Project definition template

A guide to the information needed to plan for permitting, authorization and approval of activities undertaken for a mineral sector project in Ontario.

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Purpose

Advanced exploration and mine development projects are complex, involving various provincial and federal ministries or agencies, each playing important roles in the regulatory process for the development of mineral resources in Ontario. Effectively managing these complexities requires a coordinated, efficient, and dynamic approach.

This updated Project Definition Template (the “template”) is designed to assist proponents in developing a detailed project definition in the early stages of planning a proposed advanced exploration or mine production project This template should be used by proponents and included, where required, as an additional document in a Notice of Project Status (“NPS”) submission (see Section 5 of the form) Notice of Project Status: Under the Mining Act - Forms - Central Forms Repository (CFR)

The template is also designed to assist proponents to provide adequate information in their request for designation under the Ontario whole-of-government **One Project, One Process (“1P1P”)** approach. and includes a refined format and additional information to support the coordination of permits, authorizations, approvals, Indigenous and public consultation, and decision-making processes for proposed designated projects. 1P1P applies to advanced exploration and mine production projects that require coordination across multiple ministries for permitting and Indigenous and public consultation processes due to their impacts, regulatory complexity and/or scale. Eligible projects include:

- proposed new advanced exploration or mine development projects.
- mine restarts after a period of temporary suspension or inactivity.
- major mine expansions or changes to an advanced exploration or mine development project that may require multiple permits or authorizations.

Instructions

This template was developed to consolidate information requirements for multiple regulatory ministries.

It is the Proponent's responsibility to provide all the necessary information requested in this template. Incomplete or inaccurate Project Definitions will be returned to the proponent for resubmission which **may delay the project**. It is incumbent upon the proponent to identify which permits, approvals, or authorizations will likely be needed for their proposed project, as they have the most intimate knowledge, including technical aspects, of the planned project and ancillary activities.

Proponents should have a thorough understanding of the timelines required for any necessary studies that may be required before an application can be submitted for a permit, approval, or authorization in relation to their project. Proponents are also encouraged to reference applicable guidance materials, policies or standards, including the Mine Rehabilitation Code of Ontario when filling out Project Definition.

It is highly recommended that a proponent begins discussions with the MEM Mineral Development Branch early in the project planning stages, even if not all the suggested background information is available at the time discussions are initiated.

When completing the Project Definition, the proponent should consider that permits, approvals and authorizations for the proposed designated project may be required at different points in the project sequence. For example, some permits, approvals and authorizations may be temporary for construction purposes only while some may be required for commissioning and operation of the mine and mill. To help the proponent, the template highlights sections where these specific details may be more relevant to provide.

For proponents of advanced exploration and mineral development submitting an NPS that are not seeking a 1P1P designation, information is required when submitting an NPS to the Ministry of Energy and Mines ("MEM") under Part VII of the *Mining Act*. Should an existing project definition or format exist, please provide a cross-reference to relevant sections in the template provided here. If a proponent chooses to submit an existing document instead of using the template provided, the proponents must indicate where in the submitted document the content corresponding to the relevant fields in the Project Definition template are located.

For potential 1P1P projects, information collected through the Project Definition Template will be used to assess 1P1P eligibility and evaluate project and proponent readiness to proceed in a 1P1P capacity This information will support the Minister's decision to designate a project under section 153.0.1 of the *Mining Act*. under ss.153.0.1 (1) of the *Mining Act.*

For a 1P1P designated project, after confirming receipt of complete Project Definition, information collected will also be used by the Mine Authorization and Permitting Delivery Team (MAPDT) to develop an Integrated Authorization and Permitting Plan ("IAPP") to effectively coordinate the permit, authorization, Indigenous and public consultation, and

decision-making processes with other ministries or other agencies, as applicable. The Project Definition and IAPP will also be used by the MAPDT to inform coordinated Indigenous and public consultation planning.

For additional information regarding 1P1P and potential project designation, please contact 1P1P@ontario.ca

Project area, land tenure and ancillary activities or infrastructure

Site planning and land tenure are critical components of the permitting, authorization and approval processes for proposed projects. In some instances, the timing and type of land tenure may inform the sequence and requirements for one or more permits, authorizations or approval applications (i.e. some permissions cannot be issued without appropriate land tenure in place). Applicable land tenure application requirements and processes should be well researched and understood.

The process of bringing mining claims to lease can take considerable time. Proponents are encouraged to initiate discussions with the MEM Provincial Recording Office (pro.ndm@ontario.ca) as early as possible.

It is important to clearly identify the project area for which the project definition applies, for example, information about the anticipated closure plan boundary for a proposed project. Any proposed works, activities and facilities or infrastructure ancillary to the project site should be included as part of the project area for the purpose of this project definition. Ancillary activities also need to be considered in relation to applicable permits or authorization, timelines, and potential Indigenous and public consultation obligations for development of the project (e.g. mine production). Some examples of ancillary activities could include access roads, transmission lines, or gas lines to the site.

An outline of all anticipated features, activities, works and facilities associated with the project, at least at the conceptual level, is essential. The proponent should outline where there are any uncertainties about the project and discuss alternatives under consideration. An outline of anticipated impacts (including both on-site and off-site impacts), mitigation of impacts, and methods and technology to be used is important to understand and useful information to be presented if this information is known or available, even if conceptual at the time.

Baseline studies

Regulatory ministries should be consulted prior to initiating baseline studies to ensure study designs are appropriate to support future permitting requirements. If baseline data is available, the project definition should provide a high-level summary of environmental studies or monitoring programs already underway as well as any results to date, focusing on key aspects of the natural environment that could be impacted by the project. Baseline studies will have commenced during earlier exploration phases of the project. Remaining timelines for the completion of baseline studies, if known, should also be included. This information will allow the proponent to receive meaningful feedback from

ministries on the adequacy of current or planned data collection and monitoring programs.

Indigenous community consultation, engagement and relationship building

Ontario is committed to meeting its duty to consult Indigenous communities where it arises. The Crown has a constitutional duty to consult and, where appropriate, accommodate Indigenous communities when it has knowledge of Aboriginal or treaty rights protected under section 35(1) of the *Constitution Act, 1982*, and contemplates conduct that has the potential to adversely affect those rights.

Where the duty to consult arises, the Crown may delegate procedural aspects of the consultation process to third parties as they have the most in-depth knowledge of their proposed projects and are often better suited to explain the technical aspects of the proposed activities. In such cases, the government retains the discretion to determine, to their satisfaction, whether the Crown's duty to consult has been satisfied.

Consultation with Indigenous communities refers specifically to activities undertaken by the Crown in relation to its duty to consult, which is a constitutional obligation that flows from the honour of the Crown and the protection afforded to Aboriginal and treaty rights under section 35 of the *Constitution Act, 1982.* Whereas Indigenous engagement is about building trust, fostering long-term relationships and promoting a mutual understanding between Indigenous communities, the Crown and proponents outside of legal obligations.

Early engagement with Indigenous communities is critical to fostering trust, transparency, and mutual understanding. Initiating dialogue at the earliest stages of project planning creates space for Indigenous communities to meaningfully participate in shaping the direction and outcomes of development activities. It also provides proponents with valuable insights into community priorities, cultural values, and potential concerns which can inform project design and decision-making. Proactive engagement helps avoid misunderstandings, delays, and conflict, and lays the foundation for long-term, respectful relationships. By demonstrating a genuine commitment to open dialogue, respect, and collaboration from the outset, proponents can build relationships that extend beyond regulatory requirements while contributing to more meaningful consultation processes.

