

**2019**

Lower Nicola Indian  
Band

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Lands Manger

# **GUIDELINES FOR UNCONSOLIDATED NON- METALLIC SUBSTANCES ON LNIB LANDS**



**LOWER NICOLA  
INDIAN BAND**

June 25, 2019

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## REVIEW AND REVISIONS

Change #	Date	Key Changes	Reviewer
1	March 2018	Original issue (draft)	Stephen Jimmie
2	March 2018	Written efficiency improvements and comments	Michael Nienhuis, Miller Thomson LLP
3	June 11, 2018	No Changes	LMAC
4	August 9, 2018	Signature Block for ED and LM	Stephen Jimmie
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7	June 25, 2019	No changes, ratified by Resolution	Chief and Council
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## **Preamble**

The intention of this guideline is to improve, accelerate, clarify and harmonise with provincial regimes the process of issuing permits and leases for unconsolidated non-metallic substances projects on Lower Nicola Indian Band (“LNIB”) lands to maximize potential economic development and environmental benefits for LNIB.

## **Section 1 Introduction**

This document presents a set of guidelines to support the administration and management of unconsolidated non-metallic substances on LNIB lands. It provides the Lands Department with information and guidance related to this type of activity. This guideline is also useful to resource developers in preparing their permit/lease application.

The Lands Department is responsible for the administration and management of non-renewable mineral resources on LNIB lands in accordance with the *Lower Nicola Indian Band Land Code*. The Lands Department provides guidance on applications for disposals and operational issues relating to mineral disposition on LNIB land.

### ***Definition***

"Unconsolidated non-metallic substances", also referred to as “UNMS” in this document, are defined as minerals located at or near the surface which may be removed by an open excavation that does not involve quarrying of hard rock or blasting. It includes sand, gravel, stone, fill material, clay used as fill material, earth, ash, marl, top soil and peat.

The mineral resources not included in this definition are:

- a. unconsolidated minerals not defined above;
- b. minerals obtained from metallic placer deposits; and,
- c. oil, gas, bitumen, petroliferous minerals, coal, lignite, metallic minerals, metallic placer deposits and all other minerals included in and administered in accordance with the *Indian Mining Regulations* or the *Indian Oil and Gas Act and Regulations*.

UNMS are considered a capital asset and represent economic development opportunities for LNIB.

Several of these resources are used extensively on roads in asphalt and as a road base, and as components of concrete in the building and housing industry. Parties interested in accessing UNMS must do so by applying for a permit or lease for removal of UNMS from LNIB lands in accordance with the *Lower Nicola Indian Band Land Code* and to provide fair equitable compensation to LNIB in the form of rental fees and/or royalty monies.

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## Section 2 Deposit Size

UNMS deposits, commonly composed of sand and gravel material, can be measured by volume (e.g., in cubic metres, m<sup>3</sup>) or by weight (e.g., in metric tonnes, t). Deposit size should be reported by volume when possible, for consistency, and can be estimated by multiplying its length, width and depth. The volume can vary in size from a few thousand cubic metres to several million cubic metres. To be of any commercial value however, the volume in the deposit would normally exceed 1,000,000 m<sup>3</sup>.

The following guide for development consideration uses high quality sand and gravel as an example and assumes nearby market accessibility. In order to better visualize the surface footprint of a sand and gravel operation, deposit volumes can be used to estimate the approximate affected surface area (indicated in hectares, below).

- Under 10,000 m<sup>3</sup> or an area under 1 ha: These small deposits would be useful for a community's road maintenance and local use.
- 10,000 to 100,000 m<sup>3</sup> or an area of 1 ha to 5 ha: A deposit of this size is sufficient for approximately 10 kilometres of basic road construction as well as routine road improvement and maintenance for several years. This size of deposit is however considered to be insufficiently large to sustain a viable commercial development, except perhaps on a one-time basis.
- 100,000 to 1,000,000 m<sup>3</sup> or an area of 5 ha to 30 ha: This size deposit would provide substantial sand and gravel for a major road construction project, a long-term source for road improvement and maintenance, or a small commercial operation with an estimated life span of up to 10 years.
- More than 1,000,000 m<sup>3</sup> or an area greater than 30 ha: This size deposit could possibly sustain a major commercial development with an estimated average annual extraction of 50,000 to 250,000 m<sup>3</sup> and an estimated lifespan of over 10 years.

