can safely proceed. Additionally, risks of bear encounters will be reduced through the maintenance of a clean work site, and the use of appropriate bear-proof containers for the

temporary storage of food and waste. The Project-specific Waste Management Plan will be implemented during all Project activities. Any helicopter site access will follow applicable guidelines.

All personnel at the Site will receive bear awareness training and this Plan will be implemented and reviewed daily.

2.2.3 Wolverine

Wolverine are designated as Special Concern by COSEWIC and are listed under Schedule 1 of the federal SARA as Special Concern. The species has no status under the territorial *Species at Risk (NWT) Act* (Conference of Management Authorities 2024, internet site).

The TCCP (2016) describes that wolverine fur is important for local use and wolverine play an important part in maintaining balanced ecosystems and identifies a key area for subsistence harvesting of wolverine during the winter (i.e., Winter Wolverine Harvesting Areas, Site 314C; Figure A4a, Appendix A).

Wolverines occur across most of the NWT except the High Arctic islands (NWT SARC 2014). They occur at low densities and the population in the ISR is considered to be stable; however, recent declines have been detected in the NWT central barrens and may be related to barren-ground caribou population declines (NWT SARC 2014).

Negative wolverine encounters are extremely rare, and the likelihood will be further minimized using Wildlife Monitors. The Wildlife Monitors will patrol the Site thoroughly upon first arrival and on a continual basis during the workday to ensure that encounters are avoided. If a wolverine is seen within 250 m of the Site, Project work will cease temporarily until the animals move out of the area and the Wildlife Monitors determine that the work can safely proceed. Additionally, risks of wolverine encounters will be reduced through the maintenance of a clean work site, and the use of appropriate bear-proof containers for the temporary storage of food and waste. The Project-specific Waste Management Plan will be implemented during all Project activities. Any helicopter site access will follow applicable guidelines.

All personnel at the Site will receive wildlife awareness training and this Plan will be implemented and reviewed daily.

2.2.4 Barren-Ground Caribou

Barren-ground caribou are designated as Threatened by COSEWIC and are Under Consideration for Schedule 1 of the federal SARA (Table B). The species is also listed as Threatened under the territorial *Species at Risk (NWT) Act* (Conference of Management Authorities 2024, internet site).

Barren-ground caribou undergo seasonal migrations, often travelling long distances throughout the year (NWT SARC 2017b). Herds calve and summer in tundra habitats along the Arctic coast before migrating southwards in the fall to winter in areas below the treeline. Once spring arrives, herds migrate northwards back to their calving grounds (NWT SARC 2017b).

Calving grounds are an important habitat area for barren-ground caribou, with the calving/post-calving season considered a sensitive period (Nagy 2011). Other important seasons include the late summer and fall when barren-ground caribou (particularly females) regain their body condition to successfully breed, survive the winter, and/or calve the following spring, and the winter season, which barren-ground caribou spend below the treeline in areas where they can better survive harsh Arctic winters (Nagy 2011).

The TCCP (2016) describes that barren-ground caribou herds in the region are valued for subsistence harvest year-round.

The Tuktoyaktuk Peninsula Herd's year-round range is generally limited to the Tuktoyaktuk Peninsula (GNWT ECC 2024a, internet site). The herd was declining for several years; however, the size of the herd has increased recently and was estimated at approximately 3,000 animals in 2021 (GNWT ECC 2024b, internet site). Their traditional calving grounds are at the northern tip of the peninsula and the animals will migrate south in the fall. The likelihood of overlap with project activities is minimal as the herd typically uses an area well east of the Project area.

The Cape Bathurst Herd utilizes the Cape Bathurst and Tuktoyaktuk peninsulas (GNWT ECC 2024a, internet site) east of the Mackenzie River. The herd's calving grounds are on the Cape Bathurst Peninsula (east of the Tuktoyaktuk Peninsula), and their winter range may include the most southern parts of the Tuktoyaktuk Peninsula. The herd's numbers have been increasing over the past decade and were estimated at approximately 4,900 animals in 2021 (GNWT ECC 2024b, internet site). It is assumed that the herd may potentially use the general Project area.

Mitigation measures for barren-ground caribou will include the use of Wildlife Monitors to conduct continuous patrols of the Site during the workdays to scout for any caribou (or sign of caribou) in the vicinity. If caribou are seen within 500 m of the Site, Project work will cease temporarily until the animals move out of the area and the Wildlife Monitors determine that the work can safely proceed. If vehicles travelling on the ice road encounter caribou, the traffic will stop and wait at least 5 minutes for the caribou to move off the ice road. If the caribou do not move off within 5 minutes, the vehicle can start moving slowly to encourage the caribou to move off the ice road. Vegetation disturbance will be limited to the extent practicable. Any helicopter site access will follow applicable guidelines.

All personnel at the Site will receive wildlife awareness training and this Plan will be implemented and reviewed daily.

2.3 Avian Wildlife and Habitat

The vast majority of birds that are found in and around the Mackenzie Delta are migratory waterfowl and shorebirds that are present from May to October. The delta provides important nesting, breeding and staging habitat for avian wildlife, in addition to key subsistence harvesting areas for Inuvialuit hunters.

Based on the Aklavik, Inuvik and Tuktoyaktuk Community Conservation Plans (AICCP 2016; ICCP 2016; TCCP 2016), the Site is within or near the following Special Designated Lands recognized for avian species, their habitat and/or subsistence harvesting (Figure A4b, Appendix A).

- Spring Goose Harvesting Areas (304C): considered a key area for subsistence hunting of geese in the spring.
- Fall Goose Harvesting Areas (312C): considered a key area for subsistence harvesting of waterfowl during the fall.
- Kendall Island Bird Sanctuary (706E): valuable waterfowl breeding and staging grounds within the outer Mackenzie Delta. The islands of the outer delta are important staging grounds from late August to late September for several species of shorebirds. Shallow Bay area is an important staging area for greater white-fronted geese (*Anser albifrons*), Canada geese (*Branta canadensis*), cackling geese (*Branta hutchinsii*) and lesser snow geese (*Anser caerulescens*). Black brants (*Branta bernicla*) also migrate west through the outer

Mackenzie Delta. Large numbers of shorebirds migrate through the delta area. Small islands south of Kendall Island support a colony of lesser snow geese. Tundra swans (*Cygnus columbianus*), greater white-fronted geese, sandhill cranes (*Grus canadensis*), black brant, ducks and shorebirds, nest and moult throughout this area. This area is considered a sensitive harvesting area.

- Mackenzie River Delta Key Migratory Bird Habitat (715C): considered an important nesting and breeding habitat for migratory birds from May to September.

At least 125 bird species may be found in the Mackenzie Delta region (AICCP 2016; ICCP 2016; TCCP 2016), Several of these species are listed federally and/or territorially. Table B lists some species that may potentially occur in the general Project area.

Table B: Avian Species Potentially Occurring at the Site and their Conservation Status

Common Name	Scientific Name	NWT SAR[1]	COSEWIC[2]	SARA[3]
Bank swallow	*Riparia riparia*	n/a	Threatened	Threatened
Barn swallow	*Hirundo rustica*	n/a	Special concern	Threatened
Eskimo curlew	*Numenius borealis*	n/a	Endangered	Endangered
Harris's sparrow	*Zonotrichia querula*	n/a	Special concern	Special concern
Horned grebe (western population)	*Podiceps auritus*	n/a	Special concern	Special concern
Hudsonian godwit	*Limosa haemastica*	n/a	Threatened	Under consideration
Lesser yellowlegs	*Tringa flavipes*	n/a	Threatened	Under consideration
Red-necked phalarope	*Phalaropus lobatus*	n/a	Special concern	Special concern
Rusty blackbird	*Euphagus carolinus*	No status	Special concern	Special concern
Common loon	*Gavia immer*	n/a	Not at risk	n/a
Yellow-Billed loon	*Gavia adamsii*	n/a	Not at risk	n/a
Bald eagle	*Haliaeetus leucocephalus*	n/a	Not at risk	n/a
Golden eagle	*Aquila chrysaetos*	n/a	Not at risk	n/a
Peregrine falcon anatum/tundrius complex	*Falco peregrinus*	No status	Not at risk	No status
Gyrfalcon	*Falco rusticolus*	n/a	Not at risk	n/a
Rough-legged hawk	*Buteo lagopus*	n/a	Not at risk	n/a
Short-eared owl	*Asio flammeus*	No status	Threatened	Special concern
Snowy owl	*Bubo scandiaca*	n/a	Not at risk	n/a

Notes:

[1]Conference of Management Authorities. 2024. NWT List of Species at Risk. Species listed under the Species at Risk (NWT) Act.

[2]Species recommended by the COSEWIC for listing under Schedule 1 of the federal SARA.

[3]Species listed under Schedule 1 of the federal SARA.

n/a – not applicable

Both subspecies of the red knot (*Calidris canutus islandica* and *Calidris canutus rufa*) breed on the central and high arctic islands of the ISR hundreds of kilometres northwest of the Site. They may cross through the general area of the Site during migration. The *islandica* subspecies is listed as 'not at risk' by COSEWIC and as 'special concern' under SARA while the *rufa* subspecies is listed as 'endangered' through both COSEWIC and SARA. NWT SAR lists the status of both subspecies as 'not applicable'.

Most of the birds found in and around the Mackenzie Delta are migratory. They will be wintering in southerly locations during the winter months and may be using the Site and surrounding area for nesting, breeding and staging habitat during the summer months.

Mitigation measures for birds will include the use of Wildlife Monitors to conduct continuous patrols of the Site during the workdays to scout for any birds (or signs of birds) in the vicinity. Personnel working on the Project will be made aware of the potential presence and conservation status of birds, in particular bank swallows and will be encouraged to consult Environment and Climate Change Canada's (ECCC) pamphlet on the bank swallow (ECCC 2016; Appendix C). The Migratory Bird Regulations (Government of Canada [GOC] 2022) and ECCC's Guidelines to Avoid Harm to Migratory Birds and Fact Sheet: Nest Protection Under the Migratory Birds Regulations (ECCC 2023a,b, internet site) will be reviewed and followed. If active nests of any bird species are encountered within the Project area, they will be addressed through establishing a species-specific no disturbance buffer zone (i.e., a setback). The buffer zone will be determined using a setback distance appropriate for the species, the intensity of the disturbance, and the surrounding habitat until the young have naturally and permanently left the vicinity of the nest area. Any helicopter site access will follow applicable guidelines, including the following for birds.

