

Dominion Diamond Corporation

Developer's Assessment
Report – Public Hearings,
September 14, 2015

Introduction, Maximizing Benefits &
Minimizing Impacts to Communities,
Engineering, and Air Quality



Outline

- Overview
 - Brendan Bell, CEO, Dominion Diamond Corp.
- Introduction
- Project overview
- Engineering
 - Waste Rock Storage Area
 - Road design
- Maximizing benefits and minimizing impacts to communities (socio-economics)
- Air Quality

About Dominion Diamond

**We are the Largest NWT Mining Company.
Canadian-Owned - Northern-Based.**

Dominion is the NWT's Largest
owns:

Own 89% of the
Ekati Diamond
Mine

40% of the
Diavik Diamond
Mine

Dominion employs more Northern
Aboriginal resident than any other
mining company in the NWT.

Jay Project – Overview

As an extension of the existing Ekati Mine, the Jay Project represents the continuation of employment, economic inputs, and community development

EMPLOYMENT

- Jay Project extends existing employment opportunities at the Ekati Mine
- New opportunities during operations will be filled by Northern Aboriginal and other Northern candidates wherever possible

ECONOMY

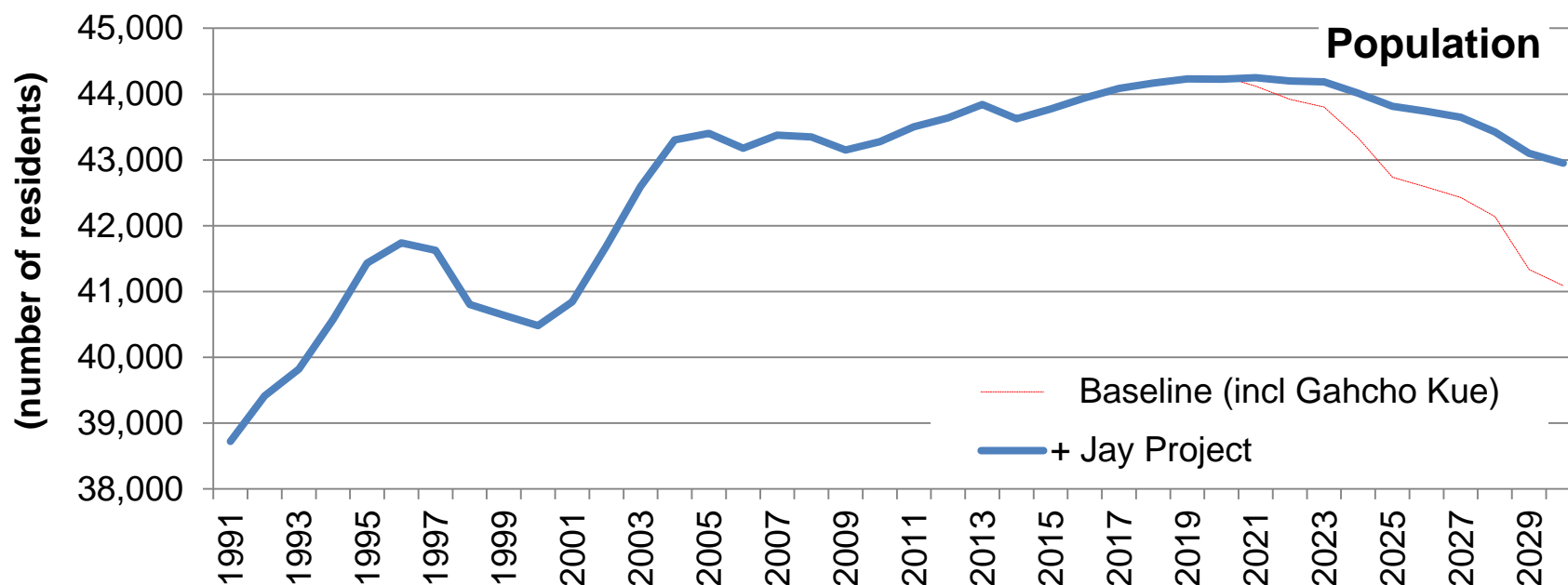
- Jay Project continues production at the current Ekati Mine
- Continues GDP contributions to Territorial economy
- Local contracting opportunities during construction and operations