Important

1. The proponent may work with the assigned Mineral Exploration and Development Consultant to complete the project definition template. Project definitions **must** be submitted in digital (PDF) format. Any supporting data should be provided in an accessible format such as Excel.
2. Proponents filling out this form should prepare a report containing, at a minimum, all information required by Schedule 2 of O. Reg. 35/24 REHABILITATION OF LANDS that is applicable to the project, or follow the template below to guide its content and structure.
3. For proponents pursuing 1P1P project designation, to support the development of an IAPP, details regarding permits, authorizations, and approvals as identified by the proponent throughout the template should be summarized in the table found in Appendix B and provided with the Project Definition submission.

For further information

For further help with this template, please contact your nearest MEM Mineral Development Branch office:

Sudbury: 933 Ramsey Lake Road, 6th Floor. **Phone**: (705) 670-5787

Thunder Bay: Suite B002, 435 James St. S. **Phone**: (807) 475-1123

Timmins: 5520 Hwy 101 East. **Phone**: (705) 235-1625

For information regarding 1P1P, please contact 1P1P@ontario.ca

Freedom of information

Records in the custody or control of the Ontario government are subject to the *Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. F.31 ("FIPPA"), subject to specific exemptions.

The proponent acknowledges that any information provided to the Ontario government through the project definition submission or other regulatory applications, for the proposed Project may be subject to disclosure under FIPPA, by court order, or during legal proceedings.

Personal information, if any, obtained through the project definition submission, is collected by the Ministry of Energy and Mines under the authority of the *Mining Act,* R.S.O. 1990, c. M.14. and will be used by the Ministry for the administration of the mine authorization and permitting delivery team and its functions. Information provided will be managed in accordance with FIPPA. Questions about this collection should be directed to access.privacy@ontario.ca, Ministry of Energy and Mines.

The proponent understands that the information collected through the Project Definition will be shared with other participating and/or supporting ministries participating in the 1P1P process and Indigenous communities for the purpose of administering the 1P1P approach for designated 1P1P projects. MEM and/or other participating ministries may also reach out to proponents for feedback to enhance the 1P1P process.

It is the Proponent's responsibility to provide all the necessary information requested in this template. Incomplete Project Definitions will be returned to the proponent for resubmission which may delay decisions related to the designation of a proposed project for 1P1P, and/or the MAPDT's preparation of the Integrated Authorization and Permitting Plan for designated projects. If, after submission of the Project Definition, any activities or the scope of the Project changes, in addition to meeting any applicable legislative or regulatory notice requirements, proponents seeking project designation under 1P1P and proponents of designated projects must notify the MAPDT Team lead of these changes at the earliest possible opportunity which may require changes to the proponent's submitted Project Definition.

This template is not a legal document and does not change any existing federal, provincial, or legislative or regulatory jurisdiction, right, power, privilege, prerogative or immunity by virtue, nor does it create any new legal powers, duties, or legally binding obligations. The proponent is responsible for obtaining all necessary permits, authorizations, and approvals required for the project described herein. Please note that this template should not be construed as providing readers with technical or legal advice or interpretation of legislation or regulations. The Ministry of Energy and Mines encourages proponents to seek independent legal advice, and the services of qualified professionals where needed.

Project definition template

1.0 Proponent information

1.1

- Project name, type and location.

1.2

- Name, address and corporate description of the proponent, and name, address, and description of mining rights owner, if different from project proponent
- Official legal company names for parent and any subsidiary or operating companies.
- Ownership of Project (current and proposed) and reporting relationships between all parties.
- Name and title of one or more persons with signing authority for the proponent.
- Name and contact information of one or more persons integral to the project from whom a government coordinator may obtain more information.
- Names of consultants/agents representing your company and project.
- Information on the reporting structure between proponent(s), agents, consultants, and any other corporate entity involved in the project.

1.3

- Name(s) of any co-proponent(s), such as joint venture partner, corporation, government department or agency, municipality, Indigenous community, or other entity.

2.0 Project information

2.1

Provide a summary of the of the following components related to the project including any relevant background during all stages (predevelopment, construction, operation/ production), as appropriate to articulate state of readiness to proceed:

- Mining activities, including rates and methods of production
- Processing, including methods, reagents, and water usage
- Facilities and infrastructure, including roads, railways and power supply
- Tailings, waste rock and other mine stockpiles
- Water management, including taking, water treatment, and their purpose
- Waste management, including municipal and hazardous waste disposal

2.2

Current status of the proposed project (i.e., identify any project milestones that have been achieved) including technical reports (e.g. feasibility studies) filed in accordance with National Instrument 43-101

2.3

Include a list and general description and purpose of completed baseline and engineering related studies as well as ongoing or anticipated baseline studies with estimated dates for completion

3.0 Project location and site plan

3.1

Identify the location, size, site boundaries, and land tenure for the project, including details of the activities occurring on the land.

The following project maps and site plans are required:

- **Regional Scale:** e.g. topographic setting, watershed areas, settlement areas, neighbours, infrastructure location, provincial highways, other public and/or private roads, power lines, land use areas and boundaries. Include property insert location maps and plans.
- **Property Scale:** e.g., topographic contours**,** watersheds**,** water bodies, wetlands, downstream receivers, data points, features such as: known hazard areas, monitoring locations, existing and proposed infrastructure, existing and proposed access to provincial highways, public roads and/or private roads, property boundaries, township fabric, land parcels with numbers, lots & concessions labelled, site location with regional insert sketch.
- **Site Plan:** A site plan of legible scale indicating the location of all project features, including all openings to the surface, haulage routes, in relation to the site boundaries and the claim numbers, parcel numbers and, where applicable, the township name, lot number and concession number.
- **Construction:** Include a separate figure for construction activities. This may include water crossing locations, laydown areas, ready lines, water taking locations etc.

4.0 Land tenure

The type of land tenure where the proposed project is located may be relevant when applying for a permit, authorization, or approval requirements.

Provide a summary of the land tenure status of the proposed project's site, associated facilities, and infrastructure, including the status of surface and mining rights of patented or leased land.

Note: much of this information is best illustrated via site plans - See Section 3 and appendices

4.1

- Describe the boundaries and current land tenure of the site, including leases, applications for a lease or patented lands held by the proponent, Crown or a third party, including information about mining or surface rights (e.g. easements, reservations, forest resource license holders etc.).
- Include the status of any mining lease applications process under s.81 of the Mining Act.

Identify potential permits, authorizations or approvals and the type of tenure required to satisfy the application process.

4.2

- Detail the location and ownership of timber that may be affected by the project, if applicable.
- Hectarage of anticipated tree clearing.

4.3

- Detail the location and ownership of sand and gravel resources, if applicable and any new planned aggregate resource development.

4.4

- Describe the types of neighbouring land tenure and identify owners/holders accordingly. Specifically, note where there are private surface rights owners whose consent may be required to access the lands on which the project is located.

5.0 Proposed project schedule

This section provides regulatory ministries and agencies with a clear and concise picture of the project and the identification of any potential permits, authorizations or approvals that may be required. If the project relates to an expansion of an existing mine, then describe the percentage increase in size or capacity.

5.1

- Describe the proposed overall project development schedule, including feasibility/engineering studies, baseline data collection, permitting, authorizations and approvals. Please use the in the template provided in Appendix B to summarize this information.

Note: the overall project development schedule should be detailed and include information such as anticipated timelines for early groundworks, start of construction for specific works, planned initial test mining, mill start up, etc.

Additional considerations for 1P1P projects:

In describing the overall project development schedule, consider what permitting, approvals and authorizations, would be required for each proposed project activity, include information about the sequencing, dependencies, and purpose (e.g., Permit to Take Water for construction related dewatering-VS. for dewatering for mine production).