- Avoid known concentrations of birds by a lateral distance of at least 1.5 km.
- Avoid the seaward side of seabird colonies and areas used by flocks of coastal migrating waterfowl by 3 km.
- Avoid excessive hovering or circling over areas of high bird concentrations.
- If avoidance is not possible, maintain a minimum flight altitude of 1,100 m over these areas.
- Inform pilots of these recommendations and of areas of high bird concentrations.

All personnel at the Site will receive wildlife awareness training and this Plan will be implemented and reviewed daily.

2.4 Insects

Numerous insect species are found in and around the Mackenzie Delta. Table C below provides a summary of insect species that are listed federally and/or territorially that may potentially occur in the general Project area.

Table C: Insect Species of Conservation Concern Potentially Occurring at the Site

Common Name	Scientific Name	NWT SAR[1]	COSEWIC[2]	SARA[3]
Suckley's cuckoo bumble bee	*Bombus suckleyi*	No status	Threatened	Under consideration
Transverse lady beetle	*Coccinella transversoguttata*	No status	Special concern	Special concern

Notes:

[1]Conference of Management Authorities. 2024. NWT List of Species at Risk. Species listed under the Species at Risk (NWT) Act.

[2]Species recommended by the COSEWIC for listing under Schedule 1 of the federal SARA.

[3]Species listed under Schedule 1 of the federal SARA.

Insects will be dormant during the winter months and may be using the Site and surrounding area during the summer months. However, potential effects on insect habitat (e.g., vegetation and terrain) will be limited to the area of soil excavation, soil treatment cells and staging area.

3.0 POTENTIAL ADVERSE EFFECTS

Direct disturbance of wildlife is expected to be minimal and primarily restricted to sensory (e.g., noise, olfactory and/or visual) disturbances. Direct disturbance (e.g., loss) of wildlife habitat is expected to be minimal with vegetation clearing (if required) limited to the area of soil excavation, soil treatment cells and staging area. Indirect habitat alteration via sensory disturbance (e.g., the effects of noise, light, dust and human presence on undisturbed adjacent habitats) may occur but is also expected be minimal.

Residual effects (i.e., the effects that remain after the implementation of all mitigation measures) on each identified valued component (VC) were assessed and their significance was determined using a qualitative approach, which uses best professional judgment, supplemented by available data from regulatory agencies and community knowledge. The VCs are environmental, cultural and/or social attributes considered important in project decisions. For this Project, based on sensitivity to Project effects, their importance to Inuvialuit, their territorial or national importance, the following wildlife and traditional land use related VCs were identified: polar bear, grizzly bear, wolverine, barren-ground caribou, migratory birds and subsistence harvest. Activities may overlap with the presence of some wildlife species, including barren-ground caribou, wolverine, grizzly bear, polar bear and migratory birds. Residual effects on these VCs were assessed and, while it is anticipated that the Project may result in adverse effects on these VCs, they are predicted to be not significant.

The potential adverse effects of the Project on the VCs are summarized in Table D below.

Table D: Potential Adverse Effects of the Project on Valued Components

Valued Components	Potential Adverse Effects
Barren-ground caribou	Sensory disturbance
	Indirect habitat alteration via sensory disturbance and direct habitat disturbance due to vegetation clearing and on-site remediation activities.
Polar bear Grizzly bear Wolverine	Sensory disturbance
	Negative human-wildlife encounters
Migratory birds	Sensory disturbance
	Indirect habitat alteration via sensory disturbance and direct habitat disturbance due to vegetation clearing and on-site remediation activities.
Subsistence harvest	Interference with Inuvialuit subsistence harvesting activities

4.0 MITIGATION MEASURES

4.1 Wildlife Protection Protocols

Mitigation measures to be implemented to avoid or reduce the potential impacts on wildlife and wildlife habitat in the immediate area during Project activities include the following.

- Wildlife Monitors will perform a wildlife sweep upon first arrival to the Site.

- Wildlife Monitors will be on the Site during all work, assessing the active work area regularly for wildlife and sign of wildlife and advising on any wildlife concerns. The identification of any wildlife of concern will be communicated immediately to other workers on the Site.
- Wildlife Monitors will work in alternating shifts to ensure monitoring takes place during all work activities.
- Posted speed limits on the ice-road will be adhered to by all Project workers and public use will be limited. Wildlife will be given the right-of-way at all times. Workers will stop as far back from the animal(s) as safely possible and will allow the wildlife to cross the ice-road or move away unhindered. If the wildlife does not move off within five minutes, the vehicle can start moving slowly to encourage the wildlife to move off the ice road.
- If wildlife is observed in proximity to the ice road, their location will be communicated to all Project staff.
- Snowbanks along the ice road will not exceed 1 m in height and will have regular gaps (e.g., every 30 m) to avoid entrapment of crossing wildlife.
- The ice road will be abandoned at the end of the winter work to limit public access to the Site.
- Establish barge camp anchored at the Site or a winter camp on land (on a compacted ice pad of a minimum thickness of 15 cm) or river ice.
- The office trailer will be established in previously disturbed area and all waste will be stored temporarily in secure, wildlife-proof containment prior to off-site disposal.
- Crews will keep the Site clean at all times, and food, attractants and waste will be temporarily stored in wildlife-proof containers and removed from the Site regularly as described in the Waste Management Plan (Appendix D of the PD).
- Hunting and trapping will be prohibited while working on the Site.
- A no firearms policy will be implemented for workers and contractors on the Site, except for the Wildlife Monitors, who will be certified to carry a firearm for potential use in the case of negative wildlife encounters.
- Wildlife Monitors will have access to a sufficient supply of approved bear deterrents such as cracker shells, bean bags, rubber bullets, scare cartridges or screamers, and a rifle with live ammunition available to be loaded.
- Workers will not be allowed to have domestic pets on the Site.
- The feeding or harassment of wildlife will be prohibited, and workers will not approach wildlife for any reason.
- Project activities will cease temporarily if caribou, wolverines or bears are observed within the vicinity of the work site; activities will only resume once the animals have left the area; the shut-down distance is 500 m for caribou and 250 m for wolverine (based on guidance provided in the Northern Land Use Guidelines for seismic operations [GNWT 2015]). The shut-down distance for polar bears is 500 m, and the GNWT's Bear Complaint Checklist (Appendix B) will be completed, if applicable.
- For other wildlife/bird incidents (e.g., human-wildlife encounters that do not involve a bear), the Wildlife Incident Form provided in Appendix D will be completed.

- Crews will receive bear awareness training and will follow this Plan and GNWT's Safety in Bear Country (GNWT ECC No Date) and GNWT ENR's Safety in Grizzly and Black Bear Country (GNWT ENR 2017; provided in Appendix E).
- Project activities, including vehicle and equipment use, will be restricted to the Project area and ice road. Workers will not walk onto land adjacent to the Project area.
- The volume, duration and frequency of noise-producing Project activities will be minimized to the extent feasible. Project-related noise will be minimized by regularly maintaining all vehicles and equipment, and fitting vehicles and equipment with appropriate and industry-standard mufflers or other sound dampening devices, if applicable.
- Wildlife Monitors will monitor for wildlife habitat features within the Project area and surrounding area prior to commencing any work activities. If an important wildlife habitat feature (e.g., active bear or wolverine den) is discovered, the GNWT ECC will be contacted immediately to determine the appropriate course of action. Other wildlife habitat features (e.g., active nests) will be addressed through establishing a species-specific no disturbance buffer (i.e., a setback). The buffer zone will be determined using a setback distance appropriate for the species, the intensity of the disturbance, and the surrounding habitat until the young have naturally and permanently left the vicinity of the nest area. To mitigate potential effect on nesting bank swallows, ECCC's pamphlet on the bank swallow (ECCC 2016, Appendix C) will be followed.
- The Migratory Bird Regulations (GOC 2022) and ECCC's Guidelines to Avoid Harm to Migratory Birds and Fact Sheet: Nest Protection Under the Migratory Birds Regulations (ECCC 2023a,b, internet site) will be reviewed and followed.
- Active den sites require setback distances to minimize disturbance. The Northern Land Use Guidelines for seismic operations identify recommended minimum setback distances for certain wildlife habitat features that may be applicable to the Project (GNWT 2015):
  - Bear dens (black bear, grizzly bear): 800 m minimum setback distance for bear dens between 30 September and 30 March. It is unlikely that female polar bears are denning around the Site.
  - Wolverine dens: 2,000 m minimum setback distance between 15 October and 15 July.
- Helicopter transportation (post-remedial monitoring activities) will follow all requirements in the GNWT guidelines for flying low (GNWT 2019) and the Canadian Aviation Regulations (2025) (e.g., adhere to flight altitudes, avoid hovering).

4.2 Wildlife Monitor Role and Expectations

The roles and expectations of the Wildlife Monitors include the following.

- Wildlife Monitors will be expected to participate in the kick-off meeting on the Site and in each of the daily tailgate meetings.
- Wildlife Monitors will not conduct any other work tasks other than acting as the Wildlife Monitor.
- Before the start of daily field activities, the Wildlife Monitors will travel the perimeter of the Site, complete a wildlife sweep and report the findings to the Site Supervisor.

- Wildlife Monitors will be equipped with a radio to communicate back to the Site Supervisor and crew if there is wildlife in the vicinity (within 500 m of work area for caribou and bears; within 250 m for wolverines).
- Wildlife Monitors are responsible for ensuring that workers are not subjected to a surprise encounter with, or attacks from wildlife.
- Wildlife Monitors will advise the crew on any concerns regarding wildlife and wildlife habitat protection.
- Wildlife Monitors are always the first line of response to any wildlife encounter.
- A Wildlife Monitor will be available during all Project work activities.
- Wildlife Monitors will analyze situations and make a determination if wildlife poses a threat to the crew.
- Wildlife Incident Forms (provided in Appendix D) will be completed for any incident not involving bears.
- Wildlife Monitors will only discharge their firearm with live ammunition in the event that personnel are threatened and in danger by wildlife, and/or when it is determined that wildlife poses a threat to the crew and the animal is not responding to other deterrents.
- Wildlife Monitors will handle, store and transport ammunition and firearms in accordance with federal and territorial regulations.
- If an incident occurs where a firearm is discharged for any reason, it must be reported to the Site Supervisor as soon as it is safe to do so and reported to the WSP Project Manager and to the Shell Project Manager as well as to the appropriate regulatory bodies as required.