**Table 1. Deposit size classification and potential use (sand and gravel).**

Volume of deposit (m <sup>3</sup> )	Suggested uses	Life span (years)	Scale of development project	Affected area (hectares)
1,000 – 10,000	LNIB Use	1 – 3	Small road maintenance	<1
10,000 – 100,000	LNIB or commercial use	1 – 5	10 km of basic road construction	1 – 5
100,000 – 1,000,000	Commercial use	5 – 10	Major road construction project, small commercial	5 – 30
1,000,000+	Commercial use	10+	Major commercial development	>30

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### **Section 3 Roles and Responsibilities**

The major participants in on-reserve UNMS development are the proponent, the permittee/lessee, and LNIB. In some cases, the proponent and permittee/lessee may in fact be the same person or company. In other cases, the proponent and permittee/lessee may be separate parties.

#### ***Proponent***

The proponent's responsibilities include, but are not limited to:

- exploration for the UNMS (demonstrating that the amount, type, and quality of material desired is present);
- verifying that proposed project complies with LNIB's zoning and land use laws for that area;
- providing a survey plan (legal description), sketch and/or a textual description of the permit/lease area, which also identifies roads to be used for access;
- providing LNIB with the documentation needed in support of the application such as: project description, operational and restoration plan, environmental information for the proposed activities in the subject area;
- obtaining and complying with all required regulatory approvals and the right to extract and sell the resource;
- addressing and resolving any outstanding concerns raised by an environmental assessment with respect to the proposed project;
- financing the project;
- complying with all applicable legislation (including LNIB, provincial and federal);
- developing and operating the pit or quarry; and,
- finding markets.

#### ***Permittee/Lessee***

The permittee/lessee's responsibilities include, but are not limited to:

- applying for and obtaining all required permits and licences for the project;
- providing a geotechnical report including topographical and geological surveys of the permit/lease area prior to the removal of any material;
- addressing and resolving any information gaps and/or outstanding concerns raised by an environmental assessment with respect to the proposed project;
- compliance with terms and conditions of permit/lease, and posting securities for performance of restoration obligations;
- submitting a statutory declaration certifying the total volume of material removed from the permit/lease area and royalty payments reconciliation;
- complying with all applicable legislation (including LNIB, provincial and federal);

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- finding markets for the UNMS;
  - developing and operating the pit or quarry;
  - arranging for a professional engineer, a geologist or a person with requisite experience & qualifications, to supervise project activities for compliance with permit/lease; and,
  - restoring the site to the conditions specified by the permit/lease.

### ***Lands Management Advisory Committee***

The LMAC is responsible for:

- assisting the Lands Department and Council with any matter related to the granting of a licence, permit, easement or right-of-way and may perform duties and functions as directed by either Council or the Lands Department.
- responding to all licence, permit, easement and right-of-way related requests from the Lands Department or Council, and where necessary to consult with members on licence, permit, easement and right-of-way related issues.
- making recommendations to the Lands Department and Council on matters related to the issuance of a licence, permit, easement or right-of-way over LNIB community lands.