5.2

- Provide an overview of construction plans (including any site-related or technical limitations that restrict how or when activities may be carried out) and the proposed project development schedule, including the time of year, frequency, duration, special environmental engineering or access issues, resources and workforce required for all construction and other phases of the project. E.g. Dates, Schedule Pinch Points, Number of workers.

5.3

- Expected duration of the project (provide the expected duration of the advanced exploration project or the expected life of the mine).

6.0 Project engagement and consultation

6.1 Indigenous consultation and engagement overview

Information related to each Indigenous community should be attached as separate appendices.

- Provide a list of Indigenous communities and/or organizations previously consulted with or engaged by the proponent; who may be potentially affected by the proposed project.
- Provide a summary of any previous direction from government and describe the extent of consultation with Indigenous communities undertaken pursuant to Crown direction to date, if any, as well as a summary of major discussions, considerations and potential adverse impacts to Aboriginal or treaty rights identified by communities and any plans for future consultations.
- If applicable, provide a list of known Indigenous communities or organizations that have expressed interest in the proposed project but have not been engaged or consulted with by the proponent.
- If known, indicate the proximity of the project site and ancillary works, facilities and infrastructure to lands that are currently used or have been traditionally used by Indigenous peoples, including Sites of Aboriginal Cultural Significance.

6.2 Public consultation overview

- Describe the extent of public consultation undertaken by the proponent to date, if any, a summary of discussions, considerations and any concerns or impacts identified by the public with respect to the proposed project (i.e. EBR, or public notice under O. Reg. 35/24).
    - Describe any additional public consultations that are planned or may be anticipated, and any previous direction received to undertake public consultation.
    - Provide a list of public stakeholders who may be potentially affected by the project.

7.0 Regulatory processes and schedule

This section provides regulatory ministries or agencies with a clear and concise picture of the project and the identification of any potential permits, authorizations or approvals that may be required. If the project relates to an expansion of an existing mine, describe the percentage increase in size or capacity.

7.1

- Provide an overview of any regulatory, permits, authorizations or approvals that have been obtained or applicable processes that are currently underway.
- Include an overview of any environmental assessment, permits, authorizations or approvals, or other regulatory requirements (federal, provincial, municipal) that the proponent considers may be applicable to the proposed project, along with the schedule for when the proponent plans to apply for or satisfy the application requirements for those items. Please use the template provided in Appendix B to summarize this information
- Include a summary of engagement with any applicable regulatory ministries or agencies

8.0 General site information

It is suggested that maps, plans (including relevant shapefiles) and photographs be included to illustrate key site features and work location

8.0.1

- Geographic information: description of location, and access to site (District/Township)
- Means and location of access to the project site (e.g. existing road or highway)

8.0.2

- Geographic Coordinates:
- Latitude/Longitude or UTM coordinates (I.e. dd.mm.ss / UTM Zone NAD83.)
- Shapefiles must also be provided.

8.0.3

- Describe the area and nature of ground disturbance within the project site (open pit, tailings management facility, stockpiles, buildings, and infrastructure, etc.).

8.0.4

- Indicate if there has been a previously filed closure plan for this site. If yes, when and by whom?

8.0.5

- Provide details on the history of the site.

- Indicate if the site is listed on the Abandoned Mines Information System ("AMIS") database as a known abandoned mine or if there are any known mine hazards located within the project site.
- Include details of any previous mining activities that may have resulted in a mine hazard being created or existing on the site or any known impacts from contamination of the site that has previously occurred, including the history of the site, an assessment of any physical mine hazards that exist and an assessment of any current contamination of soils and/or surface and ground waters that exist at the start of the project.
- Provide any information about previous activities on the site, including any potential for contamination or hazards from a past land use.

8.0.6

- Detail any site remediation, rehabilitation, restoration, or natural regeneration that has taken place on the site. Please describe.

8.1 Maps and site plan

The information requested can be presented using site plans, unless otherwise indicated. Site plans at an appropriate scale and quality are essential and will assist the MAPDT effectively coordinate with other ministries or other agencies, as applicable, to help expedite the permits, authorization, and decision-making processes. Sample plans are attached in Appendix A. It is recommended that a shapefile also be included.

8.1.1

Regional scale: e.g. topographic setting, watershed areas, Crown lands, municipal boundaries or settlement areas, neighbours, infrastructure location, provincial highways, other public and/or private roads, power lines, land use areas and boundaries. Include project location maps and plans.

(See Figure 1 in Appendix A)

Regional map: minimum information requirements for regional map

- the map must be between 1:50,000 and 1:250,000 scale
- indicate where in the province the project is located, including any local identifiable features such as towns and cities
- lakes, streams, wetlands, and other notable topographic features, railways, roads, power lines and pipelines
- township boundary lines, mining claim, lease, licence of occupation or patent boundaries
- First Nation reserves must be identified if within the scale of the map
- a graphic or bar scale
- a north direction arrow
- grid coordinates (e.g. UTM coordinates)
- legend with a descriptive list of all symbols used on the map

8.1.2

Project map: Minimum information requirements for project map(s)

- The map(s) must be between 1:5,000 and 1:40,000.
- The leases, licence of occupation, patent, or parcel numbers of all mining lands where the proposed project site would be located, including any registered mining claims outside the site boundary.
- Township boundary lines, leases, licence of occupations or patent boundaries and parcel numbers.
- The location of the proposed project site, infrastructure development(s) and any activities must be indicated on the project scale map.
- Known mine hazard areas, monitoring locations,
- Activities indicated on the map should correspond with the activities indicated in the Project Definition.
- Additional information about ancillary activities or works, such as trails, roads, railways, utility corridors and camps should be shown on the map using a line, point or polygon within 100 m of where they will be located.
- Local identifiable features such as towns and cities if located within the scale of the map.
- Lakes, streams, wetlands, and other notable topographic features.
- Features such as buffer zones, ecological corridors, or sensitive receptor mapping
- First Nation reserves must be identified if within the scale of the map.
- A graphic or bar scale.
- A north direction arrow.
- Grid coordinates (e.g. UTM coordinates)
- Legend with a descriptive list of all symbols used.
- Topographical details of the site, including a plan of appropriate scale and contour interval where the project will alter existing site topography. (See **Figure 2** in **Appendix A**)

8.1.3

- A site plan of legible scale indicating the location of all project features, including all openings to the surface, in relation to the site boundaries and the claim numbers, parcel numbers and, where applicable, the township name, lot number and concession number.
- Include plans and sections of proposed new underground or open pit development.
- Include property boundaries on site plans.

Note: the site plan meets the specific requirements (See **Figure 3** in **Appendix A**)

8.1.4 Construction plan:

Where appropriate, provide a site plan that shows associated activities or off-site infrastructure or project features that may only apply during specific points in the development sequence (e.g., sumps for construction dewatering,

temporary access roads, location of temporary camps for construction workers, temporary staging areas for equipment and materials, etc.).

8.2 Current land use

8.2.1

- Details of the current land use of the proposed project site, including current zoning and official plan designations, where applicable.
- Details of any commercial or remote tourism or cottaging.
- Describe the geographic area or scope of any potential impacts arising from the project.

8.2.2

Details of any adjacent lands that may be affected by the proposed project , current zoning and official plan designations, and any land uses and occupants, where applicable.

8.2.3

Indicate the proposed project's proximity to important or designated environmental or cultural heritage resources, such as national or provincial parks and conservation reserves, conservation areas, heritage properties, historic canals, Areas of Natural and Scientific Interest, vulnerable areas, potential offsite impacts to Indigenous communities, and other sensitive protected areas.