4.3 Avoiding Wildlife Encounters

Wildlife encounters can be avoided and managed through a variety of behaviours, such as:

- early detection;
- attractants management;
- safe deterrence; and
- personnel training.

4.3.1 Early Detection

Early detection can assist in the avoidance of wildlife encounters. Sighting wildlife or signs of wildlife will help to determine how to respond to the situation. Wildlife Monitors will be present during the Project and will be responsible for watching for wildlife and evidence of wildlife. Personnel will be instructed to report any sightings of wildlife or signs of wildlife to the Wildlife Monitors (see also Section 4.2).

Signs of wildlife include:

- tracks;
- droppings;
- dens/nests;
- scratches/digging marks;
- hair/antlers; and

- food remains (e.g., recent kills).

4.3.2 Attractants Management

Either a barge camp will be anchored at the Site, or a winter camp with portable toilets will be established on land or on the river ice. An office trailer with portable heated toilets will be in previously disturbed areas (if applicable) of the Site. Solid and liquid wastes will be stored securely at the Site and regularly disposed of off site at an approved facility as per the Waste Management Plan (Appendix D of the PD).

Overall site attractiveness to wildlife will be minimized by maintaining clean work areas. The Project-specific Waste Management Plan provides details on all waste management aspects. Key wildlife-related aspects of this Plan for personnel include the following.

- Don't keep food (and food waste) in any areas of the work site other than in wildlife-proof containers.
- Store all garbage in wildlife-proof, lockable containers at a secured disposal site.
- Remove and transport all waste products regularly for off-site disposal.
- Store other attractants (e.g., petroleum products) in areas inaccessible to wildlife.

4.3.3 Safe Deterrence

Wildlife encounters can result in harm to personnel and wildlife. The Wildlife Monitors will be armed but defense kills of wildlife are only to be use as a last resort. If they can be applied safely, non-lethal deterrence methods are preferred. Non-lethal methods of deterrence may include the following.

- Use **Wildlife Monitors** to detect and deter wildlife.
- Shoot **projectiles** to deter wildlife (e.g., cracker shells, bean bags, rubber bullets, scare cartridges or screamers).
- Make **noise** (e.g., yell and shout, acoustic recordings or air horns).
- Flash **lights**.
- Use **chemical repellents** (e.g., pepper spray; note the limited effectiveness because it needs to be applied at short range to animal's eyes, nose or mouth).
- Use **trucks** to chase away large predators (e.g., bears and wolves) for personal protection (don't exceed speed of more than a steady trot and keep distance from the animals).

Warning shots and projectiles should never be aimed at wildlife. Shots need to be fired in the air or to the side of the animal. If wounded, animals (e.g., bears and wolves) can become dangerous. When taking deterrent actions, it always needs to be ensured that the animal has an escape route.

Project personnel that have access to non-lethal deterrents will be trained on site in their specific use. No non-lethal deterrents will be provided to personnel without the appropriate training. However, only the Wildlife Monitors are authorized to use guns to deter wildlife.

4.3.4 Personnel Training

WSP and its contractors will ensure that all personnel receive bear (and general wildlife) awareness training either before they arrive at the Site or immediately upon arrival. Training will encompass:

- review of this Plan;
- completion of bear/wildlife awareness training;
- review of safety procedures, including behaviour of wildlife and adequate responses to wildlife encounters;
- completion of environmental and site orientation;
- use and handling of non-lethal deterrents; and
- implementing attractants management.

4.4 What To Do in The Event of An Encounter

Safety is everyone's responsibility. The actions of each individual affect the safety of everyone else. All crew will be reminded daily of these simple rules.

- Be alert at all times.
- Respect all wildlife.
- Never approach wildlife for any reason.
- Never feed or harass any wildlife.

In the event of any wildlife encounter, personnel will immediately notify the Wildlife Monitors of the presence of wildlife. The Wildlife Monitors are trained to execute the following.

- Carefully observe if the animal is aware of the work party, whether it exhibits signs of anxiety, stress or aggression.
- Determine what the animal wants to do (e.g., break contact, move through the area or protect its young).
- Direct the team members to respond in a way that improves their safety; this may include bunching up, standing still, backing away, or displaying confidence or aggression.

The Wildlife Monitors will control and resolve the situation based on their training and experience. Personnel need to follow their instructions to assist in resolving the situation.

4.4.1 Bear Encounters

In the event of a bear encounter, a bear’s reaction to a person will be influenced by many factors and is never predictable. If bears are encountered, immediately seek shelter (e.g., inside vehicles, office trailer) and notify the Wildlife Monitor and Site Supervisor. Only the Wildlife Monitors and personnel with appropriate training are authorized to use deterrent equipment. The following measures will be implemented.

- Wildlife Monitors will be responsible for reporting problem bears.
- Wildlife Monitors need to have sufficient supplies of approved deterrents.
- All bear sightings and encounters will be reported to the closest GNWT ECC office.
- The GNWT’s Bear Complaint Checklist will be completed (see Appendix B).

- An order of potential responses to problem bears has been established for bear encounters:
  - Wildlife Monitors will use conventional means of deterring problem bears (e.g., vehicles, noise makers, rubber bullets and other non-lethal projectiles).
  - If not effective, use vehicle (don't stress the bear, undue harassment is illegal).
  - Report all events to a Wildlife Officer as soon as possible.
  - If no immediate threat, GNWT ECC may capture and relocate the bear.
  - If all deterrents have failed and capture and relocation have been deemed impossible, GNWT ECC may destroy the bear or give instructions to do so.

4.4.2 Other Wildlife Encounters

In the event other wildlife is encountered (e.g., wolverines, wolves, or lynx), take the following actions as soon as the animal(s) is/are noticed.

- Notify the Wildlife Monitor.
- Do not allow the animal to approach any closer than 100 m.
- Raise your arms and wave them in the air to make yourself appear larger.
- When in a group, act in unison to send a clear message to the animal that it is not welcome.
- Back away slowly, do not turn your back to the animal.
- Make noise, throw sticks or other objects into the direction of the animal.
- Follow the directions of the Wildlife Monitor. The Wildlife Monitor will decide how to act to ensure that the animals are not harmed in any way during Project work.

4.5 What To Do in The Event of a Spill

Spill response activities are detailed in the Project-specific Spill Response Plan (Appendix E of the PD). In the event of a spill that cannot immediately be cleaned up, take the following actions to deter wildlife (including migratory birds) from approaching the area.

- Use safe deterrents as detailed in Section 4.3.3.
- Erect a snow fence (or equivalent) to restrict access by wildlife; use flagging tape on the fence and on wood stakes to deter birds from landing.

In the event that wildlife comes into contact with a spill, GNWT ECC will be contacted immediately to determine the appropriate course of action. In the event that migratory birds come into contact with a spill, the Canadian Wildlife Service (ECCC-CWS) will be contacted to determine the appropriate course of action. Refer to Section 6 for detailed contact information.

5.0 MONITORING PROCEDURES

Wildlife Monitors will monitor interactions between wildlife and Project activities. They will work to minimize risk to wildlife and wildlife habitat from Project-related activities and risk to work crews from negative human-wildlife

encounters. Wildlife Monitors will be on the Site at all times during work activities, assessing the active work site regularly for wildlife and signs of wildlife and advising on any wildlife concerns. In addition, part of the Wildlife Monitors' day-to-day activities will be to monitor the effectiveness of the mitigation measures identified in this Plan to assess whether they have been implemented as planned and are functioning as intended.

Prior to commencing Project activities, Wildlife Monitors will monitor for wildlife habitat features (e.g., dens, nests) within the Project area and surrounding area. Procedures to follow if/when a wildlife habitat feature is identified are outlined in Section 4.1.

Wildlife Monitors will monitor for wildlife that may be approaching active work areas. If caribou, bears, or wolverines are observed within the vicinity of an active work site, the location of the animals will be communicated immediately to other workers on the Site and Project activities will be temporarily suspended. Active work will resume once the animals have moved out of the area. Setback distances for caribou and other wildlife are provided in Section 4.1.

All incidental observations of wildlife and wildlife habitat features (including dens) that may be observed or discovered during Project activities will be reported to the on-site Wildlife Monitors as soon as possible. The on-site Wildlife Monitors will document the observations, distribute the information as appropriate and implement appropriate mitigation measures as necessary. An example Wildlife Sighting Report Form is provided in Appendix F.

6.0 REPORTING REQUIREMENTS

The following points outline the reporting requirements for the Project regarding wildlife and wildlife habitat.

- All incidental observations of wildlife and wildlife habitat features (e.g., dens) that may be observed or discovered during the Project will be reported to the Wildlife Monitors as soon as possible. The Wildlife Monitors will document the observations and distribute the information as appropriate. An example Wildlife Sighting Report Form is provided in Appendix F.
- Any human-wildlife incidents will be reported immediately to the Wildlife Monitors. The Wildlife Monitors will document the incident and provide the information to the Site Supervisor as soon as it is safe to do so and report to the WSP Project Manager, Shell Project Manager and the GNWT ECC.
- For bear encounters, the GNWT's Bear Complaint Checklist will be completed (Appendix B). For other wildlife incidents (e.g., human-wildlife encounters that do not involve a bear), the Wildlife Incident Form provided in Appendix D will be completed. Incidents/interactions involving migratory birds will be communicated to the ECCC-CWS at cwsnorth-scfnord@ec.gc.ca.
- The use of any bear deterrents (i.e., non-lethal methods described in Section 4.3.3) by the Wildlife Monitors will be documented and reported to the Site Supervisor as soon as it is safe to do so and report to the WSP Project Manager, Shell Project Manager and the GNWT ECC. For use of bear deterrents, the GNWT's the GNWT's Bear Complaint Checklist will be completed (Appendix B).
- If Project-related activities result in the injury or mortality of wildlife, the injury or mortality will be reported immediately to the Wildlife Monitors who will then document the incident and provide the information to the Site Supervisor as soon as it is safe to do so and report to the WSP Project Manager, Shell Project Manager and the GNWT ECC. The injured or dead wildlife will be dealt with according to direction received from the

regulators. Following a Project-related injury or mortality of wildlife, the incident will be investigated and appropriate mitigation measures implemented to prevent a reoccurrence.

