



April 11, 2023

Mr. Mark Cliffe-Phillips
Executive Director
Mackenzie Valley Environmental Impact Review Board
Via email: mcliffephillips@reviewboard.ca

Dear Mr. Mark Cliffe-Phillips:

Notice of Preliminary Screening Decision for Pesticide Application Permit – Nahanni Butte.

The Department of Environment and Climate Change (ECC) has completed the preliminary screening of the referenced application (Development) in accordance with its responsibilities under subsection 124(1) and subsection 125(1) of the *Mackenzie Valley Resource Management Act* (MVRMA).

ECC has determined that the proposed Development will not be a cause of public concern and will not have a significant adverse impact on the environment. Therefore, ECC has decided not to refer the proposed Development to environmental assessment. ECC's reasons for decision, as required by section 121 of the MVRMA, are attached for your reference.

Unless the Mackenzie Valley Environmental Impact Review Board, or another party with the authority to do so, refers the proposed Development to an environmental assessment, ECC will proceed with the next stages of issuing the Pesticide Application Permit to Nahanni Butte after the ten-day pause period has expired.

If you have any questions, please do not hesitate to contact Benjamin Elkin, Intern, Environmental Protection at benjamin.elkin@gov.nt.ca or (867) 767-9236 Ext. 53191.

Sincerely,

Erika Nyysönen
Acting Manager, Environmental Protection
Environment and Climate Change

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Attachment

- c. Jamie Chambers, Regional Superintendent, Dehcho Region
Environment and Climate Change

Shakita Jensen, IRMA Program Coordinator
Environment and Climate Change

Curtis Fediuk
Duka Environmental Services Ltd.

PRELIMINARY SCREENING REPORT FORM

PRELIMINARY SCREENER: Government of the Northwest Territories Environment and Climate Change Environmental Protection Section	PROPOSER NAME: Nahanni Butte Dene Band PROJECT NAME: Pesticide Application Permit
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PART 1:

Type of Development:
(check all that apply)

- New Development
- Amendment
- Renewal
- Authorization required
- Does not require an authorization

Project Summary

On behalf of Nahanni Butte Dene Band, Duka Environmental Services Ltd. will conduct mosquito control by larvicide means. For the larvicide application, they will be using a helicopter mounted granule dispensing bucket with motor operated disc gates to disperse the larvicide. For ground-based applications, they will be completed by hand broadcast or backpack applicator equipment. They will undertake this work throughout Nahanni Butte, NT. All work will be performed by trained and certified contractors.

Scope

Perform mosquito control using larvicides to suppress local mosquito populations and subsequent mosquito populations and related potential nuisance/annoyance. The presence of mosquitos can cause annoyance and possibly mosquito-borne diseases, so the suppression is for the benefit of residents, workers, and visitors. All mosquito control measures using larvicides will be in accordance with the *Pesticide Act* and Pesticide Regulations.

Type of ECC Authorization

(check the authorization that applies)

- Forest Management Agreements
- Timber Cutting Permit (>5000m³ burned wood or > 1100 m³ of other timber)
- Timber Cutting Licence
- Mill Licence
- Burning Permits (area > 25m³)

- Pesticide Application Permit
- Harvest of Wildlife for a Commercial Purpose
- Wildlife Business Licence

- Commercial Wildlife Licence
- Game Farm Licence
- Wildlife Management Permit
- General Wildlife Permit
- Licence to Capture Wildlife
- Licence to Capture Gyrfalcons for Commercial Purposes
- Licence to Import Live Wildlife
- Licence to Export Live Wildlife
- Licence to a Reindeer Owner for Grazing Allotment within a Reserve

- Protected Area Land Withdrawal
- Territorial Park

- Non-Application
- Other _____

Principal Activities

(check all that apply)

- | | | |
|--|---|--|
| <input type="checkbox"/> Construction | <input type="checkbox"/> Exploration | <input checked="" type="checkbox"/> Aerial |
| <input type="checkbox"/> Decommissioning | <input type="checkbox"/> Installation | <input type="checkbox"/> Industrial |
| <input type="checkbox"/> Abandonment | <input checked="" type="checkbox"/> Maintenance | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Expansion | <input type="checkbox"/> Harvesting | <input type="checkbox"/> Solid Waste |
| <input type="checkbox"/> Operation | <input type="checkbox"/> Camp | <input type="checkbox"/> Sewage |
| <input type="checkbox"/> Repair | <input type="checkbox"/> Scientific/ Research | <input type="checkbox"/> Water Intake |
| <input type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Municipal | <input type="checkbox"/> Quarry |
| <input checked="" type="checkbox"/> Other: <u>Mosquito control for Nahanni Butte</u> | | |