8.2.4

Indicate the proposed project's proximity to recreational, residential, riparian landowners, and other urban areas.

8.2.5

- Indicate the project's proximity to Indigenous communities, and whether there are any potential impacts to those communities
- Details of any adjacent Indigenous community lands (e.g., First Nation reserve) that may be affected by the proposed project.
- Details of traditional use or access by Indigenous communities that may potentially be impacted, if available (e.g. hunting, harvesting, traplines, Indigenous burial sites, etc.).

8.2.6

Indicate the project's proximity to and use of existing or proposed roads and highways and identification of the entity responsible for access and/or maintenance. For each existing or proposed road or highway, identify whether the road is public or private and whether any upgrades to the road are necessary. If the road is private, identify the entity responsible for access and use. If the road or highway is public, identify the responsible road authority. Please also include information about the volume of traffic attributable to the project for each road or highway.

8.2.7

Indicate any proposed and current restrictions to access the site, including fencing around the mine site or hazards, gates and site or activity-specific signage warning of access restrictions or potential dangers.

9.0 Project detail

9.0.0

Mining activities

9.0.1

List and describe any existing/previous mine development, operations, and/or facilities located on the site and any ancillary infrastructure.

9.0.2

- Indicate whether the project involves critical minerals.
- Identify the targeted mineral(s), geology, and mineralogy.
- Include the resource and reserves for the project.

9.0.3

- Details of the proposed mining activities anticipated throughout the life of the project, including methods and mining rates, including any proposed additional mine developments, or expansions, if known, and methods and procedures for handling mine backfill.
- Proposed major equipment and installations.

9.0.4

- Detailed plans and sections of proposed new underground or open pit development.

See **Figure 3** in **Appendix B**

9.1 Processing

9.1.1

Details of any processing, including a general description of the process, types and rates of any reagents used and a process water balance.

9.1.2

Provide an estimate of maximum production capacity of the project (i.e. mill) and a description of the production processes to be used.

Capacity refers to the maximum capacity based on the project's design and operating conditions, not the planned capacity of a project.

9.1.3

Describe any plans for offsite mineral or metallurgical testing, milling, smelting, or refining in as much detail as possible, including the name, location(s), and countries of any planned processing sites.

9.2 Tailings, waste rock, and other mine stockpiles

9.2.1

Anticipated production rates for mining, processing, and deposition (tonnes, cubic metres per day/year)

9.2.2

Details of the production, handling, storage and disposal of waste rock, ore, concentrate and overburden, including the physical and chemical nature of the materials, an assessment of the potential for metal leaching and acid mine drainage in accordance with the Mine Rehabilitation Code of Ontario (the "Code").

9.2.3

Details of the location, size and nature of any storage or disposal areas and a surface plan of legible scale showing the location of any storage or disposal areas and stockpiles.

9.2.4

Details of the production, handling and disposal of any tailings on the site, including the physical and chemical nature of the tailings, an assessment of the potential for metal leaching and acid mine drainage in accordance with the Mine Rehabilitation Code, the rate of production of tailings, methods of handling tailings, the location, size and nature of any tailings impoundment and treatment areas and a surface plan of legible scale showing the location of any such areas with engineering details of any impoundment structures.

9.3 Facilities and infrastructure

9.3.1 Roads and railways

- Detail if any expansions and/or improvements are anticipated as being needed to existing provincial highways, public, or private roads.
- Detail any proposed new roads on Crown or private lands, including their anticipated length, proposed route (and alternative routes considered), water crossings, bridges and expected traffic load. Detail the standards by which roads will be built.
- Detail any non-routine maintenance in improvements to existing roads (i.e., changing the standard of an existing road to a higher one, widening driving surface, realigning corners, and replacing or upgrading existing water crossings).

- Indicate if contemplated roads will be seasonal or all-weather. Also indicate any temporary and permanent features; access roads for construction purposes; or access to aggregate/camp locations etc.
- Indicate if any proposed new roads will form part of this project definition.
- Highlight any proposed re alignment or change of location of any existing public access road especially to boat launches, cottage areas, subdivisions, or popular remote recreation areas.
- Include a description of any new provincial highway alignments, new or existing entrances, encroachments, and signage that may be required.
- Include description of new or existing rail lines and facilities and crossings that may be required.
- Include preliminary traffic data/analysis such as anticipated daily trip generation.
- Indicate any of the above features or changes on the appropriate map or plan in Appendix A or provide a map with sufficient detail and at a sufficient scale to show all relevant information.

9.3.2

Describe any proposed marine or inland water transportation routes and the cargo to be carried.

9.3.3

Description of any contemplated port or dock facilities that may be required, including dredging requirements.

9.3.4

Indicate if an airfield may be required and, if so, describe location, orientation, anticipated runway length and type and volume of air traffic.

9.3.5 Power supply

- Detail the proposed method of regular power supply to the project.
- Describe engagement with the Independent Electricity System Operator to supply the power, total electrical demand/consumption anticipated, total generating capacity of primary use diesel generators, standby generation facilities/capacity. Include length, capacity, and proposed route of power transmission lines, planned location of any substations, and connections to existing grid.
- Indicate any onsite power distribution plans, including standby or emergency generation.
- Include proposed geographic coordinates including linear development projects (e.g. pipelines, transmission lines) and the proposed locations of major ancillary facilities that are integral to the project.
- Indicate if any proposed new power lines from the existing grid will require a new right of way to be cleared, and will it form part of this project definition.

9.3.6

- Describe any fuel, natural gas or other pipelines anticipated, including their capacity, length, proposed route and potential location on site or off site, and whether any water crossings or Crown or private road crossings will be required.
- Indicate if any proposed new natural or other gas pipelines will form part of this project definition.

9.3.7

- Detail any anticipated dams, dikes and diversions or other facilities in or near water bodies that are planned or potentially needed.
- Detail any water intake and/or tailings pipelines, including intake, outflow locations, and routing onsite and whether any water crossings will be required.
- Indicate what consultation will be undertaken with riparian owners if impacts are anticipated to riparian owners on affected waterbodies (i.e. impacts on water elevation or access changes).

9.3.8

Details of all activities, infrastructure, permanent or temporary structures and physical works to be included in and associated with the planning, engineering, site preparation or construction, operation, and decommissioning of the project.

Include existing structures or ancillary activities that would form part of or would be required to support the designated project.

9.3.9

Indicate any distinction between ongoing activities or existing permitted or authorized activities works, and which activities would also form part of the proposed project.

This section should include the activities, works and infrastructure that are ancillary to the proposed project.

9.3.10

Details of existing and anticipated buildings and infrastructure on the site, including their (date, for existing), size, type, use and location and a surface plan, at a legible scale, showing their location.

9.3.11

- Describe the work force requirements and schedule for when the work force would be onsite. (i.e. construction, operations)
- Number of workers

9.3.12

If a camp and associated services, including a separate construction camp, are required, include a description of the proposed:

- Land tenure for the camp's location
- accommodation capacity for each
- water, sewage, and municipal waste facilities
- other facilities (e.g. medical, fire)
- area in Ha required, site/tree clearing, access, length of occupation

9.3.13

- Indicate whether there will be any aggregate requirements and, if so, describe any proposed pits, quarries including:
  - Anticipated annual production requirements, and whether material will be collected from above or below the water table.
- Provide a map showing proposed aggregate or aggregate exploration locations and access to locations.