COMMUNITY

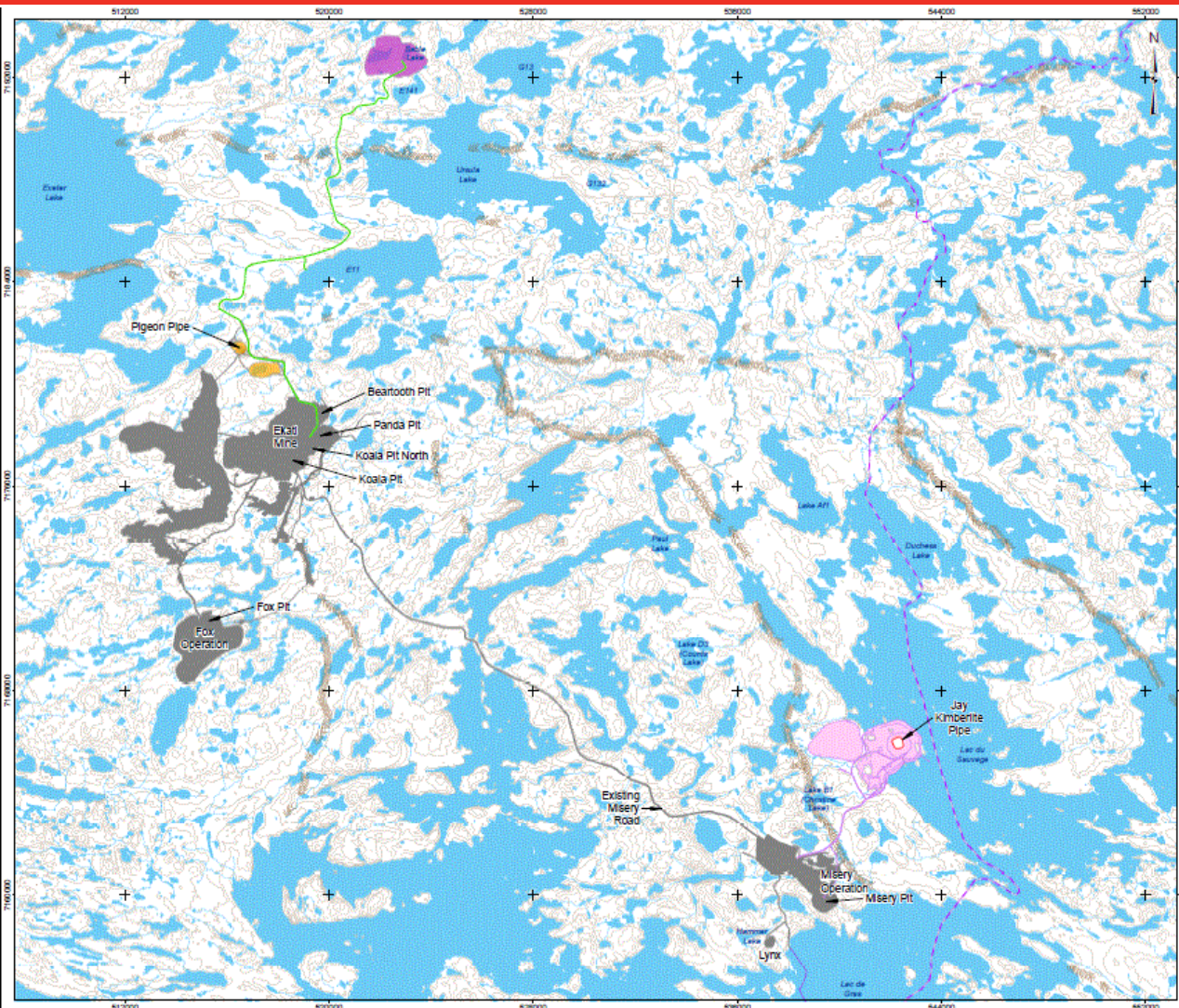
- Continuation of IBAs and community development
- Continued support for TK Activities and community programming
- Continued commitment to Health, Safety, and the Environment

Jay Project – Overview

- The Jay Project is not expected to generate new workforce demand or the social effects associated with population and demographic change.
- Rather, the Jay Project serves to soften the adverse economic and population effects of the closures of the Diavik and Snap Lake Mines over the next decade.