Principal Development Components:

- | | |
|--|---|
| <input type="checkbox"/> Abandonment/removal | <input type="checkbox"/> Disposal of hazardous waste |
| <input type="checkbox"/> Access Road | <input type="checkbox"/> Disposal of sewage |
| <input type="checkbox"/> Automobile, Aircraft or Vessel Movement | <input type="checkbox"/> Ditch Construction |
| <input type="checkbox"/> Blasting | <input type="checkbox"/> Drainage Alteration |
| <input type="checkbox"/> Borehole core sampling | <input type="checkbox"/> Drilling other than Geoscientific |
| <input type="checkbox"/> Building | <input type="checkbox"/> Ecological Surveys |
| <input type="checkbox"/> Bulk soil sampling | <input type="checkbox"/> Excavation |
| <input type="checkbox"/> gravel | <input type="checkbox"/> Explosive Storage |
| <input type="checkbox"/> hydrological testing | <input type="checkbox"/> Fuel Storage |
| <input type="checkbox"/> site restoration | <input type="checkbox"/> Geoscientific sampling |
| <input type="checkbox"/> fertilization | <input type="checkbox"/> Modification e.g., widening, straightening |
| <input type="checkbox"/> grubbing | <input type="checkbox"/> Sewage |
| <input type="checkbox"/> planting/seeding | <input type="checkbox"/> Slashing and removal of vegetation |
| <input type="checkbox"/> reforestation | <input type="checkbox"/> Soil Testing |
| <input type="checkbox"/> scarify | <input type="checkbox"/> Stream Crossing/Bridging |
| <input checked="" type="checkbox"/> spraying | <input type="checkbox"/> Waste management |

- | | |
|--|--|
| <input type="checkbox"/> recontouring | <input type="checkbox"/> Waste generation |
| <input type="checkbox"/> Burning | <input type="checkbox"/> Topsoil, Overburden or Soil |
| <input type="checkbox"/> Burying | <input type="checkbox"/> disposal |
| <input type="checkbox"/> Channeling | <input type="checkbox"/> fill |
| <input type="checkbox"/> Construction | <input type="checkbox"/> removal |
| <input type="checkbox"/> Cut and Fill | <input type="checkbox"/> storage |
| <input type="checkbox"/> Cutting of Trees or Removal of Vegetation | <input type="checkbox"/> Trenching |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Tunneling/Underground |
| <input type="checkbox"/> Abandonment/Removal | <input type="checkbox"/> Other (describe): |
| <input type="checkbox"/> Modification | |

PART 2:

NTS Topographic Map Sheet Numbers (*List all that apply*)

Nahanni Butte – 095G03

NTS Map Sheet #s:

Latitude / Longitude and UTM System:

Nahanni Butte 61.030946, -123.345150

Nearest Community and Water Body:

Located on the Designated Authority of Nahanni Butte

The South Nahanni River and the Liard River are within 5km. Several Smaller unnamed bodies of water are within 5km.

Land Status

- | | |
|--|---|
| <input type="checkbox"/> Free Hold / Private | <input type="checkbox"/> Federal Crown Land |
| <input checked="" type="checkbox"/> Commissioners Land | <input type="checkbox"/> Municipal Land |
| <input checked="" type="checkbox"/> Territorial Land | |

Transboundary Implications

- | | | |
|---|---|---------------------------------------|
| <input type="checkbox"/> British Columbia | <input type="checkbox"/> Alberta | <input type="checkbox"/> Saskatchewan |
| <input type="checkbox"/> Manitoba | <input type="checkbox"/> Nunavut | <input type="checkbox"/> Yukon |
| <input type="checkbox"/> Wood Buffalo National Park | <input type="checkbox"/> Inuvialuit Settlement Region | |

Type of Transboundary Implication:

- | | | |
|--|--------------------------------------|--|
| <input type="checkbox"/> Impact / Effect | <input type="checkbox"/> Development | <input type="checkbox"/> Public Concern: |
|--|--------------------------------------|--|