9.3.14 Storage sites

- Details of storage sites for petroleum products, chemicals, explosives, hazardous substances, including the quantity of materials stored, the size, nature and location of such storage areas and a surface plan of legible scale showing their location.

9.3.15

- Proposed disposal location(s), method(s) and any treatment if necessary.
- Provide details of any mitigation measures planned such as liners under PAG stockpiles, collection ditching, and the development of a metal leaching and acid mine drainage geochemical management plan.

9.3.16

- Summarize any previous operation experience and performance, if applicable.

9.3.17

- Describe the nature of the tailings reporting to the tailings management facility, (i.e. thickened) and any associated infrastructure.

9.4 Water management

9.4.1 Water taking requirements

- Provide a description of anticipated water taking requirements including uses, rates, sources intake locations and any known impacts or other considerations expected (e.g. include construction dewatering, sump dewatering, mine/pit dewatering, pump test, freshwater, dust suppression, fire suppression, process, cooling, recycled or reused, potable water or other significant taking, removal, transfer, or storage of water more than 50,000 L/day).
- Summarize any previous operation experience and performance, if applicable

- Provide location on a map of water taking and water monitoring locations, to assess if occupational authority is required.
- Consider whether a Water Management Plan is in place on the waterway.

9.4.2 Water treatment and disposal requirements

- Provide details of any water management or treatment systems, including a description of the processes and physical facilities for such systems.
- Provide a description of anticipated major wastewater treatment systems, e.g. mine water, storm water, industrial and domestic sewage, sediment and clarification ponds, coolant water.
- Describe or illustrate the anticipated physical facilities for such systems. (e.g. treatment process ponds, settling ponds, polishing ponds, dams, pipelines, ditches, wetlands, discharge locations, sampling points etc.). Include a site plan showing location of such features in relation to property boundaries, environmentally sensitive features (surface water, wells, etc.).
- Indicate the expected treatment performance, including an estimate of effluent quantities and qualities and parameters of concern.
- Detail the intended/potential effluent discharge locations to surface waters and/or groundwater.
- Detail anticipated impacts on receiving water considering water quality and quantity, as well as impacts to biota.
- Summarize any previous operation experience and performance, if applicable.

9.5 Waste disposal and management systems

- Describe the nature of any solid, liquid, or gaseous wastes likely to be generated by the project, including any contaminated soils from previous site activities.
- Provide available details of any existing, historical, or proposed waste management systems and treatment or disposal sites, including disposal sites located within tailings areas, a description of the treatment or disposal process or system and a surface plan of legible scale showing the location of any treatment or disposal site, seepage management infrastructures, and effluent discharge points.
- Detail the anticipated disposal procedures for any toxic/hazardous materials to be used or by-products of the project and anticipated production rates of these materials.
- Summarize any previous operational experience and performance with respect to waste disposition and management systems, if applicable.
- Identify if planning to use an approved Municipal Waste Disposal site or seek approval for your own facility.

9.6 Closure, rehabilitation, and remediation

9.6.1

- Documentation of the as-mined operation to be provided. Describe any closure measures, rehabilitation, or remediation considerations, including revegetation and site remediation after proposed mining activities have ceased.
- Summarize any previous rehabilitation and/or remediation experience, if applicable.
- Provide a general schedule or sequence of mine closure rehabilitation activities.

9.6.2

- Describe any progressive rehabilitation and/or remediation activities to be undertaken during operation of the mine.

9.6.3

- Describe proposed measures to ensure that the physical structure of all water courses and drainage channels remaining on the site will be left so as to not require maintenance.
- Describe proposed measures to breach or stabilize all tailings, water, and other impoundment structures against static or dynamic loadings to ensure the containment of materials and the maintenance of the post-closure state.

9.6.4

- Details of any biological monitoring programs and procedures to assess the effects of the project on any biological communities, including species at risk. These details shall include the locations, nature, methods and frequency of monitoring, the biological communities to be monitored.
- Summarize any previous rehabilitation and remediation experience if applicable.

9.6.5

Expected site conditions:

- Details of the post-closure state.
- Details of the site topography after close-out if changes to the existing site topography are expected, including a topographic plan of legible scale and contour interval.

9.6.6

Details of proposed measures for the revegetation of the site, in accordance with Part 9 of the *Mine Rehabilitation Code of Ontario*.

9.6.7

- Details of the monitoring programs and procedures in accordance with the Mine Rehabilitation Code of Ontario to ensure that the physical stability of mine hazards located on the site provide the level of protection required for

each stage of closure, including the locations, methods, and frequencies of monitoring and how the results of the monitoring will be recorded and reported.

- Details of the monitoring programs and procedures in accordance with the Mine Rehabilitation Code of Ontario to ensure that the chemical stability of tailings, rock piles and stockpiles of ore, concentrate, overburden and other materials, and surface and subsurface effluents provide the level of protection required for each stage of closure, including the locations, methods and frequency of sampling, the parameters to be analyzed, the analytical methods to be used and how the results of the monitoring will be recorded and reported.

10.0 Environmental features and baseline information

Provide a summary of the physical and biological components in the area likely to be affected by the project, such as terrain and topography, wetlands, water, air, noise, vegetation, fish, fish habitat, wildlife, and wildlife habitat (including migratory birds), cultural heritage resources, as follows. Identify Valued Ecosystems Components if possible.

10.1

Include a list of ongoing, existing or planned site studies, and regional baseline studies (with completed studies and anticipated completion dates). Include work such as:

- Air, noise, dust, or dispersion model studies
- Geotechnical and hydrogeology studies
- Geochemical and metal leachate/acid mine drainage assessments
- Soil and sediment quality
- Water quality and hydrology studies
- Benthos, sediment quality, fisheries, fish tissue contaminants, aquatic species, communities, and fish habitat studies (including movement of resident or migratory species)
- Hydrogeology, ground water studies
- Terrestrial plant, wildlife and migratory birds' surveys (including species at risk); not limited to numbers, diversity and movement of resident or migratory species
- Indigenous Knowledge/ harvesting surveys
- Technical cultural heritage studies, including archaeological assessments
- Major mapping/remote sensing, aerial
- Photography or orthophoto surveys etc.
- Species at risk and their habitat

Natural or man-made hazards

10.2 Topography and landforms

Provide a summary of the physical setting and components in the area likely to be affected by the project, such as terrain and topography, special landforms climate etc. attach maps as necessary.

See **Figure 1** in **Appendix A**

10.3 Terrestrial plant and animal communities

- Provide any information characterizing terrestrial plant and animal life communities in the project area that may be affected by the project.
- Indicate any species of risk in the project area, and mitigation plans to avoid or minimize risk to them.
- For example, include known rare, threatened, or endangered species, migration routes, nesting areas etc. in relation to the project.
- Provide an overview of existing or proposed biological monitoring programs.
- Include the maps with locations of sampling or survey points as necessary.
- Describe methods and frequency of monitoring, the biological communities to be monitored.
- Attach any maps showing these areas, if available.
- Summarize any previous environmental monitoring and rehabilitation experience, if applicable.