Jay Project - Introduction

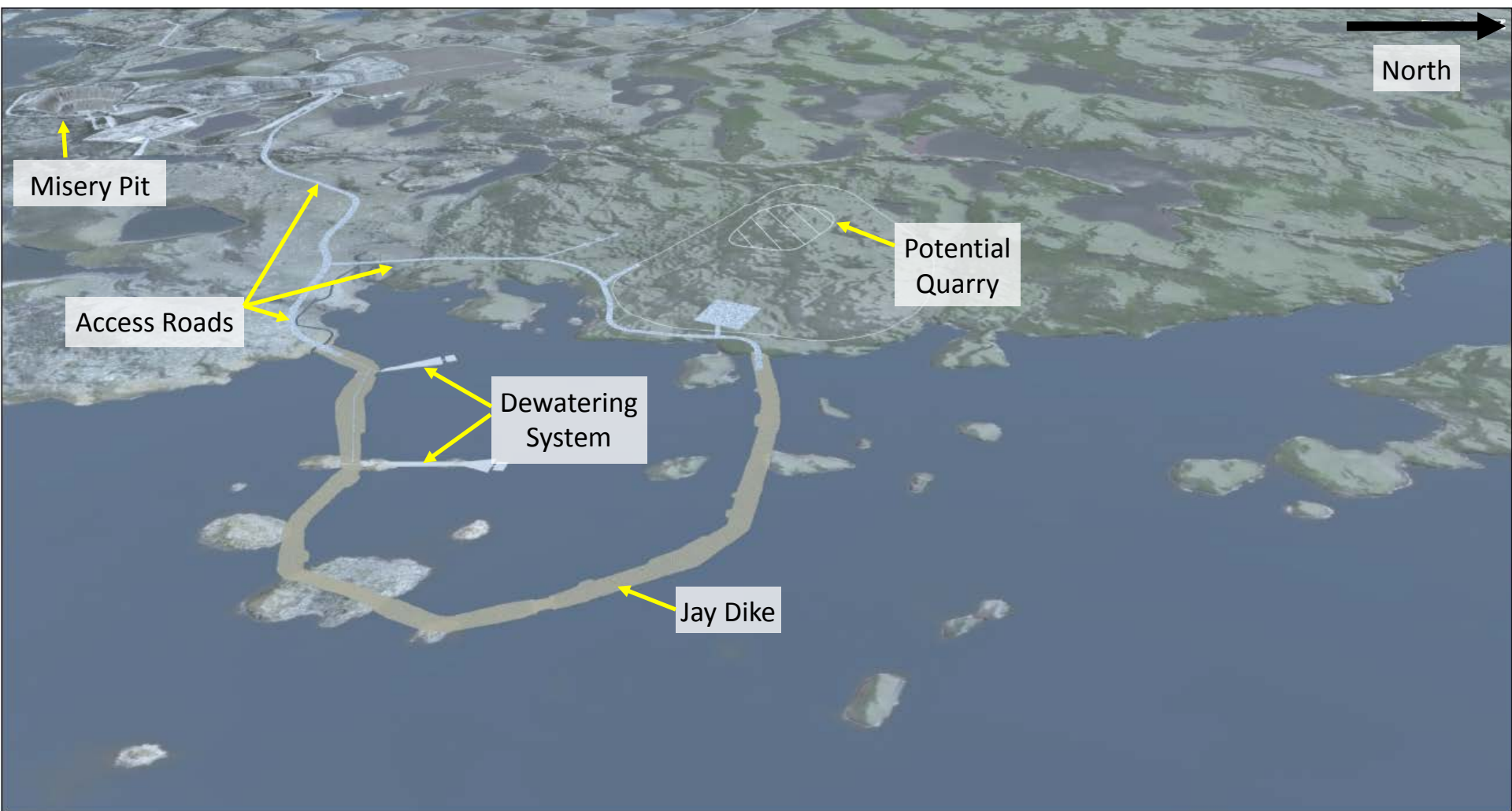


- Jay Project is located:
- 25 km from the main Ekati mine facilities along the Misery Road
 - 7 km northeast of Misery Pit operations