### ***Lands Department***

The Lands Department is responsible for:

- ensuring all requirements under Policy 5-1: Leases Over Community Land or Policy 6-1: Licences, Permits, Easements and Right-of-Ways Over LNIB Community Lands are complied with during the assessment of applications and the negotiation, drafting and execution of the lease or permit;
- in accordance with Policy 10-1: Monitoring and 10-2: Enforcement, the monitoring and enforcement of the lease or permit over LNIB community lands; and
- maintaining a file in the Lands Department for the lease or permit over LNIB community lands.
- identifying the terms and conditions applicable to a particular permit or lease, including the requirements for the applicable Operational and Restoration Plan;
- ensuring all relevant project information is available to identify the appropriate level of environmental review, taking into account mitigation measures and the likelihood of the project to cause significant adverse environmental effects;
- ensuring the transaction terms and conditions represent favourably and fairly the interests of LNIB;
- if the Lands Department is aware of a breach of the permit/lease, seeking legal guidance, where applicable, as to remedies or options available in the permit/lease or at law for responding to the said breach, such as sending a demand letter, forfeiture of security, initiating litigation, etc.



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### **Section 3 Non-Metallic Mineral Disposition**

The exploration, extraction or mining of UNMS from reserve lands and commission of them to some other use is referred to as "disposition". In order to initiate development there are two disposition options: a permit or a lease. Refer to Policy 6-1 Licences, Permits, Easements and Right-of-Way Policy for rules and processes which apply to obtaining a permit or lease.

Permits and leases for the disposition of UNMS can be issued under various circumstances depending, generally, on the size of the deposit and the quantity of the material to be extracted. As a general rule, permits are issued for projects of a shorter duration for smaller quantities of UNMS. On the other hand, a lease is generally required where the operations are to take place over longer periods of time; where there are large deposits and quantities to be extracted and the proponent is seeking exclusive access to the land, for example, where the construction of permanent buildings is contemplated.

### **Section 5 Administration and Management**

The main objective of this guideline is to provide LNIB with the opportunity to obtain optimal economic and socially beneficial returns as a direct result of the extraction of UNMS with minimal disruption to the lifestyles of LNIB members and the environment.

#### ***Technical Evaluation***

The proponent shall provide a geotechnical evaluation report to determine the viability and long-term sustainability of UNMS development projects on LNIB land at the earliest possible stage of the process. This evaluation should be in accordance with the long-term land use and resource planning in order to prevent or impede resource depletion as well as develop a mechanism to evaluate the environmental and social impacts that may result from this type of activity over a prolonged period of time. This also provides background data for more accurate assessments of potential future site development of minerals disposition on LNIB land.

This evaluation will serve to inform the Lands Department and Council the extent of mineral resources available for commercial development and eventual sale in excess of that amount set aside for reserve use and development. Recommendations can then be made by the Lands Department to the Council regarding the safe commercially sustainable level of extraction at a fair royalty rate, an accurate description of the method(s) of extraction monitoring and the development of an operational and restoration plan the company will be providing.

#### ***Operations and Restoration***

Each application for a permit/lease for disposal of UNMS must include an operational and restoration plan by following the Operational and Restoration Plan – Terms of Reference (see Appendix A).

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Once agreed upon by the Lands Department and the proponent, the plan will be appended to the permit/lease as a schedule. The permittee's/lessee's obligations are clearly specified and criteria are established for assessing compliance with the terms of the permit/lease.

Restoration of land(s) from which UNMS have been extracted may be considered separately from redevelopment. A particular source of substances might be used for many years and may be developed by more than one permittee/lessee over the course of the deposit's life span, though only by one party at a given time. In such cases, each permittee/lessee shall be required to use and restore the area in such a manner as to minimize the defacement of the land in accordance with the restoration plan and the potential cost of restoration for future use.

Removal of UNMS may cause damage or defacement, physical or otherwise, to the permit/lease area and may include such things as:

- damage to land that is deemed irreparable;
- temporary damage to land that could have been corrected during its excavation;
- a complete loss of development potential of the permit area alone or as an integral part of a larger land block;
- a depreciation in the monetary value of adjoining lands, or in other terms; and/or,
- damage to ground and surface water.

Consequently, it should be noted that the occurrence of any of the points listed above will vastly depend on the methods and extent of extraction. Consideration must therefore be given to land-use plans for the permit/lease area and the surrounding lands before implementing the technical recommendations.