10.4 Surface waters information

- Provide any information characterizing surface waters that may be affected by the project, including information on the existing quality and quantity of surface water and existing uses (i.e. drinking water, recreation, fishing), if available.
- Include the characterization of the baseline quality and quantity of such waters and a prediction of whether and to what extent they will be affected by the proposed projectIdentify location of water bodies within and adjacent to property boundaries and identify watersheds.
- Provide a description of freshwater/marine environmental features in the area.
- Provide a map of the watershed area showing water bodies and any existing or proposed sampling sites. (See example in Appendix A)
- Illustrate or describe the project proximity to water bodies (freshwater and marine) (e.g., water bodies including names of watercourses, coastal areas, etc.)
- Describe or illustrate the physical characteristics of the waterway, i.e., length, width, depth, seasonal flow, and fluctuations
- Provide any information on fish and fish habitat (e.g., fish presence and species, benthos, sediment quality, fish tissue contaminant concentrations. Details about the aquatic habitats within these waterbodies, including whether they support cold water fish species. Include a map of legible scale

showing the current location of all such waterbodies and their watershed boundaries.
- Provide a qualitative and quantitative description of the fish habitat.
- Indicate any Species of Risk in the project area, and mitigation plans to avoid or minimize risk to them.
- Provide an overview of existing and planned or proposed surface water monitoring programs including locations, methods, and frequency of sampling. Include a map showing sampling locations.
- Describe the existing use of the waterway and its navigability (e.g., kind, size and frequency of vessels, description of existing obstructions in the waterway).
- Indicate if any federal authorizations are required for this project (i.e. for fish habitat offsets or compensations, re-alignment of waterways etc.).

Traditional use of the waterway

- Provide any information on commercial, recreational, or Indigenous commercial/subsistence fisheries in the area.
- Summarize any previous environmental monitoring and rehabilitation experience~~.~~

10.5 Aquatic plant and animal communities

- Provide any information characterizing aquatic plant and animal communities in the project area.
- Provide details of any aquatic plant and animal life that have been or may be affected by the project, (note: for species at risk, see section 6.0.6).
- Provide maps showing these communities, if available.
- Provide an overview of existing and planned sampling and/or monitoring programs including method, location, and frequency of sampling.
- Summarize any previous environmental monitoring and rehabilitation experience, if applicable.

10.6 Ground water information

- Provide any information characterizing and providing and assessment of the quality and quantity of ground waters potentially impacted by the project, including the identification of aquifers and existing groundwater uses on site and in the area.
- Provide an assessment that indicates whether and to what extent groundwater is expected to be affected by the proposed project. Provide an overview of existing or proposed groundwater monitoring programs including method and frequency of sampling.
- Provide maps showing the current or proposed groundwater monitoring locations.
- Summarize any previous environmental monitoring and rehabilitation experience, if applicable.

10.7 Species at risk

Species at risk survey and mitigation requirements to support project planning

10.7.1

Include a list of targeted species for species at risk surveys (e.g., those whose distributions overlap with, or are adjacent to, the project footprint).

For each species listed, include:

- Survey start/end dates,
- Detailed description of survey protocols and methods, search effort (e.g., number of searches, search time, transects per area, number of surveyors, experience and qualifications of surveyors, number of survey stations, etc.),
- Whether the surveys have been completed to date, and the outcome of the surveys (i.e., the number and location of each species and/or its habitat found within the survey area).

10.7.2

- Identify and describe species at risk habitat features on the site, noting any key habitat features (e.g., nests, hibernacula, calving areas, dents, roost trees, etc.) observed at or near the activity location, including the geographic coordinates of the observations.
- Describe if and how the habitat is being used by species at risk for reproduction, rearing, hibernation, overwintering or any other protected life process (please specify). If it is not clear which life process the habitat is supporting, please indicate ‘unknown.
- Include a detailed a description of the landscape (e.g., Ecological Land Classification (“ELC”), Forest Ecosystem Classification (“FEC”) or Aquatic Resource Area (“ARA”) information, slope, aspect, soils, substrate, dominant plant species, associated plant species, etc.).

10.7.3

Describe the effects the project activities may have on species at risk, considering the following:

- Species’ life history, including lifespan, normal daily and seasonal behaviour patterns and how it carries out its various life processes;
- Species’ sensitivity to changes in its habitat;
- Habitat features/components required by the species at various spatial scales and times to carry out its life processes (i.e., how the species uses different areas of habitat at different times of the year and at different times throughout its lifespan);
- The species’ fidelity to various habitat features/components;
- Relative availability of the habitat feature(s) in the local area (e.g., limited or abundant);
- Resilience of the habitat (e.g., resilience to disturbance and ability to recover quickly);

- Spatial (direct) footprint, location, timing, methodology and frequency of the components associated with all stages of the activity;
- Indirect effects of the activity (i.e., effects beyond the physical footprint of the activity);
- Immediate (short term) and delayed (long term) effects of the activity;
- Duration (i.e., permanency) of the effects on the species or its habitat from each stage of the activity (e.g., days, months, years, decades or permanently); and,
- Severity and geographic extent of the effects of each stage of the activity on the species or habitat.

10.7.4

- Provide one or more (e.g., where the activity will occur in multiple locations) maps of appropriate scale that clearly illustrate the items listed below.
- Use of aerial photography and satellite imagery is strongly encouraged. Please indicate the date aerial photos or satellite images were taken as well as the date maps were created.
- Maps should illustrate the following for each location:
  - ELC, FEC or ARA for the location and surrounding area (if available);
  - Topographic information;
  - Any designated natural features;
  - Name(s) of any waterbodies occurring at or near the activity location (if applicable);
  - Current land uses (if available);
  - Location and boundaries (i.e., footprint) of the proposed activity in relation to the surrounding landscape;
  - Location of each species at risk occurrence and habitat found at or near the proposed activity location. Also, include the location and description of any habitat features (e.g., nest, hibernaculum, calving area, vernal pools, spawning beds) found at or near the proposed activity location; and,
  - Data sources, scale, north arrow and legend for the maps

10.7.5

- Identify species at risk that will require a mitigation plan.
- For each species at risk that will be negatively impacted by the project, develop and implement a mitigation plan.
- The plan(s) should be prepared and updated by one or more persons with expertise in relation to every species that is the subject of the plan, using the best available information on steps that may help minimize or avoid adverse effects on the species, which includes consideration of information obtained from the Ministry and Indigenous traditional and community knowledge, if it is reasonably available.

10.8 Cultural heritage resources

- Describe any proposed Indigenous Knowledge Studies/harvesting surveys.

- Describe any previous technical cultural heritage studies undertaken for this project, if any, including archaeological assessments.
- Major mapping/remote sensing, aerial photography, or orthophoto surveys etc.
- Describe any known and potential cultural heritage resources and indicate whether technical cultural heritage studies (e.g., cultural archaeological assessments, cultural heritage evaluation report, heritage impact assessment) will be undertaken. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists (as referenced below) and supporting documentation.

To determine the technical cultural heritage studies that will be required, if any, consult the below resources:

Cultural heritage resources include archaeological resources, built heritage resources and cultural heritage landscapes. The below Ministry developed screening checklists assist property owners, developers, consultants, and others to identify known and potential cultural heritage resources:

Criteria for evaluating archaeological potential

Criteria for evaluating marine archaeological potential

Criteria for evaluating potential for built heritage resources and cultural heritage landscapes

- Completion of these checklists will assist in determining if and which technical cultural heritage studies will be required.Please note that if the subject lands or parts of the subject lands are owned or controlled by an Ontario Ministry or Prescribed Public Body (“PPB”) on behalf of the Crown (the list of PPBs is available as set out in O. Reg. 157/10), a Ministry or PPB may have responsibilities under the *Standards and Guidelines for Conservation of Provincial Heritage Properties*.

10.9 Air emission information

Describe the source and nature of any possible emissions, assessment methods used to determine these and criteria considered, sensitive receptors on- and off-site, and the anticipated monitoring through-out life of project, as well as treatment technology/processes.