Jay Project Design - Pre-Construction



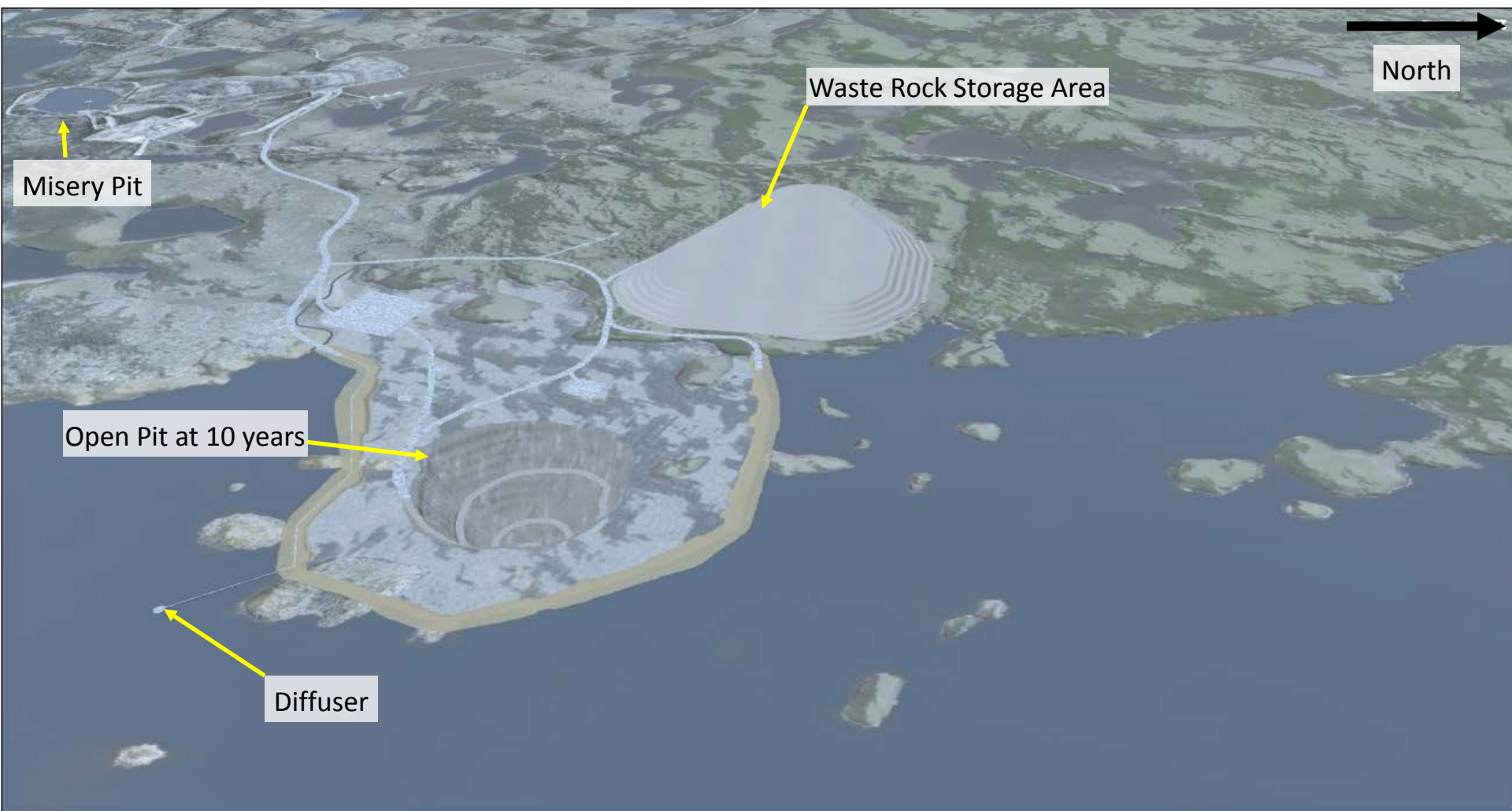
Jay Project Design - Construction



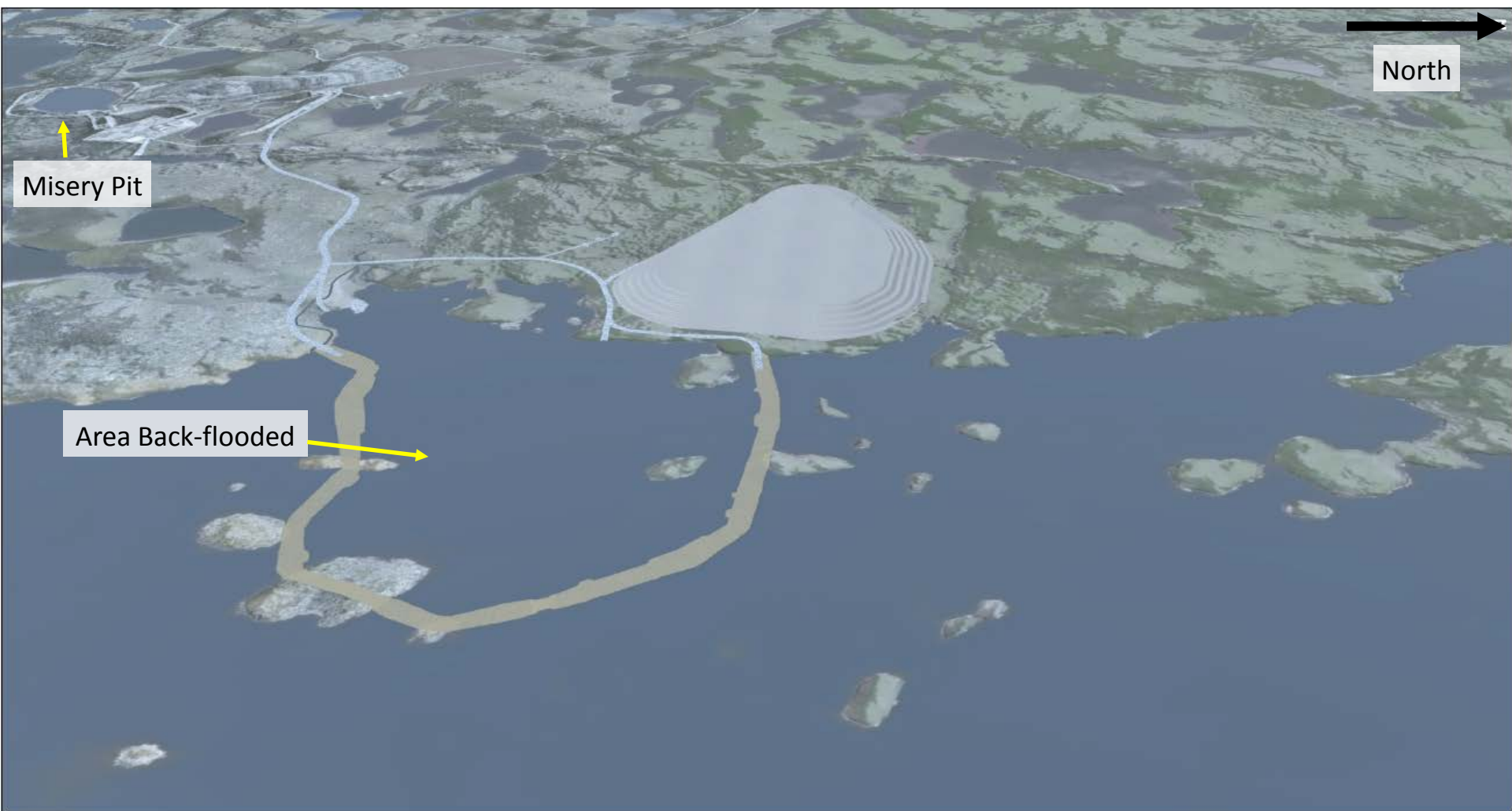
Jay Project Design - Operations 1st Year