- The Wildlife Incident Form provided in Appendix D will be completed for incidents involving Project-related injury or mortality of wildlife.

A summary report of all wildlife-related observations and incidents will be completed and distributed as appropriate. This report will also summarize the effectiveness of the mitigation measures identified in this Plan, whether the mitigation measures were implemented as planned and functioned as intended, and any adaptations that were made to address changing conditions or unforeseen events.

In addition, the Wildlife Monitors on duty will report all wildlife observations and encounters to the Tuktoyaktuk, Aklavik or Inuvik Hunters and Trappers Committees (HTCs) on a regular basis (in accordance with their requirements). Once completed, the Bear Complaint Checklists (Appendix B), Wildlife Incident Forms (Appendix D) and Wildlife Sighting Report Forms (Appendix F) will be distributed as required.

Contact information is provided below:

- Tuktoyaktuk HTC: (867) 340-0057
- Aklavik HTC: (867) 978-2723
- Inuvik HTC: (867) 777-3671
- GNWT ECC Regional Office Inuvik: (867) 678-8091 ext. 53661 (for terrestrial wildlife and non-migratory birds)
- GNWT ECC Wildlife Emergency: (867) 678-0289 (for situations that may put public safety at risk)
- ECCC-CWS Northern Region: cwsnorth-scfnord@ec.gc.ca (for migratory birds)

7.0 REFERENCES

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8.0 STATEMENT OF LIMITATIONS

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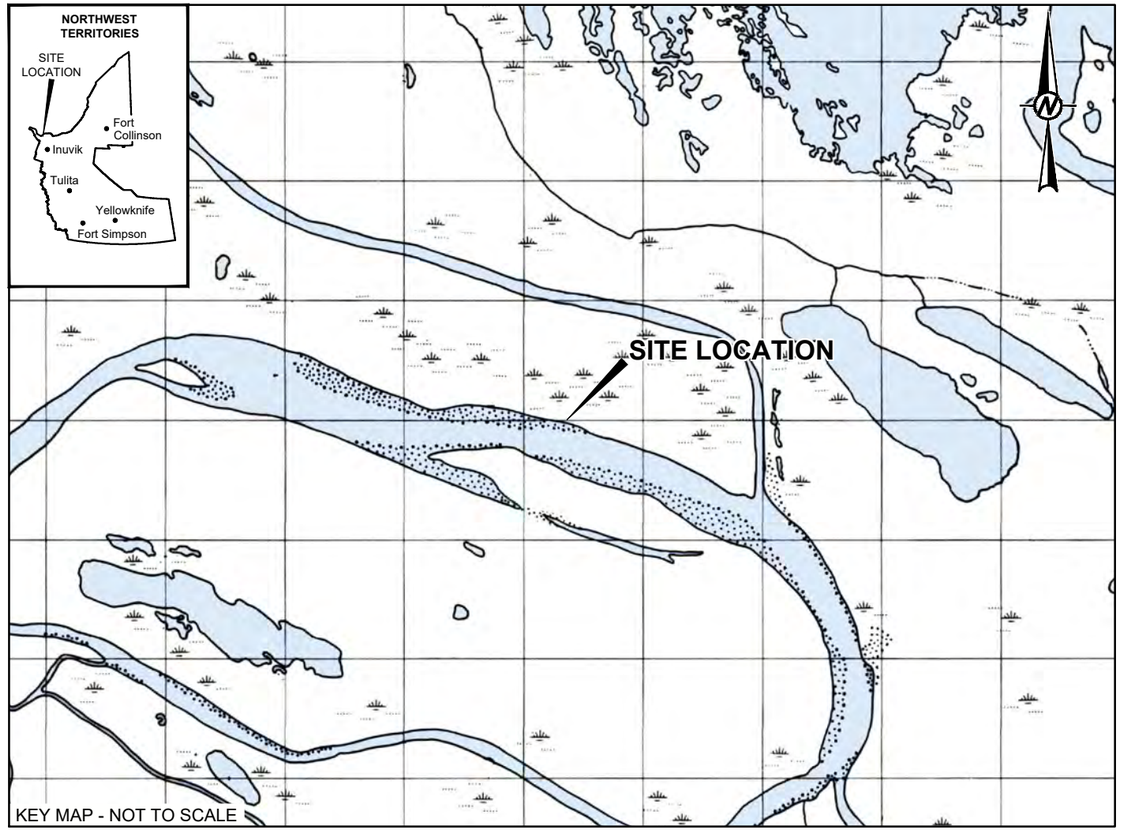
APPENDIX A

Figures



LEGEND

2024 SHORELINE

REFERENCE

IMAGE OBTAINED FROM GOOGLE EARTH © 2024 GOOGLE INC. USED WITH PERMISSION. GOOGLE AND GOOGLE LOGO ARE REGISTERED TRADEMARKS OF GOOGLE INC.
IMAGERY DATE: 4 JUNE 2019. GOOGLE EARTH IMAGE IS NOT TO SCALE. DATUM: NAD83, PROJECTION: UTM ZONE 8.

TOPOGRAPHIC MAP 107C/04OBTAINED FROM Canmatrix. © 1958 THE ARMY SURVEY ESTABLISHMENT, R.C.E. PROJECTION: TRANSVERSE MERCATOR; DATUM: NAD27;
COORDINATE SYSTEM: UTM ZONE 8. TOPOGRAPHIC MAP HAS BEEN SHIFTED FROM NAD27 TO NAD83 FOR MAPPING PURPOSES.

0 100 200
(APPROX.) METRES

CLIENT
SHELL CANADA LIMITED

CONSULTANT
wsp

YYYY-MM-DD	2025-05-07
DESIGNED	SVilleneuve
PREPARED	APaull
REVIEWED	JKrizan
APPROVED	PKalita

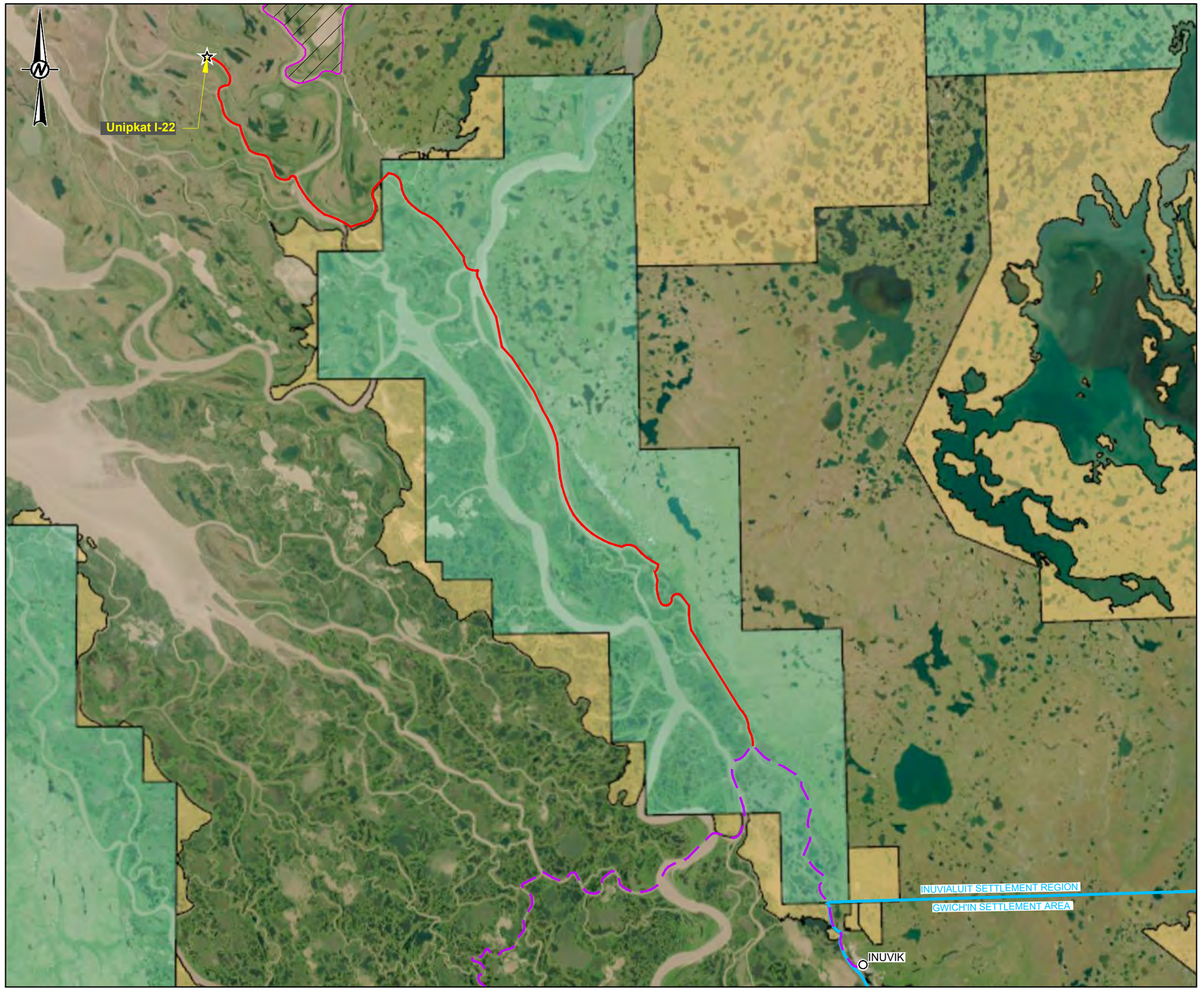
PROJECT
SOIL REMEDIATION
FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
SITE LOCATION PLAN

PROJECT NO.	PHASE-TASK	REV.	FIGURE
CA0042726.0037	1000-2403	0	A1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25 mm



LEGEND

- SITE LOCATION
- CONSTRUCTED UNIPKAT I-22 ICE ROAD
- AKLAVIK ICE ROAD
- SETTLEMENT REGION BOUNDARY
- KENDALL ISLAND BIRD SANCTUARY

INUVIALUIT PRIVATE LANDS

- SURFACE TITLE
- SURFACE AND SUBSURFACE TITLE

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.