Appendices

Appendix A: Sample maps and figures

Appendix B: Table 1: Preliminary list of potential approvals and regulatory requirements

Appendix A: Sample maps and figures to help describe your planned mineral sector project in Ontario

Figure 1: Sample regional map

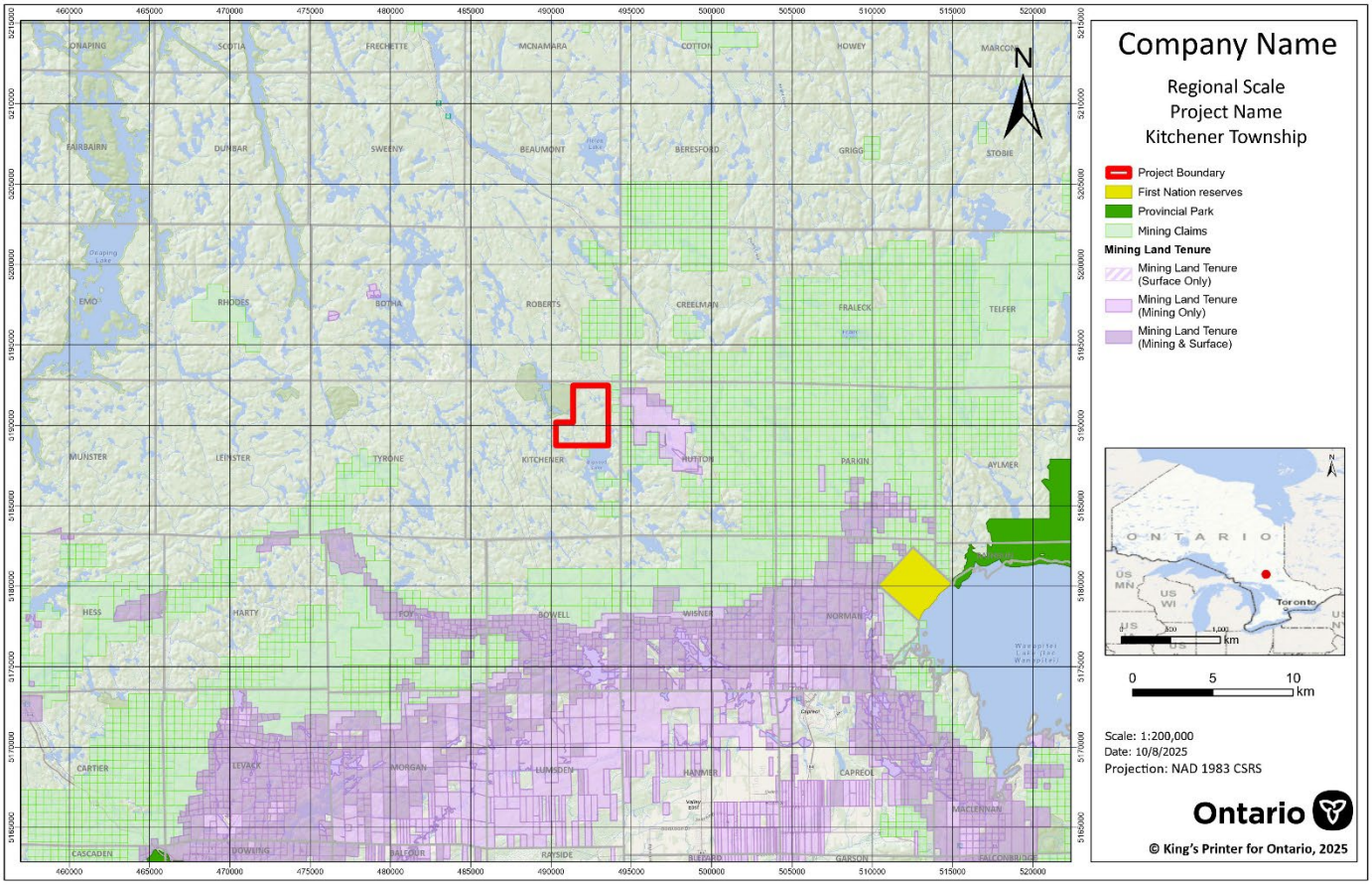


Figure 2: Sample project area map

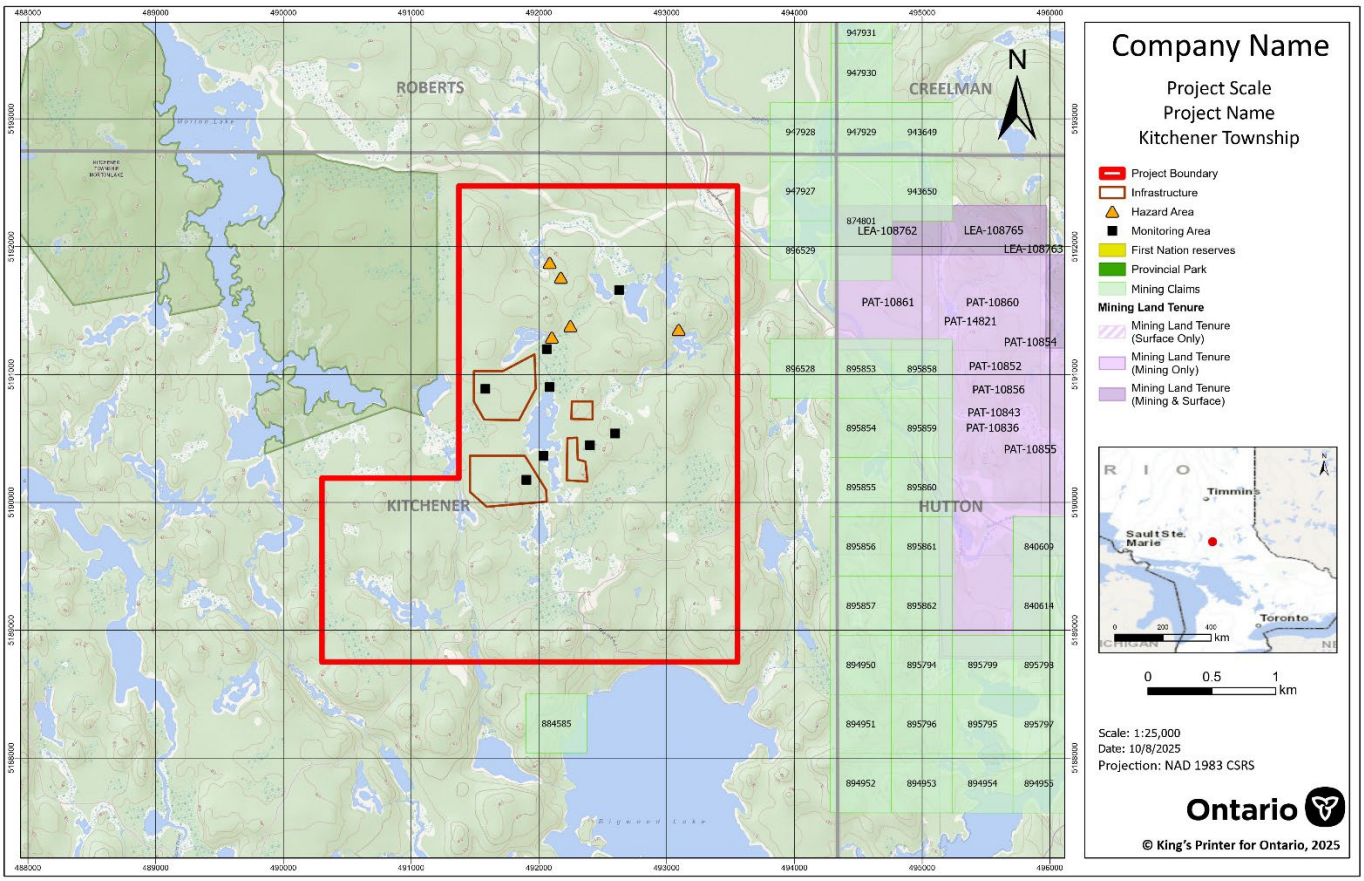
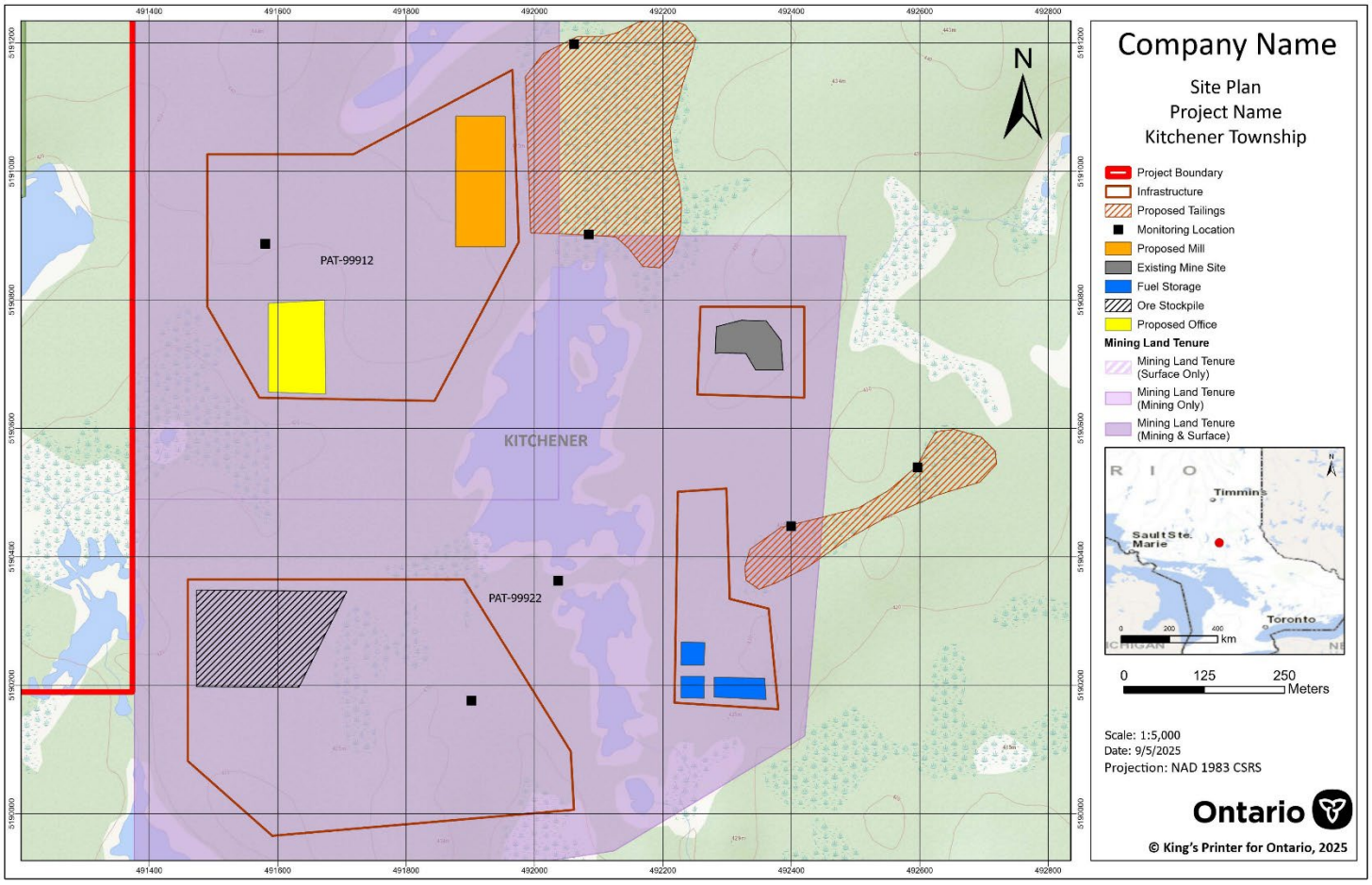


Figure 3: Sample detailed site plan



Appendix B: Table

Table 1 Preliminary List of Potential Provincial Permits, Authorizations or Approvals

		Permitting Details						Permit Timing	
Legislation	**Permits, Authorizations or Approvals**	**Required**	**Activity being Permitted[1]**	**Status of Baseline Studies**	**Status of Land Tenure Requirements**	**Status of Permit Dependencies and Permitting Predecessors**	**Seasonal Considerations**	**Submission Date**	**Required by**
MEM									
Mining Act	Surface Rights & Mining Rights Lease								
	Surface Rights Only Lease								
	Closure Plan								
MNR									
Public Lands Act	Work Permits								
	Easement								
	Land Use Permits								
	Sale and Issuance of a Crown Patent								
	Application for Crown Land								
	Consent to Deposit								
	Lease								
Lakes and Rivers Improvement Act	Location Approval (Dam Construction)								
	Plans and Specs (Dam Construction)								
	Location Approval & Plans and Specs (Water Crossing)								
	Location Approval & Plans and Specs (Channelization)								
	Existing Location Approval & Plans and Specs (Channelization)								
Aggregate Resources Act	Aggregate Permit (Crown Land)								
	Aggregate Licence (Private Land)								
	Permit to Remove								

[1] If multiple of the same type of permit are required, include details on each activity and numbers of permits required (i.e. 3 Work Permits: Activity A, Activity B, Activity C).

Crown Forest Sustainability Act	Forest Resource License								