Describe: _____

PART 3:

PHYSICAL - CHEMICAL EFFECTS

IMPACT	MITIGATION	CONDITION
1. Ground Water		
<input type="checkbox"/> water table alteration		
<input type="checkbox"/> water quality changes		
<input type="checkbox"/> infiltration changes		
<input type="checkbox"/> other		
<input checked="" type="checkbox"/> N/A	No ground water impacts are expected. The larvicide does not contaminate untreated areas or transport the spores through the soil or water. The larvicide is a naturally occurring spore-forming bacterium which only targets larvae of mosquitoes, black flies, and related flies, not causing harm to non-target organism populations.	

IMPACT	MITIGATION	CONDITION
2. Surface Water		
<input type="checkbox"/> flow or level changes		
<input type="checkbox"/> water quality changes		
<input type="checkbox"/> water quantity changes		
<input type="checkbox"/> drainage pattern changes		
<input type="checkbox"/> temperature		
<input type="checkbox"/> wetland changes /loss		
<input checked="" type="checkbox"/> other:	Some surface water impacts are expected. The larvicide will run-off into the surface water in order to target the mosquitos. The larvicide is a naturally occurring spore-forming bacterium which only targets larvae of mosquitoes, black flies, and related flies, not causing harm to non-target organism populations. Risk of spray drift is mitigated by using proper spray techniques, low-risk larvicides, establishing and working within buffer zones in accordance with legislation, and only spraying in suitable weather conditions.	
<input type="checkbox"/> N/A		

IMPACT	MITIGATION	CONDITION
3. Noise		
<input type="checkbox"/> noise in/near water		
<input checked="" type="checkbox"/> other: noise increase	Some noise impacts are expected based on the proposed activities. Spraying of larvicides from a helicopter will last less than 8 days and will be localized above the spraying zones.	
<input type="checkbox"/> N/A		

IMPACT	MITIGATION	CONDITION
4. Land		
<input type="checkbox"/> geologic structure changes		
<input type="checkbox"/> soil contamination		
<input type="checkbox"/> buffer zone loss		
<input type="checkbox"/> soil compaction & settling		
<input type="checkbox"/> Destabilization/erosion		
<input type="checkbox"/> permafrost regime alteration		
<input checked="" type="checkbox"/> other:	Some land impacts are expected based on the proposed activities. The larvicide persists in the soil in the form of spores which biodegrade quickly from direct sunlight. Repeated application of the larvicide does not result in accumulation of the bacteria in the soil. The larvicide is a naturally occurring spore-forming bacterium which only targets larvae of mosquitoes, black flies, and related flies, not causing harm to non-target organism populations. Risk of spray drift is mitigated by using proper spray techniques, low-risk larvicides, establishing and working within buffer zones in accordance with legislation, and only spraying in suitable weather conditions.	
<input type="checkbox"/> N/A		

IMPACT	MITIGATION	CONDITION
5. Non-Renewable Resources		
<input type="checkbox"/> resource depletion		
<input type="checkbox"/> other:		
<input checked="" type="checkbox"/> N/A	No impacts are expected based on the proposed development or associated activities.	

IMPACT**MITIGATION****CONDITION****6. Air/Climate/Atmosphere** other

Some air impacts are expected based on the proposed development or associated activities. The larvicide is partially applied via helicopter using helicopter granule application equipment. Risk of spray drift is mitigated by using proper spray techniques, low-risk larvicides, establishing and working within buffer zones in accordance with legislation, and only spraying in suitable weather conditions. Public access will also be restricted during and after the spraying.

 N/A**BIOLOGICAL ENVIRONMENT****IMPACT****MITIGATION****CONDITION****7. Vegetation** species composition species introduction toxic/heavy accumulation other: N/A

No impacts are expected based on the proposed development or associated activities. The larvicide is a naturally occurring spore-forming bacterium which only targets larvae of mosquitoes, black flies, and related flies, not causing harm to non-target organism populations.

IMPACT**MITIGATION****CONDITION****8. Wildlife & Fish** effects on rare, threatened or endangered species fish population changes waterfowl population changes breeding disturbance population reduction species diversity change health changes

- behavioural changes
- habitat changes / effects
- game species effects
- toxins / heavy metals
- forestry changes
- agricultural changes
- other:
- N/A

No impacts are expected based on the proposed development or associated activities. The larvicide is a naturally occurring spore-forming bacterium which only targets larvae of mosquitoes, black flies, and related flies, not causing harm to non-target organism populations.