REFERENCE

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE - CANADA
2. BASE MAP: EARTHSTAR GEOGRAPHICS
3. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 8N

0 10 20
(APPROX.) KILOMETRES

CLIENT
SHELL CANADA LIMITED

PROJECT
SOIL REMEDIATION
FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
SITE LOCATION WITH PROPOSED ICE ROAD

CONSULTANT

YYYY-MM-DD	2025-05-07
DESIGNED	SVilleneuve
PREPARED	APaull
REVIEWED	JKrizan
APPROVED	PKalita

PROJECT NO.	PHASE-TASK	REV.	FIGURE
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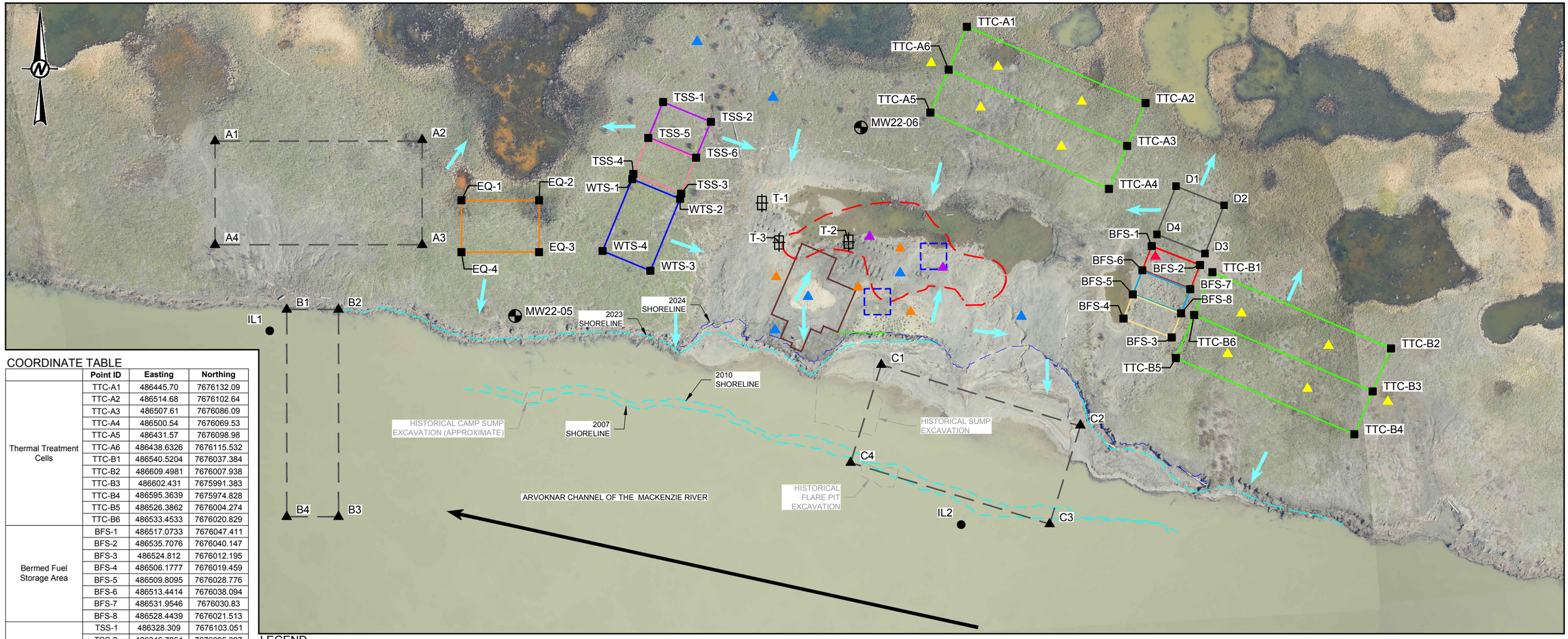


COORDINATE TABLE

	Point ID	Easting	Northing
Thermal Treatment Cells	TTC-A1	486445.70	7676132.09
	TTC-A2	486514.68	7676102.64
	TTC-A3	486507.61	7676086.09
	TTC-A4	486500.54	7676069.53
	TTC-A5	486431.57	7676098.98
	TTC-A6	486438.6326	7676115.532
	TTC-B1	486540.5204	7676037.384
	TTC-B2	486609.4981	7676007.938
	TTC-B3	486602.431	7675991.383
	TTC-B4	486595.3639	7675974.828
	TTC-B5	486526.3862	7676004.274
	TTC-B6	486533.4533	7676020.829
Bermed Fuel Storage Area	BFS-1	486517.0733	7676047.411
	BFS-2	486535.7076	7676040.147
	BFS-3	486524.812	7676012.195
	BFS-4	486506.1777	7676019.459
	BFS-5	486509.8095	7676028.776
	BFS-6	486513.4414	7676038.094
	BFS-7	486531.9546	7676030.83
	BFS-8	486528.4439	7676021.513
Temporary Soil Storage	TSS-1	486328.309	7676103.051
	TSS-2	486346.7864	7676095.397
	TSS-3	486335.305	7676067.681
	TSS-4	486316.8277	7676075.335
	TSS-5	486322.5684	7676089.193
	TSS-6	486341.0457	7676081.539
Activated Carbon Water Treatment System	WTS-1	486316.3993	7676073.299
	WTS-2	486334.8766	7676065.645
	WTS-3	486323.3953	7676037.929
	WTS-4	486304.9179	7676045.583
Equipment Lay Down Area	EQ-1	486250.4222	7676065.121
	EQ-2	486280.4222	7676065.121
	EQ-3	486280.4222	7676045.121
	EQ-4	486250.4222	7676045.121
Water Intake Locations	IL1	486176.3624	7676014.732
	IL2	486443.4605	7675939.946
Potential Locations of Land, Ice or Barge-based Camp	A1	486155.2446	7676087.94
	A2	486235.2446	7676088.475
	A3	486235.2446	7676047.94
	A4	486155.2446	7676047.94
	B1	486182.9283	7676022.999
	B2	486202.9283	7676022.999
	B3	486202.9283	7675942.999
	B4	486182.9283	7675942.999
	C1	486412.6244	7676001.643
	C2	486489.5093	7675978.281
	C3	486477.6255	7675940.178
	C4	486400.7407	7675963.871
Thermal Treatment Office/Control Center	D1	486526.4449	7676070.549
	D2	486545.0355	7676063.174
	D3	486537.6604	7676044.583
	D4	486519.07	7676051.96

LEGEND

- AREA OF REMAINING WOOD PILES
- EXCAVATION LIMITS (FORMER)
- SHORELINE
- OVERALL EXCAVATION EXTENTS FOR SOIL WITH PHC CONCENTRATIONS EXCEEDING SQOs FROM SURFACE TO 3.0 mbgs
- OVERALL EXCAVATION EXTENTS FOR SOIL WITH PHC CONCENTRATIONS EXCEEDING SQOs FROM SURFACE TO 1.5 mbgs
- POTENTIAL LOCATIONS OF LAND, ICE OR BARGE-BASED CAMP
- BERMED FUEL STORAGE
- BERMED HAZARDOUS WASTE STORAGE
- BERMED SOIL STORAGE FOR DISPOSAL
- EQUIPMENT PARKING / LAY DOWN AREA
- THERMAL TREATMENT CELLS
- ACTIVATED CARBON WATER TREATMENT SYSTEM AND TEMPORARY WATER STORAGE
- TEMPORARY SOIL STORAGE AREA (TREATED SOIL)
- TEMPORARY SOIL STORAGE AREA (UNTREATED SOIL)
- THERMAL TREATMENT OFFICE / CONTROL CENTER
- MONITORING WELL (EXISTING)
- THERMISTOR LOCATION
- WATER INTAKE LOCATIONS
- THERMISTOR TO MONITOR ETC TREATMENT CELLS
- POST-REMEDIAL GROUNDWATER MONITORING WELL
- PRE-REMEDIAL THERMISTOR
- POST-REMEDIAL THERMISTOR
- SPILL RESPONSE EQUIPMENT
- DIRECTION OF WATER CHANNEL FLOW
- DIRECTION OF SURFACE WATER FLOW

0 25 50
1:1,500 METRES

NOTES

1. ALL LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON ACTUAL FIELD CONDITIONS.
2. GPS COORDINATES PROJECTION: TRANSVERSE MERCATOR; DATUM: UTM83; COORDINATE SYSTEM: UTM ZONE 8.

REFERENCE

ORIGINAL DRAWING OBTAINED FROM CHALLENGER GEOMATICS LTD.; DWG No.: 22-35141-002; SCALE: 1:1,250; DATE: SEPTEMBER 12, 2022.

ADDITIONAL INFORMATION OBTAINED FROM IEG CONSULTANTS LTD.; PROJECT No.: A04025A02; SCALE 1:750; DATE: SEPTEMBER 20, 2011.