Removal operations should be undertaken in such ways as not to create unsafe conditions within the permit area and are the sole responsibility of the permittee/lessee. As a direct result of such responsibilities, the permittee/lessee is obliged to maintain sufficient insurance to protect LNIB from any and all litigation that may be pursued by party whose property has been damaged or who suffered a personal injury by an unauthorized entry into the permit/lease area. Concurrently, LNIB will not assume any responsibility for any damage or injury complaints suffered within the permit/lease area not covered by the permittee/lessee agreement.

The permittee/lessee will conduct operations in compliance with all provincial, industry and/or local standards unless specifically stated otherwise in the permit or lease. Permittees/lessees will accept sole responsibility and liability for any damages and inconveniences caused to surrounding land owners by any activities conducted within the permit/lease area, whether authorized or not.

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### ***Surface Rent***

Surface rents are paid to LNIB as compensation for the use of the land's surface area and are included in permit and/or lease agreements to cover the area required for on-reserve operations. All rents must be negotiated in good faith based on the most current market value of the utilized lands and the coverage area required for the operation.

### ***Royalties, Bonuses and Royalty Pre-Payments***

All royalties must be negotiated and based on the current local market value and provide for future redevelopment cost. Royalties are calculated by weight or volume of UNMS removed and sold off reserve. Royalties can be paid at various intervals and must be accompanied by a statement of account showing the amount in weight or volume of minerals removed from the reserve within the specified time period. An annual statutory declaration by the permittee/lessee showing the total amount removed in previous years is also required as royalties result from a one-time sale of a resource (capital asset).

A bonus payment or royalty pre-payment may be required in certain circumstances. These payments are at times paid to LNIB in the form of one or more lump sum payments prior to signing for a permit/lease for a large scale UNMS development, or on an agreed schedule.

Occasionally, it is possible for a permittee/lessee to enter into a permit/lease agreement for UNMS extraction from LNIB's pit and subsequently have no minerals removed. To avoid this, a clause may be inserted in the agreement, requiring the operator to financially compensate LNIB with a monthly or annual minimum royalty payment regardless of the amount of material removed and processed from the extraction site. The minimal royalties dispensed to LNIB will then be deducted from the royalties paid for the actual production.

There are other ways to derive maximized benefits from a permit/lease. LNIB may choose to receive a volume of processed aggregate or road improvements or some other form of trade as payment in return for their UNMS.

### ***Security Deposits***

Security deposits in the form of letters of credit, cash or bonds payable to LNIB must be provided by the permittee/lessee to ensure there is money for site conservation and reclamation. The terms of letters of credit and bonds must be approved by the Council prior to the ratification of the permit/lease.

These security deposits would be refundable upon evidence of satisfactory restoration of the affected lands as determined by the responsible officer in compliance with the permit/lease. Consequently, in the event of non-compliance with the terms and conditions of the permit/lease, the permittee/lessee would be liable, and the security deposit used to pay for works required.

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### ***Liability Insurance***

The permittee/lessee must agree to indemnify and protect LNIB against all possible costs incurred from claims that may arise from the permittee's/lessee's activities on LNIB land and breach of the permit/lease and must maintain liability insurance naming LNIB as an additional insured.

### ***Environmental Considerations***

Prior to a project being carried out, a determination must be made with respect to whether the project is likely to cause significant adverse environmental effects. The Lands Department shall identify those effects and include specific clauses in the permit/lease terms and conditions to ensure that all aspects related to environmental protection have been addressed.

The prospective permittee/lessee is required to submit environmental information (e.g. submission of a Project Description) to the Lands Department. The Lands Department assesses and determines if the proposed project requires an environmental assessment.

Detrimental effects that may result from the disposition of UNMS include but are not limited to:

- noise;
- dust;
- heavy traffic;
- damage to community roads from heavy trucks;
- trespassers and theft of UNMS because of improved road access to the permit/lease area;
- risk of injury to adults and children, wildlife and livestock that may be caused by the pit operation;
- polluting of ground water and surface water during pit operations (the risk increases if refuse is allowed to be dumped into the pit);
- risk of land damage because of poor erosion control during operations;
- destruction of trees, vegetation and wildlife habitat;
- changes in land use (hunting, agriculture, etc);
- disruptions to other forms of land use (traditional land use, for example, trap lines);
- decrease in the water table and drinking water supply;
- loss of flora and/or fauna, including species at risk, due to waste, pollutants, and/or fuel storage and handling; and,
- deterioration in the attractiveness of the pit's surroundings.