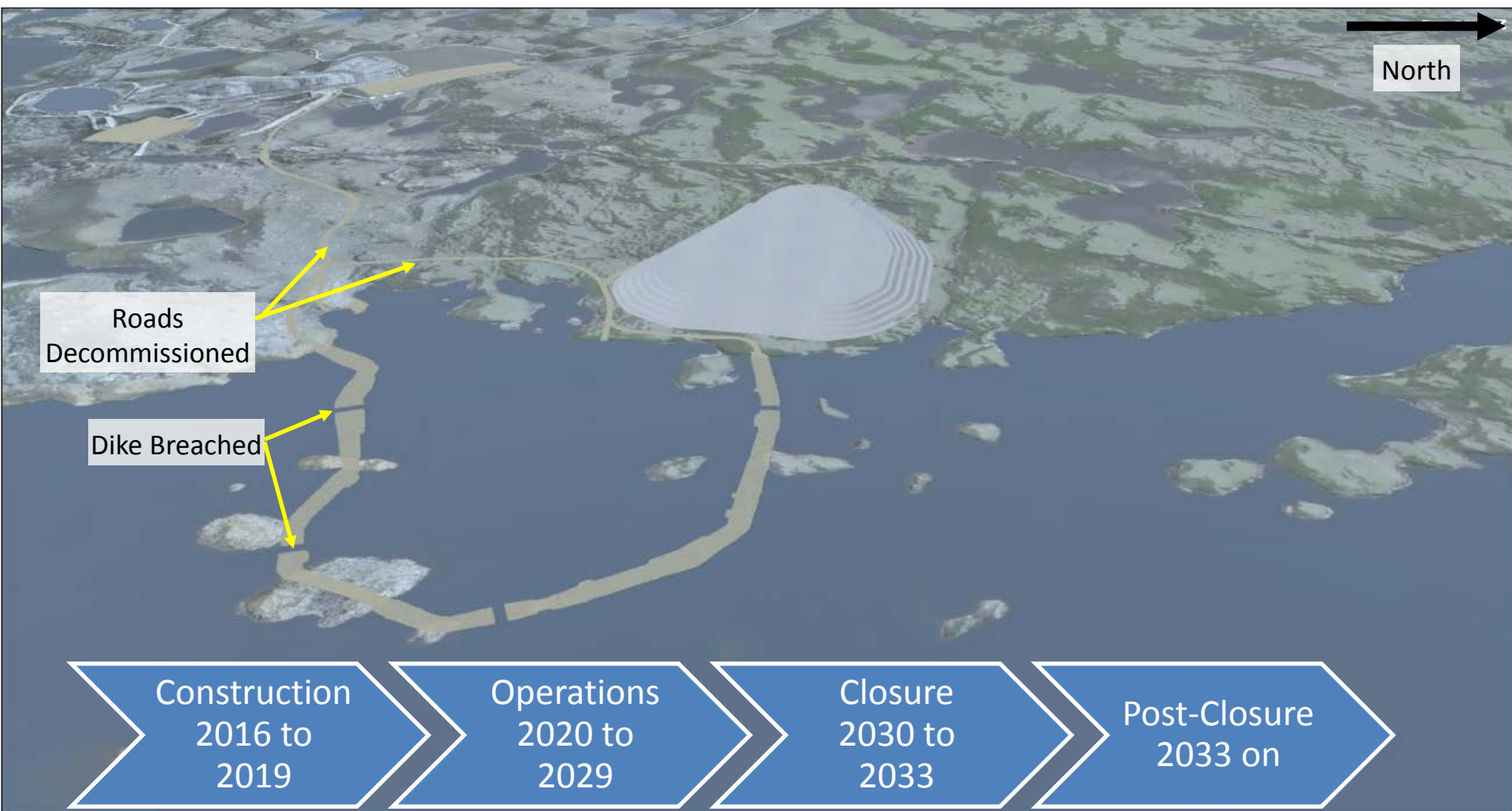
Jay Project Design - Operations 10th Year