CLIENT
SHELL CANADA LIMITED

CONSULTANT
wsp

YYYY-MM-DD	2025-08-11
DESIGNED	SVilleneuve
PREPARED	APaull
REVIEWED	JKrizan
APPROVED	BVervoort

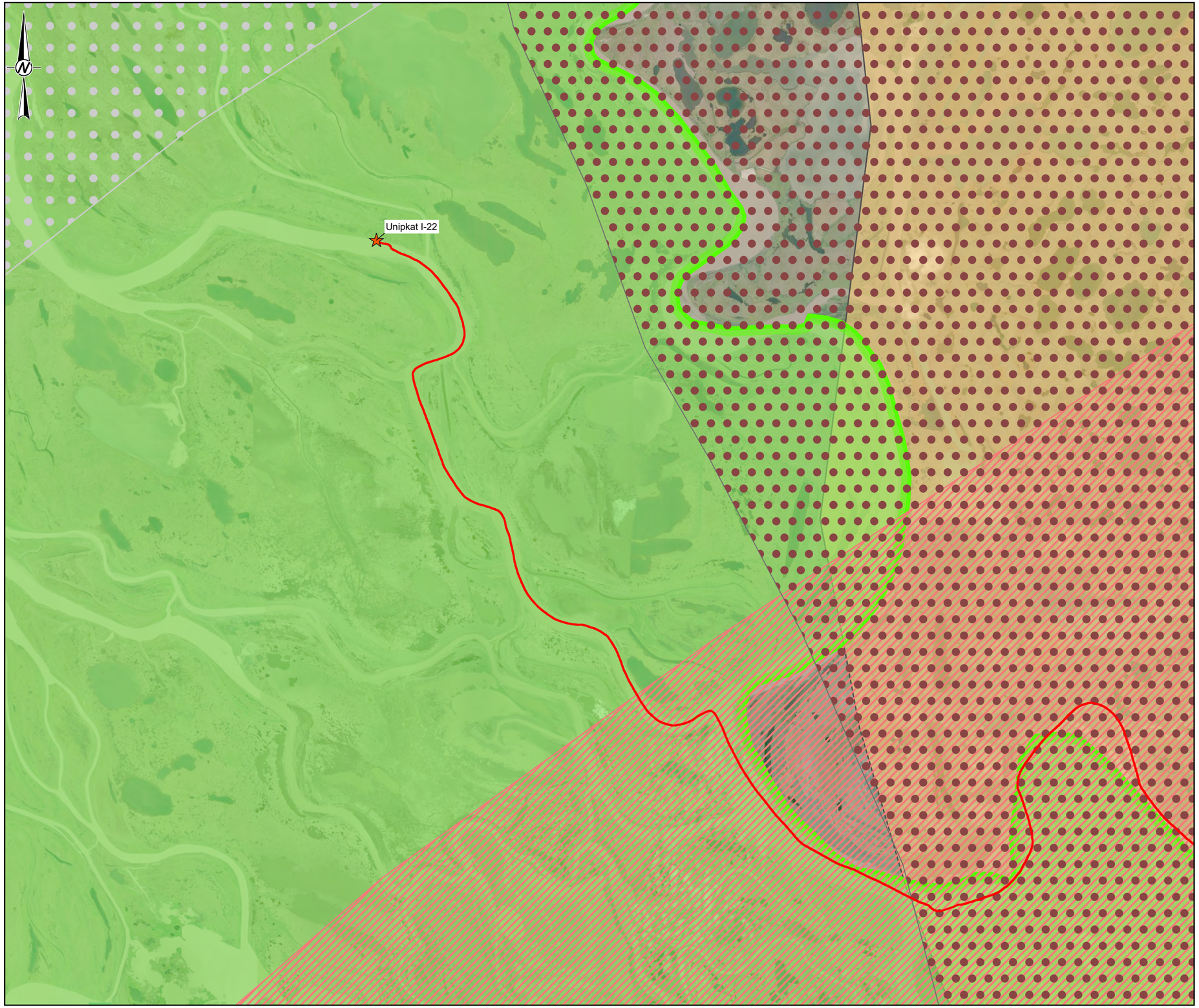
PROJECT
SOIL REMEDIATION
FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
PROPOSED SITE LAYOUT AND REMEDIAL EXTENTS FOR TYPE B PETROLEUM HYDROCARBONS AND BARITE (TRUE TOTAL BARIUM)

PROJECT NO.	PHASE-TASK	REV.	FIGURE
CA0042726.0037	1000-2403	1	A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25 mm



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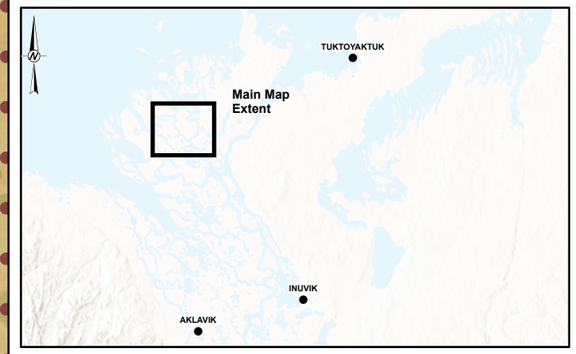

SCALE: 1:3,000,000

LEGEND

- SITE LOCATION
- PROPOSED ICE ROAD
- 303B - SPRING MOOSE HARVESTING AREAS
- 314C - WINTER WOLVERINE HARVESTING AREAS
- 322C - CRITICAL GRIZZLY BEAR DENNING AREAS
- 323C - MAINLAND COASTAL POLAR BEAR DENNING AREAS
- 718D - CENTRAL MACKENZIE ESTUARY

0 1,250 2,500 5,000

1:100,000 METRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - CANADA
2. BASE MAP: EARTHSTAR GEOGRAPHICS, STATE OF ALASKA, ESRI CANADA, ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, EPA, NPS, NRCAN, PARKS CANADA, ESRI, USGS
3. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 8N

CLIENT
SHELL CANADA LIMITED

PROJECT
MANAGEMENT PLAN
FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
SITE LOCATION WITH COMMUNITY CONSERVATION PLAN DESIGNATED LANDS

CONSULTANT

wsp

YYYY-MM-DD	2025-05-02
DESIGNED	J.REDSTONE
PREPARED	J.REDSTONE
REVIEWED	J.KRIZAN
APPROVED	P.KALITA

PROJECT NO.	PHASE-TASK	REV.	FIGURE
CA0042726.0037	1100.2403	0	A4a

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

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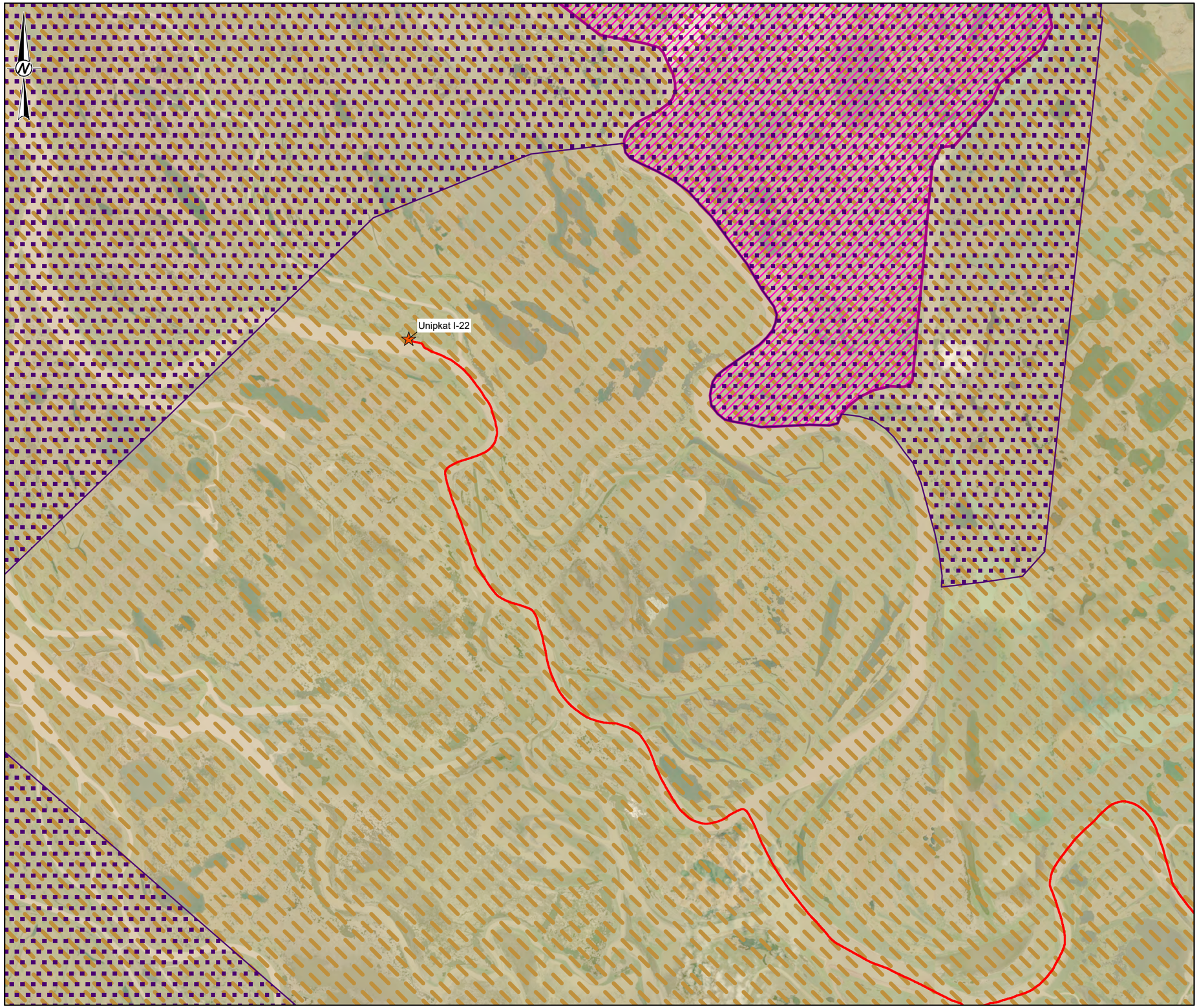

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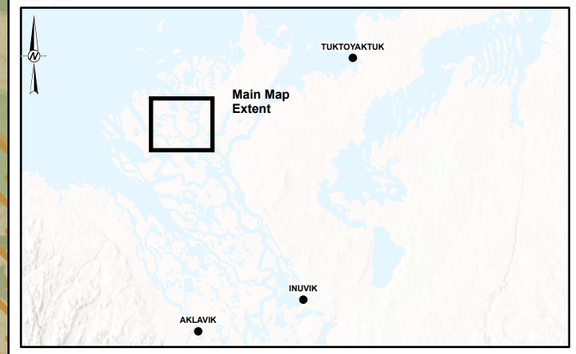

SCALE: 1:3,000,000

LEGEND

- SITE LOCATION
- PROPOSED ICE ROAD
- 304C - SPRING GOOSE HARVESTING AREAS - TUKTOYAKTUK
- 312C - FALL GOOSE HARVESTING AREAS
- 706E - KENDALL ISLAND BIRD SANCTUARY
- 715C - MACKENZIE RIVER DELTA KEY MIGRATORY BIRD HABITAT