Many of these complications can be avoided or their effects considerably diminished by utilising good project planning, appropriate operational procedures, and by performing proper site restoration. For instance, a fence surrounding the pit and a gate at the perimeter can considerably reduce safety hazards. Noise problems can be managed by scheduling work for particular periods

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of the day. A suitable after-use for the area should be identified during the early stages of planning an operation, and restoration should be aimed at preparing for that after-use.

In environmental assessments of UNMS pits, the developer must consider the following effects of excavation of the projects on:

- ground and surface water;
- noise levels;
- erosion and stability of slopes;
- land-use conflicts;
- unique physical features;
- permafrost;
- terrestrial and aquatic wildlife and habitats;
- aesthetics of the area;
- health and safety;
- local economy, employment, quality of life;
- social aspects;
- archaeological sites; and,
- traffic from trucks and heavy equipment.

LNIB measures environmental impacts based on:

- magnitude, frequency, duration, and likelihood of the effect;
- the nature of impact (for example, direct or indirect);
- the scope of impact (for example, local or regional);
- the direction of impact (for example, positive or negative);
- cumulative or residual effects; and,
- available technology that could minimize environmental effects.

The proponent's Operational and Restoration Plan describes the potential impact of an operation on a LNIB land and its surrounding lands. The operation portion of the plan details the proposed site(s) and extraction methods, including:

- stages of excavation and backfilling;
- stockpiling of topsoil;
- height of the working faces and any provisions for access (security and public safety);
- drainage;
- storage;
- dust abatement;
- noise;
- haul routes; and,

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- erosion protection.

The restoration portion includes plans for:

- identifying suitable after-uses for the site;
- slope reduction;
- reapplication of topsoil;
- clean-up of the site;
- backfilling of the pit; and,
- erosion and drainage control.

All environmental concerns must be properly identified and addressed in the Operational and Restoration Plan.

### ***Monitoring and Enforcement***

At stated intervals or upon permit/lease expiration, the permittee/lessee will provide a statutory declaration detailing the volume of minerals removed, royalties paid or details as set out in the permit/lease.

Inspections of the mineral project are to be conducted by representatives of LNIB. If conditions of the excavation site and restoration process are not deemed to adequately satisfy the set requirements of the agreement, the permittee/lessee will be served notice of said breach of the agreement and directed to cease all operations until a resolution is provided to the satisfaction of the Lands Department.

The security deposit will be returned only after satisfactory restoration of the affected lands in accordance with the Operational and Restoration Plan has been completed. If restoration is deemed unsatisfactory upon final inspection, the security deposit may be withheld until the permittee/lessee completes the restoration, or LNIB may instead elect to realize on the security and complete such restoration itself.

### ***Registration***

The fully executed permit or lease must be registered in the First Nation Lands Registry System by the Lands Department.

### ***LNIB Employment Opportunities***

UNMS development may also provide employment opportunities for LNIB members in business, management, geology, engineering and mechanical and related fields. Heavy equipment operators and drivers will also be in demand. Employment positions need to reflect the current rate being paid for off-reserve employees, and if required proper training should be provided.

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## **Section 6 Reporting**

The Lands Department shall, upon request from Council, report annually the quantity (by volume, in cubic metres) of UNMS extracted and associated financial details including royalties and rental fees collected for each permit/lease active during the previous fiscal year. These data are to be collected for statistical purposes. This request will occur following the close of each fiscal year.

## **Section 7 Financial Details**

It is the responsibility of the Lands Department to ensure that any proceeds resulting from the disposition of a non-renewable resource such as UNMS are accounted for in the Lands Department Accounts.