Fish and Wildlife Conservation Act	Wildlife Scientific Collector's Permit								
	License to Collect Fish for Scientific Purposes								
	Licence to Transport Live Fish								
	Authorization to Interfere with/Destroy								
	Authorization to Destroy/Take/Possess Nests and Eggs								
Environmental Assessment Act	Streamlined Environmental Assessment: Land Disposition- Resource Stewardship and Facility Development								
MECP									
Environmental Protection Act	Environmental Compliance Approval ("ECA")- Emissions								
	ECA- Domestic Sewage								
	ECA- Waste Disposal Site								
Ontario Water Resources Act	ECA- Industrial Sewage								
	Permit To Take Water								
Environmental Assessment Act	Comprehensive Environmental Assessment ("EA") (Voluntary)								
	Streamlined EA: Waste Management								
	Streamlined Environmental Assessment: Transmission Facilities								
	Streamlined Environmental								

	Assessment: Electricity Projects								
Endangered Species Act	Section 17 Permit								
Provincial Parks and Conservation Reserves Act	Occupational Authority (land use permit; easement)								
	Work Permit (resource access road authorization; water crossings; utility corridor)								
	Other Operational Authorizations (off road vehicle use; storage)								
MTO									
Highway Traffic Act	Highway Operations Permits (Overweight/Oversize Permits)								
Public Transportation and Highway Improvement Act	Building Construction and Land Use Permit								
	Entrance Permit								
	Commercial Sign Permit								
	Encroachment Permit								
Environmental Assessment Act	Streamlined EA: Provincial Highways-Class EA for Provincial Transportation Facilities								
MCM									
Ontario Heritage Act	Project Information Forms (PIF)								
	Regulatory report review (compliance with Standards and Guidelines for consultant archaeologists)								
	Exemption [if applicable, pending Bill 5 implementation]								