

<i>VEC</i>	<i>Activity</i>	<i>Description of Impact</i>
Water Quality	Landfill Development/ Landfill Closure	The migration of leachate from the new landfills and the Main Landfill has the potential to degrade water quality, both surface and ground water.
	Contaminated Soil Disposal / Hazardous Materials Removal	The removal of the contaminated soil and hazardous materials from the environment will reduce the risk of contamination of water (both surface and groundwater) quality.
	Removal and Transport of Hazardous Material, Fuel and Contaminated Soil	The potential exists for accidental release of hazardous materials (including contaminated soil). An accidental release could impact the local environment, including water quality.
	Site Grading/ Borrow Source Development	Erosion and sedimentation of waterbodies during grading and gravel extraction activities has the potential to impact water quality.
	Contractor Support	The operation of the construction camp will include treatment and disposal of waste. The potential exists for waste to impact the environment, specifically soil and water quality.
Terrain	Landfill Development	Excavation required for the development or closure the landfills has the potential to degrade permafrost.
	Landfill Closure / Site Debris Disposal	The development of the landfills and removal of site debris has the potential to disturb the existing terrain at the landfill locations.
	Site Regrading	Terrain and drainage to be improved as a result of grading disturbed areas.
	Borrow Source Development	The extraction of granular material will alter the terrain of the borrow area.
	Contractor Support	Movement of contractor's equipment and personnel around the site has the potential to disturb the tundra.
Surface Water	Landfill Development/ Landfill Closure	The development and closure of the landfills has the potential to disrupt drainage at the site.

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Surface Water	Site Regrading	Terrain and drainage to be improved as a result of grading disturbed areas.
	Borrow Source Development	The extraction of granular material will alter the terrain of the borrow area and has the potential to disturb drainage.
Noise – Terrestrial Animals	General Clean Up Activities	The use of heavy equipment in various aspects of the clean up including, landfill development and closure, demolition, grading and transportation, will increase noise levels, which has the potential to disturb wildlife. Marine transportation to and from the site has the potential to disturb marine mammals.
Terrestrial Animals	Contaminated Soil Disposal/ Hazardous Materials Removal	The removal of hazardous materials and contaminated soil from the environment reduces the risk of exposure of terrestrial animals.
Terrestrial Habitat	Landfill Development	Loss of habitat, specifically vegetation, as a result of the development of the new landfills in previously undisturbed areas.
	Facility Demolition	The existing facilities may be used by wildlife as habitat (ie. nests in structures). The demolition of these facilities has the potential to impact availability of habitat.
	Borrow Source Development	The extraction of granular material will require the disturbance of the ground has the potential to impact terrestrial habitat (including vegetation).
Aquatic habitat and animals	Landfill Closure	The proximity of the airstrip landfill to the marine environment has the potential to impact aquatic habitat due to sediment or hazardous materials entering the water. The potential would then exist for impacts on aquatic animals.
	Site Regrading/ Borrow Source Development	The extraction of granular material and grading adjacent to waterbodies (both fresh and marine) has the potential to impact aquatic habitat due to sediment entering the water. The potential would then exist for impacts on aquatic animals.
	Contaminated Soil Disposal/ Hazardous Materials Removal	The removal of contaminated soil and other hazardous materials from areas close to waterbodies, reduces the risk of exposure to aquatic animals.

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Aquatic habitat and animals	Removal and Transport of Hazardous Material, Fuel and Contaminated Soil	The excavation of contaminated from the airstrip and beach area has the potential to degrade the aquatic environment and impact aquatic animals due to close proximity to the marine environment.
	Contractor Support	The transportation to/from the site has the potential to disturb aquatic animals.
Health and Safety	Landfill Closure/ Site Debris Disposal/ Facility Demolition/ Removal and Transport of Hazardous Material, Fuel and Contaminated Soil	The excavation of potential hazardous materials from the landfills, the collection and disposal of potential hazardous debris, the removal of hazardous materials from the facilities and the general handling of hazardous materials has the potential to impact health and safety of workers.
	Contaminated Soil Disposal/ Hazardous Materials Removal	The removal of contaminated soil and other hazardous materials from the environment reduces the risk of exposure of people.
Archaeological	General Clean Up Activities	The presence and movement of people around the site and Broughton Island has the potential to disturb archaeological resources in the area.

Impact of the Environment on Project

The implementation of a clean up project, such as the clean up of FOX-5, in an Arctic environment brings with its unique logistical issues. The potential exists for delays in the clean up associated with bad weather. These delays may include work stoppage on-site or delays in the transportation to and from the site of personnel and supplies. Conditions related to the Arctic climate, such as ice and frozen ground may also delay clean up activities. Ice may delay marine transport to and from the site. Clean up activities which are best completed at maximum thaw may be delayed depending on seasonal climate changes.

Social, Cultural and Economic Effects

As part of the environmental assessment of the clean up of FOX-5, the interaction of the project components with socio-economic VECs was assessed. The following summarizes the potential impacts.

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Land Use	General Clean Up Activities	Clean up activities may disturb traditional land use, ie. hunting and fishing activities that would occur during the summer months.
Aesthetics	General Clean Up Activities	Generally, the clean up, specifically landfill closure, collection of site debris, site grading and demolition of old facilities will improve the aesthetics of the site by removing unsightly debris and restoring the site to a more natural state.
Economy	Contractor Support	The contractor will be required to have a minimum Inuit content in the workforce and subcontractors for the clean up. This will provide employment benefits and related economic benefits.
	General Clean Up Activities	Although, the NTI/DND Co-operation Agreement (economic provisions) have not been finalized, it is likely there will be requirements for training and employment that will benefit the local community.

The Department of National Defence (DND) and Nunavut Tunngavik Incorporated (NTI) are currently in negotiation for the economic provisions of the DND/NTI Agreement for the Clean Up and Restoration of the DEW Line Sites within the Nunavut Settlement Area. It is anticipated that this agreement will include a Minimum Inuit Content (MIC) for the clean up contract and requirements for training, specifically related to the clean up activities. Generally, the contracts for the clean up of DEW Line site include clauses requiring the contractor to maximize Inuit involvement. Inuit involvement in the clean up will include both employment and business (contracting) opportunities.

Typically, labour required for the clean up includes heavy equipment operators and general labourers, as well as environmental and engineering specialists. Other opportunities include cleaning and cooking staff and transportation.

Effects from the clean up will be felt primarily by the community of Qitiktarjuak. During the clean up there will likely be increased employment and business opportunities for members of the community. As the contract for the clean up of FOX-5 has not been awarded, the requirements of the community are not confirmed.

It is likely that a self-sufficient temporary construction camp will be established at the site to accommodate contractor and other personnel.