The permittee/lessee shall pay all taxes, levies, etc., that may be payable to any authority as a result of the use and occupation of LNIB land and extraction of UNMS on LNIB land.

This policy is supported by Council and approved by Band Council Resolution on the 25<sup>th</sup> day of June, 2019.

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## **Appendix A: Operational and Restoration Plan**

### **Terms of Reference**

The prospective permit/lease holder is obligated to submit to the Lands Department a detailed Operational and Restoration Plan outlining its intended operations on the affected lands. The following outline is intended to serve as a guide to assist in the preparation of the Operational and Restoration Plan. The prospective permit/lease holder should address only those items which relate to its particular UNMS pit operations and should use photographs, plans, maps and charts where possible. LNIB recommends that the Operational and Restoration Plan be prepared by a Registered Professional Geoscientist or Engineer.

### **Part A – Operational Plan Component**

#### ***Pit Planning***

1. Pit status and location:
  - a. indicate whether a new or existing pit will be used
  - b. describe the location of the pit
  - c. provide a legal survey plan, legal description and textual description of the permit/lease area
  - d. indicate owner of the permit/lease area
  - e. indicate applicable LNIB zoning and whether subdivision of the permit/lease area will be required and has been initiated
  
2. Deposit information (append geotechnical data):
  - a. indicate the type, quality, quantity, thickness, uniformity, etc. of the deposit material(s)
  - b. indicate depth to water table, presence of water seepage and springs
  - c. provide an estimate of the size and outline of the extent of the deposit
  - d. indicate the likelihood of any zones or areas within the deposit that may not be suitable for extraction (e.g., boulders, clay pockets)
  
3. Quality and quantity of aggregate produced:
  - a. indicate the type and quantity of each type of aggregate products to be produced (e.g. concrete aggregate, road base and sub-base, general fill, washed stone, etc.) and provide an estimate of reject material percentage
  - b. estimate the volume/tonnage of aggregate material(s) to be produced on an annual, seasonal, or monthly basis
  - c. the weight of each aggregate product to be produced is to be determined by the company and can be presented in tonnes or in density units (tonnes per cubic metre)



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4. Identification of sensitive areas, which can include but are not limited to:
    - a. archaeological sites (LNIB input required)
    - b. survey monuments
    - c. restricted areas (LNIB will identify areas)
    - d. set back from water bodies, streams, etc.
    - e. utility right of ways (e.g. natural gas, pipelines, power lines, telephone lines, etc.)
    - f. residential areas
    - g. churches, graveyards, etc.
    - h. urbanized areas
    - i. lakes, rivers, streams, fisheries, etc.
    - j. unique flora and/or fauna
    - k. domestic and community water supplies
  
  5. Schedule of pit operation:
    - a. provide an estimate of the expected life of the deposit
    - b. indicate whether the project will operate on a year-round or seasonal basis
    - c. designate peak hauling periods and provide information on the number, type, schedule, etc., of trucks and/or other vehicles
    - d. provide a proposed work schedule indicating the hours and days of operation

### ***Pit Design***

1. General pit plan layout, including the location and approximate dimensions of:
  - a. extraction/working areas
  - b. UNMS processing area
  - c. mineral products storage area
  - d. reject material storage area
  - e. holding and settling ponds
  - f. maintenance and office area
  - g. weigh scale
  - h. water usage source
  - i. reserve boundary, set back
  - j. topsoil and overburden storage
  - k. pit perimeter fencing
  
2. Visual screening of operation:
  - a. indicate whether a buffer zone is necessary to prevent contamination of nearby streams or water bodies
  - b. describe the area's natural vegetation
  - c. indicate if berms (topsoil or overburden) are to be used to direct runoff water

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- d. describe visual screen fencing
3. Site access and transportation haul roads:
    - a. indicate if new or existing roads are to be used
    - b. indicate who is responsible for road maintenance
    - c. describe entrance and exit locations
    - d. address public safety concerns (e.g. speed restrictions, traffic signs, etc.)
    - e. note weight restrictions and any specific restriction periods
    - f. indicate stream crossings (e.g. culverts, bridges, etc.)
  4. Groundwater and surface water management:
    - a. provide an estimate of the volume of water required for the project
    - b. indicate the type of source to be used (e.g. surface, well, etc.) and provide water license particulars
    - c. provide a plan for discharge (e.g. establishment of settling ponds, recycling of water, etc.)