0 1,250 2,500 5,000

1:100,000 METRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - CANADA
2. BASE MAP: EARTHSTAR GEOGRAPHICS, STATE OF ALASKA, ESRI CANADA, ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, EPA, NPS, NRCAN, PARKS CANADA, ESRI, USGS
3. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 8N

CLIENT
SHELL CANADA LIMITED

PROJECT
MANAGEMENT PLAN
FORMER UNIPKAT I-22 WELLSITE
INUVIALUIT SETTLEMENT REGION, NORTHWEST TERRITORIES

TITLE
SITE LOCATION WITH COMMUNITY CONSERVATION PLAN DESIGNATED LANDS

CONSULTANT

wsp

YYYY-MM-DD	2025-05-02
DESIGNED	J.REDSTONE
PREPARED	J.REDSTONE
REVIEWED	J.KRIZAN
APPROVED	P.KALITA

PROJECT NO.	PHASE-TASK	REV.	FIGURE
CA0042726.0037	1100.2403	0	A4b

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm

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APPENDIX B

GNWT's Bear Complaint Checklist

Northwest Territories Inuvik Region

Department of Environment and Natural Resources
PO Box 2749, Shell Lake, Inuvik, NT X0E 0T0
FAX (867) 678-6659

Bear Complaint Checklist

1. Complainant Details:

Date/Time of Report: _____
Complainants Name: _____
Affiliation/Location of Complainant: _____
Contact Number for Complainant: _____
Other on Site Contacts: _____
Wildlife Monitors Name: _____

2. Camp Details:

Location of Complaint: _____
Latitude/Longitude: _____
Type of Camp- Permanent/ Mobile: _____
Number of People in Camp: _____
How Long has Camp Been Here (if Mobile): _____
Are there any Aircraft on site? If yes, Type: _____

3. History of the Problem:

Date/Time Bear First Sighted: _____
Type of Bear: Grizzly_____ Polar _____ Black _____
Sex of Bear: Male _____ Female _____ Unknown _____
Age of Bear: Cub _____ Juvenile _____ Adult _____
Has Bear Been Observed Before: _____
Den site found (description)? _____
What was the Bear Attracted To: _____
Did the Bear Obtain Food: _____
Behaviour of Bear: Fearful _____ Not Fearful _____ Aggressive_____
Damage By Bear: _____

4. Deterrent Action:

Was the Bear Deterred? Yes_____ No _____
If Yes, Type of Deterrent Used: _____
_____
Present Status of Bear: _____
_____

5. Other Information:

Reporters Name/Title: _____
Weather on Site at Time of Report: _____
Checklist Forwarded to: _____

APPENDIX C

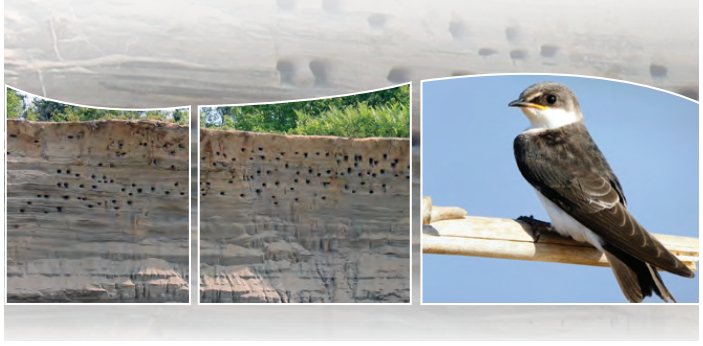
Bank Swallow (*Riparia riparia*) in Sandpits and Quarries

Environment and Climate Change Canada | Environnement et Changement climatique Canada

BANK SWALLOW

(Riparia riparia)

in sandpits and quarries



Canada

Did you know?

The Bank Swallow is a declining migratory bird species that has lost 98% of its Canadian population over the last 40 years. The Bank Swallow is listed on Schedule 1 of the Species at Risk Act as Threatened.

This insectivorous bird is particularly drawn to sandpits, quarries, stock piles of sand and soil, and sandy banks along water bodies and roads. **Bank Swallows generally dig their burrows in near-vertical banks (slopes of at least 70 degrees) that are more than 2 metres high.** Bank Swallows typically use their nesting sites from mid-April to late August. This is the sensitive period during which the risk of harming the birds is especially high. The absence of the birds in August is a good indicator that the breeding season is over.

The best way to minimize the possibility of contravening the *Species at Risk Act and the Migratory Birds Convention Act,* 1994 is to fully understand the impact that your activities could have on Bank Swallows and to take reasonable precautions and appropriate avoidance measures. In fact, under these Acts, it is an offence for anyone to kill, harm, harass or capture an individual or to damage, destroy, remove or disturb its nest or eggs or residence without a permit.

The sand and gravel industry can play a major role in the conservation of Bank Swallows by adopting operating practices that do not harm the species.

Where can I get more information?

For more information on avoiding harm or reducing the risks to migratory birds and their nests, please visit Environment Climate Change Canada's website https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/ or contact Canadian Wildlife Service at cwsnorth-scfnord@ec.gc.ca

What you can do

Before the breeding season
(generally before mid-April)

- Prevent Bank Swallows from nesting in areas where operations will be carried out during the breeding season by contouring your piles to have a slope of less than 70 degrees and by creating suitable nesting habitat in inactive areas with vertical faces of at least 70 degrees.
- Install scaring devices to deter Bank Swallows from establishing colonies in active areas.

During the breeding season
(generally from mid-April to late August)

- Avoid intense activity near the colony. You can prevent disturbance by marking off a protective buffer zone around the colony and notifying all employees of its existence.
- Generally speaking, there is a particularly high risk of disturbing nesting when noisy activities or vibrations occur within 50 metres of the bird colony. This protective radius is only a rough guideline and must be adjusted after an assessment of the risk factors. In some cases, where operating activities are intense, a larger protective radius may be needed to minimize the risk of disturbance.
- Spend a few minutes flattening vertical faces in active areas at the end of the day to prevent Bank Swallows from digging burrows in them overnight or on weekends.
- Stop excavation work if Bank Swallows colonize a bank in an active area. Activities cannot resume until the birds leave at the end of the breeding period.
- Do not use scaring devices once the colony is established as they may interfere with ongoing Bank Swallow breeding activities.

After the breeding season
(generally after late August)

- If a nesting site needs to be excavated after the birds leave, compensate by providing an alternate site that can support nesting in the following year. To be suitable for nesting, the bank must have a slope of at least 70 degrees.

Notify your employees of the restrictions and techniques that can be implemented to prevent detrimental effects on the species.

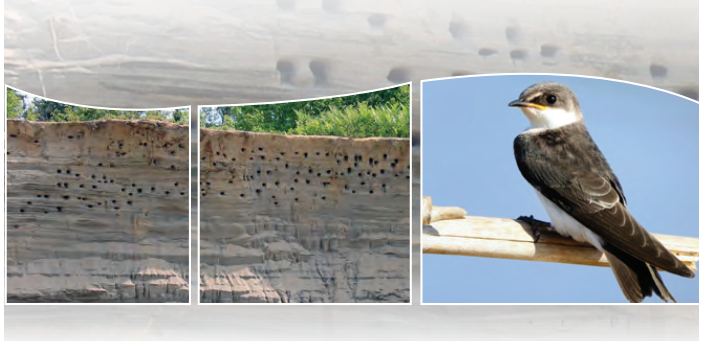
Thank you for participating in the conservation of Bank Swallows.

Environment and Climate Change Canada | Environnement et Changement climatique Canada

L'HIRONDELLE DE RIVAGE

(Riparia riparia)

dans les sablières et les gravières

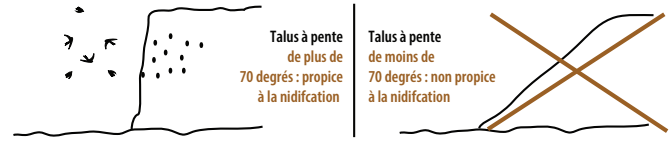


Canada

Le saviez-vous ?

L'Hirondelle de rivage est un oiseau migrateur en déclin dont la population canadienne a chuté de 98 % au cours des 40 dernières années. L'Hirondelle de rivage est inscrite à l'annexe 1 de la Loi sur les espèces en péril à titre d'espèce menacée.

Cet oiseau insectivore est très attiré par les sablières et les gravières, les amas de sable et de terre, et les talus sablonneux en bordure des plans d'eau et des chemins. **En général, les Hirondelles de rivage creusent leur terrier dans des fronts de talus presque verticaux (pente d'au moins 70 degrés) à plus de 2 m de hauteur.** Les Hirondelles de rivage utilisent généralement les sites de nidification de la mi-avril à la fin d'août. Il s'agit de la période sensible durant laquelle le risque de nuire aux oiseaux est particulièrement élevé. L'absence des oiseaux en août est un bon indicateur de la fin de la nidification.



La meilleure approche afin de réduire au minimum la possibilité d'enfreindre la *Loi sur les espèces en péril et la Loi de 1994 sur la convention concernant les oiseaux migrateurs* consiste à bien comprendre le risque d'incidence potentiel de vos activités sur les hirondelles de rivage et à prendre des précautions raisonnables et des mesures d'évitement appropriées. En effet, selon ces lois, quiconque tue, nuit, harcèle ou capture un individu ou endommage, détruit, enlève ou dérange leur nid, leurs œufs ou leur résidence sans permis commet un délit.

L'industrie des sablières et des gravières peut jouer un rôle important dans la conservation de l'Hirondelle de rivage en adoptant des pratiques d'exploitation qui ne nuisent pas à l'espèce.

Où puis-je obtenir plus de renseignements?

Pour obtenir plus d'information sur la façon d'éviter de nuire ou de réduire le risque d'effets néfastes sur les oiseaux migrateurs et leurs nids , veuillez consulter le site Web d'Environnement et Changement Climatique Canada https://www.canada.ca/en/environment-climate-change/ser-vices/avoiding-harm-migratory-birds/
ou communiquez avec Service canadien de la faune : cwsnorth-scfnord@ec.gc.ca

Ce que vous pouvez faire

Avant la période de nidification
(en général avant la mi-avril)

- Évitez que des Hirondelles de rivage nichent dans les zones qui seront exploitées durant la période de nidification en profilant vos talus avec une pente inférieure à 70 degrés, et en créant des zones propices à la nidification dans des zones non exploitées, avec des talus dont la pente est d'au moins 70 degrés.
- Installez des dispositifs d'effarouchement pour dissuader les Hirondelles de rivage d'établir une colonie dans les zones exploitées.

