



CHECKPOINT PROJECT SUMMARY

Land Use Permit and Water Licence Renewal Application

JUNE | 2024



Purpose

The Government of the Northwest Territories (GNWT), Department of Environment and Climate Change (ECC), formerly GNWT, Department of Environment and Natural Resources (ENR), is requesting the renewal of the existing Type B Water Licence (MV2017L8-0004) for the Checkpoint remediation and monitoring project, and associated Type A Land Use Permit (MV2017X0020).

The scope of work associated with the landfarm and former Highway Maintenance Camp remains unchanged and is planned to continue. Activities under the scope of work include care and maintenance, remediation, monitoring, and decommissioning. The GNWT-ECC is requesting the Highway Maintenance Camp be included in the renewed water licence as GNWT-ECC expects the discharge of water from an existing excavation may be required to properly complete assessment and remediation activities.

Site History and Background

The former Checkpoint Highway Maintenance Camp (Maintenance Camp) is located approximately one kilometer south of the Highway No. 1 and Highway No. 7 intersection in the Dehcho Region, Northwest Territories. The landfarm is located on the east side of Highway 7, approximately 1 km south of its intersection with Highway 1. The sites are adjacent to the Jean Marie River and approximately 60 km upstream of the Community of Jean Marie River. The Maintenance Camp and the landfarm are situated on Territorial Lands and are currently administered by the GNWT-ECC, formerly the GNWT, Department of Lands. The site coordinates are:

- Maintenance Camp - 61° 26' 30" N 121° 14' 50" W
- Checkpoint Landfarm Facility - 61° 27' 59" N 121° 16' 12" W

The Maintenance Camp was used for various activities between 1970 to 2000. It was first established as a highway maintenance camp by the Government of Canada in the 1970s. It was then leased to Yukon Construction Co. in the 1980s and remained as a highway maintenance camp until the mid-1990s. The site was then leased to Mackenzie Wood Products in 1996 and was used for logging and milling operations. Logging and milling operations ended in 2000 due to the lack of timber supply. Due to the operations at the site, it contained a dump, camp workings, maintenance area, residential areas, sawmill and various storage areas.

The landfarm was developed for remediation for hydrocarbon contaminated soils from the Maintenance Camp. All soils placed at the landfarm are now below guideline criteria and have been approved to be transported back to the Maintenance Camp to be used as backfill material. Most of the soil that has been treated at the landfarm has been transported back to the Maintenance Camp. Ongoing monitoring is being completed at the site. Activities include groundwater and surface water sampling at the Surveillance Network Program (SNP) locations, discharge of water from the retention pond and overflow cells into the designated discharge area. It is expected that additional impacted soil will be placed into the landfarm for remediation when the remediation program at the Maintenance Camp takes place.

Both the Government of Canada and the GNWT have completed assessments and initiated remediation efforts at the site. Previous work completed at the sites include:

- Jean Marie River Environmental Investigation (2001), Jean Marie River First Nation
- Phase II Environmental Site Assessment (2002), Jacques Whitford
- Phase III Environmental Site Assessment and Remedial Action Plan (2007), EBA Engineering Consultants
- Supplemental Phase III Environmental Site Assessment Former Checkpoint Highway Camp (2012), Columbia Environmental Consulting Ltd.
- Supplemental Phase III Environmental Site Assessment (2017), BluMetric Environmental Inc.
- Remedial Action Plan Checkpoint Highway Maintenance Site (2017), BluMetric Environmental Inc.
- Human Health and Ecological Risk Assessment Checkpoint Highway Maintenance Site (2017), BluMetric Environmental Inc.
- 2019 & 2020 Remediation Report, Checkpoint Former Highway Maintenance Camp, KBL Environmental, (2020)
- Annual Report, Checkpoint Landfarm, KBL Environmental (2018-2020)
- Final Report: Annual Monitoring Report – Checkpoint Landfarm, Stantec Architecture Ltd. (2021 – ongoing)
- Final Report: Checkpoint Highway Maintenance Camp Monitoring Report, Stantec Architecture Ltd. (2021 – ongoing)

Scope of Work

Care & Maintenance Monitoring

GNWT-ECC will continue the care and maintenance monitoring program of the landfarm site to remain in compliance with the conditions of the water licence. The care and maintenance and monitoring activities include:

- At the landfarm:
 - Groundwater sampling and monitoring at the existing groundwater monitoring well locations. Sampling shall occur in the spring/summer and fall of each year. For additional details on the methodology of the groundwater sampling plan, please refer to the Groundwater Monitoring and Surface Water Management Plan.
 - Surface water sampling of the retention pond and overflow cell. Sample results will be submitted to the regional Inspector for review and approval prior to the discharge of water to a designated area.
 - Inspection of the liner of the landfarm to observe the conditions and keep note of defects.
- At the Maintenance Camp:
 - Groundwater sampling and monitoring at existing groundwater monitoring wells onsite. Sampling event shall occur in the spring/summer of each year.
 - Continue surface water sampling program that was initiated in the fall of 2019.

Additional Assessments and Remediation Planning

Results of the initial remediation efforts noted that additional environmental investigations are required due to observations of additional buried debris and hydrocarbon impacted soil onsite. Additional assessments, including an Environmental Site Assessment (ESA) and Human Health Ecological Risk Assessments (HHERAs) shall be completed onsite prior to additional remediation work.

A future remediation program will be based on the results of the additional assessments and the development of a remedial options assessment (ROA) and a remedial action plan (RAP). GNWT-ECC will determine the next steps with regards to the completion of additional environmental assessments and future remediation activities.

Decommissioning Activities and Closure

Decommissioning of the landfarm and closure of the Maintenance Camp will be determined once additional assessments and remediation activities are completed. Further details on the plans to decommission and close the sites will be provided at a later date once further characterization of the site is completed.

The following equipment will be used on site:

Type and No.	Size	Proposed Use
Tracked Dozer	22 tonnes	Earthworks
Backhoe	25 tonnes	Excavation
Rubber Tire Loader	20 tonnes	Earthworks / Loading Trucks
Tandem Truck	12 tonnes	Transporting Soil
Tanker Truck	15 tonnes	Retention Pond Servicing
Water Pump	75 kg	Retention Pond Servicing
Drill	All	Earthworks and Well Installs
Excavator	25 tonnes	Excavation
Skid Steer (tracked and rubber tire)	4 tonnes	Moving and accessing small debris/earthworks in hard to access locations
Truck and Flatbed Trailer	14 tonnes	Transporting excavator to site
Flatbed truck or work truck with trailer	4 tonnes	Transporting skid steer to the site
End dumps	16 tonnes	Transporting soil
Tandems with trailers	18 tonnes	Transporting soil
Tri axles/tri quads	12 tonnes	Transporting soil

Re-fuelling activities will utilize a 500 L portable service tidy tank. Fuel will be transferred between tidy tank and equipment on-site. Fuel transfers will be minimized on site.