### ***Pit Operation***

1. Site preparation:
  - a. estimate the area to be cleared in acres or hectares
  - b. indicate brush clearing/slash removal method (e.g. burning, windrow)
  - c. provide a plan for the removal and storage of top soil/overburden
2. Method of excavation:
  - a. indicate the depth of pit and slope of pit walls (3H:1V)
  - b. propose a plan detailing excavation method (drilling, blasting, dredging, etc.), sequence of operation, and plan of extraction
  - c. describe the type of equipment used in as well as provide a description of the screening and crushing operation
3. Drainage and erosion control
4. Dust, noise and light control
5. Maintenance yard concerns:
  - a. indicate plans for equipment storage and maintenance, oil disposal, and proper fuel storage (e.g. underground storage tanks) to prevent leaks and spills
6. Equipment in pit:
  - a. describe the types of equipment to be used (e.g. loaders, etc.)

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- b. describe the types of processing plants to be involved (e.g. asphalt, screening, crushing, etc.)
7. Security/Safety concerns:
- a. the formation of a safety committee
  - b. restricted access to the site during operations to personnel who have received hazard awareness training for the site
  - c. consult the federal and provincial occupational health and safety acts, regulations and guidelines
  - d. consult the federal and provincial workers compensation acts, regulations and guidelines
  - e. consider and respect operation and maintenance manuals rules for all equipment utilized
  - f. address potential need for danger warning signs (e.g. steep slopes, dangerous equipment, etc.)
  - g. propose methods of theft and vandalism prevention

## **Part B – Restoration Plan Component**

The proponent is obligated to restore and beautify LNIB lands disturbed by mining development. The restoration plan component presents a detailed description of how the company will meet this obligation. The proponent must address all potential or anticipated environmental implications that may arise from excavation activities on reserve land as well as indicate the remedial measures it intends to implement to lessen or correct the impact on these lands.

### ***Compliance with Applicable Laws***

1. The proponent must abide by, and obtain all authorizations and approvals required under, all applicable laws and regulations relating to:
  - a. environmental matters
  - b. fisheries
  - c. mining regulations
  - d. waste management
  - e. any other aspect of the proposed project

### ***Site Restoration***

1. Progressive reclamation and/or restoration strategy:
  - a. propose a strategy on both a day to day and seasonal basis
2. Final reclamation and/or restoration strategy:
  - a. Methods of restoration

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- i. describe equipment used and other relevant information
  - ii. clean up/removal of:
    - stockpiled or processed aggregate
    - rejected material or tailings
    - garbage and debris
    - buildings
    - machinery and equipment
  - iii. drainage and erosion control:
    - provide details on both a temporary and a final/post-development basis
  - iv. recontouring:
    - describe the reshaping of pit, including final sloping of abandoned pit, working faces (3H:1V minimum), and temporary sloping of working pit face (3H:1V)
  - v. topsoil and overburden replacement
  - vi. revegetation:
    - indicate whether this will be accomplished naturally or through seeding and/or tree planting

### ***Monitoring and Maintenance***

Proponent must provide a long-term monitoring plan including a suggested timetable.

Upon expiry or termination of the permit/lease, a site inspection will be performed and if the restoration and/or site conditions are deemed unacceptable, the operator will be required to provide corrective action to remedy the situation.