Pendant la période de nidification
(en général de la mi-avril à la fin d'août)

- Évitez les activités intenses à proximité de la colonie. Vous pouvez empêcher le dérangement en délimitant une zone de protection autour de la colonie et en informant tous les employés de l'existence de cette zone.
- En général, le risque de déranger la nidification est particulièrement élevé si des activités bruyantes ou des vibrations ont lieu à moins de 50 m de la colonie d'oiseaux. Cette distance de protection ne constitue qu'un ordre de grandeur et doit être ajustée après évaluation des facteurs de risque. Dans certains cas, lorsque les activités d'exploitation sont intenses, une plus grande distance de protection peut être nécessaire afin de réduire au minimum le risque de dérangement.
- Prendre quelques minutes à la fin de la journée pour supprimer les talus verticaux afin d'éviter que des Hirondelles de rivage ne commencent à creuser des nids durant la nuit ou durant les fins de semaine.
- Cessez toute activité d'excavation si des Hirondelles de rivage colonisent un talus dans une zone exploitée, et ce jusqu'au départ des hirondelles à la fin de la période de nidification.
- N'utilisez pas de dispositifs d'effarouchement une fois la colonie établie, tant et aussi longtemps que cela peut interférer avec les activités courantes de nidification des Hirondelles de rivage.

Après la période de nidification
(en général après la fin d'août)

- Si un site de nidification doit être exploité après le départ des oiseaux, en guise de compensation, voyez à fournir un site de remplacement pouvant soutenir la nidification l'année suivante. Pour être propice à la nidification, le talus doit avoir une pente d'au moins 70 degrés.

Informez vos employés des interdictions et des techniques qui peuvent être mises en œuvre pour éviter les effets néfastes sur l'espèce.

Merci de participer à la conservation de l'Hirondelle de rivage.

APPENDIX D

Wildlife Incident Form

Date (dd/mm/yyyy)	
Time (24 hour)	
Location (e.g., Coordinates, Local Name)	
Person(s) Involved (Name/Company)	
Wildlife Species Involved	
Description of the Incident (this may include a negative human-wildlife encounter, or the injury or mortality of wildlife)	
Description of Deterrents Used (if applicable)	
Reporting (check which items were completed)	□ Incident was reported to the on-site Inuvialuit Wildlife Monitor, and the person(s) involved completed a copy of this form and submitted it to the on-site Inuvialuit Wildlife Monitor. □ Incident was reported to the on-site Inuvialuit Wildlife Monitor, and the on-site Inuvialuit Wildlife Monitor completed a copy of this form on behalf of the person(s) involved. □ Incident was reported by the on-site Inuvialuit Wildlife Monitor to WSP Project Manager, Shell Project Manager and the GNWT ECC.

APPENDIX E

GNWT's Safety in Grizzly and Black Bear Country

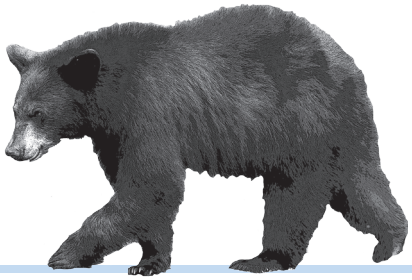
Deterrents...

- Include 12 gauge cracker shells, air horns, flares and chemical repellents such as pepper spray.
- Are not completely effective against every bear in every situation.
- Should not make you less careful to avoid bear conflicts.
- Are potentially dangerous so use with extreme caution.
- If you are using a chemical repellent, try to stay upwind of the bear before using.

If a Bear Charges...

- Many charges are bluffs. The bear will often veer to the side at the last minute.
- Use a chemical repellent only at close range.
- If you have a firearm and contact appears unavoidable, shoot to kill.
- If you play dead during a bear attack, lie on your side, curl into a ball with your legs tight to your chest and hands clasped behind your neck.

If you must shoot a bear in self-defence, report the kill to a Renewable Resource Officer as soon as possible and provide an explanation of the incident, the date and location of the incident, and any other information requested by an Officer. You may not keep any part of a bear killed in self-defence.



For more information, contact the Environment and Natural Resources regional office nearest you:

Fort Simpson	867-695-7450
Fort Smith	867-872-6400
Inuvik	867-678-6650
Norman Wells	867-587-3506
Yellowknife	867-767-9238 ext. 53461
Sahtú Wildlife Emergencies	867-587-2422
Dehcho Wildlife Emergencies (May – Sept)	867-695-7433
Fort Smith Wildlife Emergencies (May – Sept)	867-872-0400
Hay River Wildlife Emergencies (May – Sept)	867-875-7640
Inuvik Wildlife Emergencies (May – Oct)	867-678-0289
North Slave Wildlife Emergencies	867-873-7181
Wildlife Collisions/ Report a Poacher	866-762-2437

www.enr.gov.nt.ca

May 2017

Safety in Grizzly and Black Bear Country

Government of
Northwest Territories

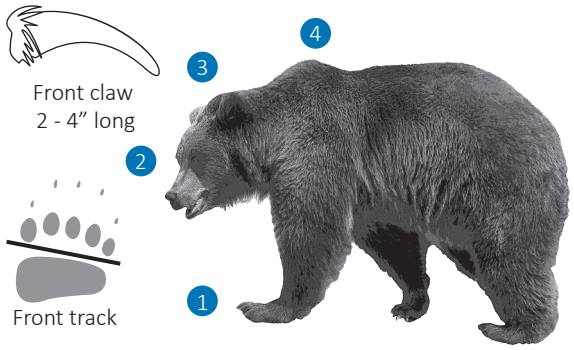
Welcome to Bear Country

Grizzly and black bears can be found throughout the Northwest Territories. They are an important part of the northern ecosystem. Northerners are committed to maintaining healthy populations of all wildlife, including grizzly and black bears. Treat bears with respect. Remember, you are in a bear's territory.

What's the Difference Between...?

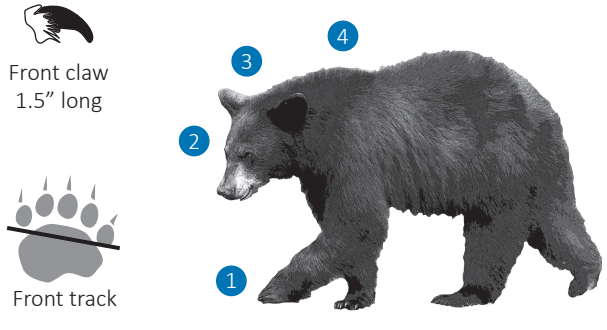
Grizzly Bear

1. Long, light claws
2. Dished face profile
3. Short, rounded ears
4. Shoulder hump



Black Bear

1. Short, dark claws
2. Straight face profile
3. Taller ears
4. No shoulder hump



While You are Travelling...

- Always be alert.
- Travel in groups.
- Travel only during daylight.
- Avoid carrying strong smelling foods.
- Make noise where visibility is limited.
- Avoid bear feeding areas such as flood plains, berry patches and areas rich in horsetails and other grasses.
- Avoid bear travel areas, including shorelines, trails or near berry patches.
- Watch for fresh bear droppings and tracks.
- Carry bear deterrents.

If You are Camping...

- Avoid camping in areas frequented by bears.
- Always sleep inside a shelter (tent, cabin, etc.).
- Don't keep food in tents or areas of your camp other than the cook tent or kitchen/cooking area.
- Keep a clean camp. Wash all dishes and utensils after every meal.
- Avoid cooking greasy foods.
- Burn all garbage every day or take it to a bearproof disposal site. ***Burying garbage does not eliminate odours.***
- If you are going to leave your campsite:
  - Bearproof your camp. Store food and other attractants (dish detergent, toothpaste, dog food, etc.) in an inaccessible place.
  - Let someone know where you are going.
  - Take a partner and bear deterrents with you.

If You Are Fishing...

- Be cautious near streams or lakes. Bears frequent these areas.
- Clean fish and dispose of guts away from camp.
- Keep and take home fish you catch on your last day only, to minimize bacterial growth in fish, and fish smells in camp.
- Don't wear clothes to bed that smell like fish.

If You are Hunting...

- Avoid hunting late in the day and returning to your camp in the dark.
- Stay alert when dressing game or handling meat and make sure you are away from your camp.
- Avoid shooting more than your party can pack out in a single load.
- If you must leave meat in the field, protect it from disturbance by other animals or the natural environment. Clearly mark the cache as yours before leaving it. Make sure you have a clear approach route when returning, and retrieve the meat as soon as possible to prevent wastage. Mark the meat to identify the harvester.
- Don't keep bloodied clothes in your tent.

If You Encounter a Bear...

- Remember the 3 S's... Stop, Stand still, Stay calm.
- Make sure others know a bear is in the vicinity.
- Do not run.
- Leave the bear an open avenue of escape.

...at a DISTANCE

- Alert the bear to your presence by speaking in low tones and slowly waving your arms.
- Quietly walk backwards the way you came or make a wide detour.
- Keep an eye on the bear.
- Stay downwind.
- Consider using warning shots, noisemakers.

...that is NEARBY

- Do not shout or make sudden movements.
- Avoid direct eye contact.
- Back away slowly.

APPENDIX F

Wildlife Sighting Report Form

Wildlife Sighting Report Form

Date:_____Time:_____Weather:_____

Observer (Name):_____

Location of sighting (description):

_____

Coordinates (if available):

_____

Mammals (please circle the applicable species):

Beaver Bear (black / polar / grizzly) Lynx Mink Moose Muskrat Caribou Wolverine Fox (red / arctic) Hare Other (_____)

Birds (please circle the applicable group):

Duck Goose Swan Loon Ptarmigan Eagle Falcon Hawk Other (_____)

Sex of mammal/bird: _____ Photo Taken? _____

Behaviour (please circle the applicable behaviour):

Running Walking Lying Feeding Flying Swimming Nesting Denning

Other(explain:

_____)

Any additional comment on behaviour?

_____

_____

_____

Number of animals _____ Any offspring/young _____

Signature: _____

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