INTERACTING ENVIRONMENT

IMPACT

MITIGATION

CONDITION

9. Habitat & Communities

- predator-prey
- wildlife habitat/ecosystem
- composition changes
- keystone/endangered species
- wildlife corridor/buffer zone
- other:
- N/A

No impacts are expected based on the proposed development or associated activities.

IMPACT

MITIGATION

CONDITION

10. Social and Economic

- planning / zoning changes or conflicts
- increase in urban facilities or services use
- rental house
- airport operations / capacity changes
- human health hazard
- impair the recreational use of water or aesthetic quality
- affect water use for other purposes
- affect other land use operations
- quality of life changes
- public concern
- other:
- N/A

A decrease in mosquito population is expected based on the proposed development or associated activities. The permit holder will be required to post signs warning workers and the public that pesticide spraying is taking place in the area. Public access will also be restricted during and after the spraying.

IMPACT

MITIGATION

CONDITION

11. Cultural and Heritage

- affects to historic property
- increased economic pressure on historic properties
- change to or loss of historic resources
- change to or loss of archaeological resources
- increased pressure on archaeological sites

change to or loss of aesthetically important site

affects to aboriginal lifestyle

other:

N/A

No impacts are expected based on the proposed development or associated activities.

PART 4:

PRELIMINARY SCREENER / Distribution List

Grand Chief Herb Norwegian	Dehcho First Nations
Chief Steve Vital	Nahanni Butte Dene Band
Shelagh Montgomery Executive Director	Mackenzie Valley Land and Water Board
Mark Cliffe-Phillips Executive Director	Mackenzie Valley Environmental Impact Review Board
Jamie Chambers Superintendent	Environment and Climate Change
Shane Seaman Assistant Fire Marshal	Municipal and Community Affairs
Rick Walbourne Manager, Water Resources	Environment and Climate Change
Maggie Collins Manager, Communications	Workers' Safety and Compensation Commission
Shakita Jensen IRMA Program Coordinator	Environment and Climate Change
Central Mail	Department of Fisheries and Oceans Canada
Central Email	Environment and Climate Change Canada

Part 5:

PRELIMINARY SCREENING COMMENTS

Table 1. Preliminary Screening comments for the proposed Pesticide Application Permit

Organization	Impact/Concern	Mitigation
No concerns expressed to ECC.		

REASONS FOR DECISION

(LIST REASONS AND SUPPORTING RATIONALE FOR PRELIMINARY SCREENING DECISION)

DECISION:

The Department of Environment and Climate Change (ECC) is satisfied that the preliminary screening of application for a Pesticide Application Permit by the Nahanni Butte Dene Band for mosquito control in Nahanni Butte in the Dehcho Region has been completed in accordance with Section 125 of the *Mackenzie Valley Resource Management Act*.

ECC is satisfied that a reasonable period of notice (21 days) was given to Communities and Indigenous Governments affected by the application as required by Subsection 63(2) of the *MVRMA* so that they could provide comments to ECC.

Having reviewed all relevant information in the application, including the submissions of the Applicant, and the absence of any written comments, ECC has decided that in its opinion that:

- there is no likelihood that the proposed development might have a significant adverse impact on the environment; and
- there is no likelihood that the proposed development might be a cause of public concern.

ECC is also of the opinion that the application can proceed through the regulatory process and that any impacts of the development on the environment can be mitigated through the imposition of the terms and conditions in the Pesticide Application Permit.

As a result, ECC, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope and intent of the *Mackenzie Valley Resource Management Act* and the Mackenzie Valley Land Use Regulations has decided that this Pesticide Application Permit be issued subject to the terms and conditions contained therein.

<input checked="" type="checkbox"/>	PRELIMINARY SCREENING DECISION
<input type="checkbox"/>	Outside Local Government Boundaries
<input type="checkbox"/>	The development proposal might have a significant adverse impact on the environment, <i>refer it to the Mackenzie Valley Environmental Impact Review Board (Review Board).</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the Review Board.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	Wholly within Local Government Boundaries
<input type="checkbox"/>	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the Review Board.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the Review Board.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

Department of Environment and Climate Change

Signatures

Erha Nymanen