### **Part C – LNIB Economic Opportunities**

1. Identification of employment opportunities, including:
  - a. type and number of jobs to be created, indicating those available to LNIB members vs. non-Aboriginals
  - b. skill development
  - c. gross salaries to be paid
2. Identification of business opportunities, including:
  - a. type of service contracts available

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## Appendix B: Glossary

**aggregate:** a mass of rock particles, mineral grains or a mixture of both.

**Band:** as defined in the Indian Act.

**berm:** a mound or wall, usually of earth, used to prevent substances from entering an area.

**Certificate of Possession (CP):** a Certificate of Possession issued by:

- a. the Minister, pursuant to subsection 20(2) of the Indian Act, to a member who is lawfully in possession of LNIB lands as evidence of that members right to possession of the land described in the Certificate of Possession; or
- b. Council, pursuant to section 20.6 of the *Lower Nicola Indian Band Land Code*, to a member who is lawfully in possession of LNIB lands as evidence of that members right to possession of the land described in the Certificate of Possession;

**consolidated non-metallic substances:** materials that have been metamorphosed or cemented together, like limestone and sandstone. Groundwater flows through fracture networks in these consolidated sediments. This definition includes potash.

**disposition:** the exploration, extraction or mining of minerals from reserve lands and commission of them to some other use.

**encumbrance:** any existing registered or unregistered instrument on the parcel that may or may not conflict with the proposed permit/lease.

**environmental assessment:**

- a. if LNIB has enacted its own environmental assessment law, an environmental assessment that is conducted in accordance with that environmental assessment law; or
- b. if LNIB has not enacted its own environmental assessment law, an environmental assessment that is conducted either:
  - i. by Canada, or
  - ii. by LNIB in accordance with an environmental review policy that is passed by Council;

**instrument:** a formal legal document.

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**Lands Management Advisory Committee and LMAC:** the Lands Management Advisory Committee as set out in Part 6 of the *Lower Nicola Indian Band Land Code*.

**lease:** an instrument that authorizes the disposition of UNMS granting exclusive use of land during a specified period in exchange for a benefit.

**lessee:** the holder of a lease.

**locatee:** means a Band member in lawful possession of LNIB land. Also known as a CP Holder.

**marl:** a term loosely applied to a variety of materials, most of which occur as loose, earthy deposits consisting mainly of a mixture of clay and calcium carbonate. Usually gray, marl can be used as a fertilizer for acid soils deficient in lime.

**mitigation measures:** measures for the elimination, reduction or control of the adverse environmental effects of a designated project, and includes restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means.

**monitoring:** the observance of compliance with the permit/lease document.

**Operational and Restoration Plan:** a plan that describes the operational procedures for taking, removing, and disposing of UNMS, their potential impact on the environment, reserve and its surrounding lands indicating remedial measures that the company intends to implement.

**overburden:** material of any nature, including loose soil, sand and gravel, that lies above bedrock or a deposit.

**permit:** an instrument that authorizes the disposition of UNMS and grants non-exclusive possession rights to the land.

**permittee:** the holder of a permit.

**pit:** a site where granular material, not including consolidated rock, is being or has been taken.

**processing:** the screening, blasting, crushing, draining or any other preparation of excavated material before stockpiling or removal.

**proponent:** in terms of UNMS activity, the proponent is typically the entity which explores, obtains regulatory approvals and the right to extract and sell the UNMS, finances the project, develops and operates the pit or quarry, finds markets, and rehabilitates the site. Sometimes referred to as the project developer.

**recontouring:** the process of reshaping a disturbed land surface to fit the form of the surrounding land.

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**restoration:** the renewing, repairing, cleaning-up, remediation or other management of soil, groundwater or sediment so that its functions and qualities are comparable to those of its original, unaltered state.

**revegetation:** the replacing of original ground cover following a disturbance to the land.

**royalties:** usage-based payments for the right to the disposition of UNMS, usually expressed as a percentage of UNMS extracted or sold.

**unconsolidated non-metallic substances, or UNMS:** sediments ranging from clay to sand to gravel, with connected pore spaces that allow groundwater to be stored and transported. This definition mainly includes sand, gravel, clay, earth, ash, marl, stone, fill material, top soil, non-metallic placer deposits and peat.