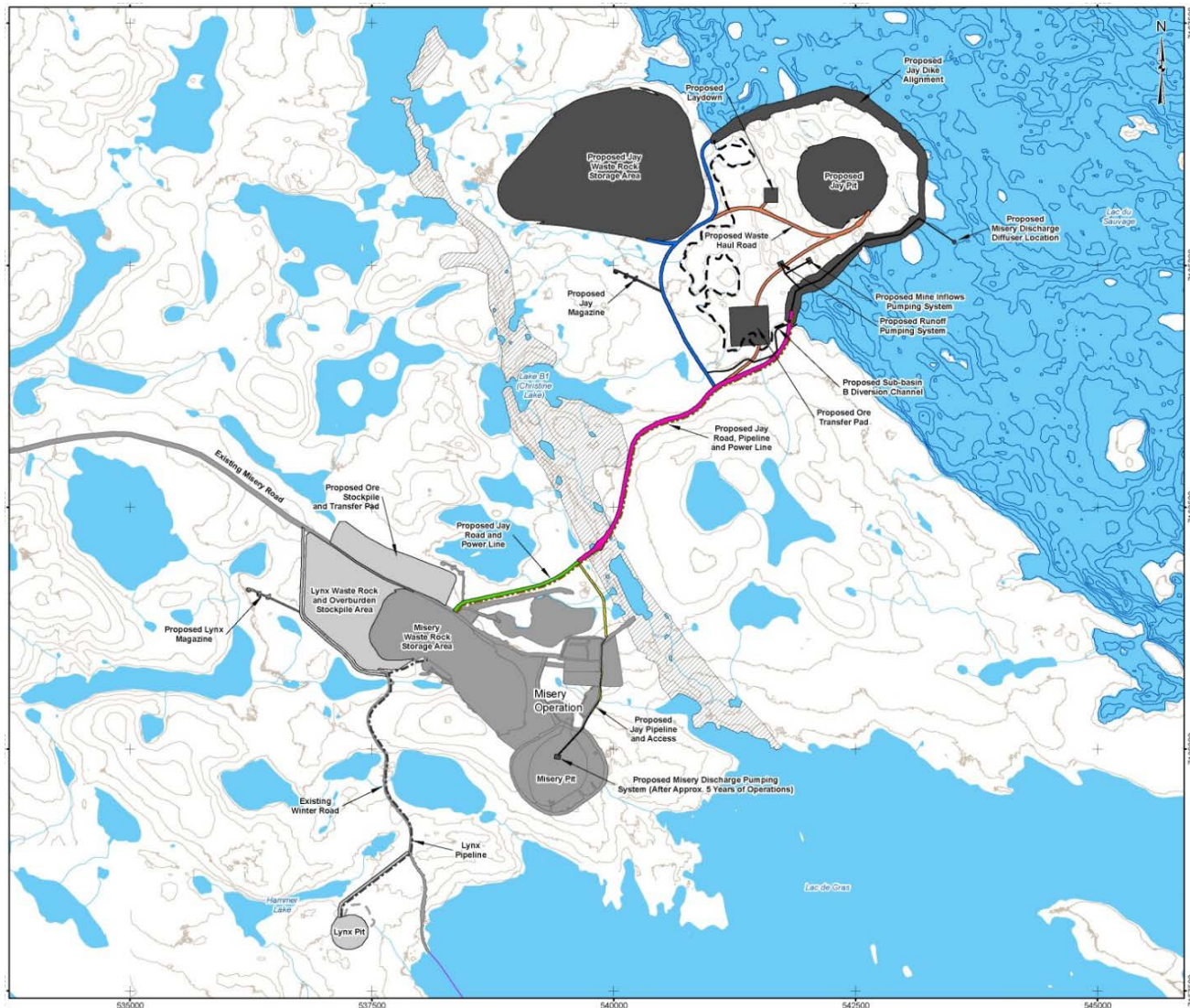
Jay Project Design - Closure



Jay Project Design - Post-Closure



Jay Project - Footprint (Operations)



Jay Project – Extension of Current Mine



Extending the existing mine,
using existing infrastructure

The current camp, airstrip,
processing plant, Misery
Road and other
infrastructure will be used
for the Jay Project

Other Ekati Mine areas will
be reclaimed during mining
of the Jay Pipe

Jay Project – Closure and Reclamation

- Processed kimberlite will go in open pits where mining is complete
- Reclamation of Long Lake Containment Facility can begin



New growth
at Long Lake
Containment
Facility Cell B

Response to Recommendations of the Technical Reports

Dominion Diamond responded to a total of 93 recommendations from regulatory agencies and community organizations in the Technical Reports

- Dominion Diamond agreed fully to 46 (50%) of these recommendations and agreed in part to another 26 recommendations
- Dominion Diamond will provide further information on the outstanding recommendations over the next three days
- Dominion Diamond is committed to future engagement through the permitting process

The Public Hearing presentations are focused on:

- Summarizing additional information made available since the Technical Sessions (April 20 to 24, 2015)
- Key responses to Technical Reports submitted by parties in August 2015

Recommendation: Jay Waste Rock Storage Area (WRSA)

Recommendations:

To minimize impacts from the WRSA:

- Include Tłıchq Elders in the location and design of all caribou emergency egress ramps, and application of the findings from the Tłıchq Study on eskers (Tłıchq-5)
- Develop a revised Waste Rock and Ore Storage Management Plan (WROMP) and submit to the WLWB, including adaptive management (Tłıchq-5, IEMA-13, LKDFN-7)

Responses:

- Dominion Diamond agrees to seek input from Tłıchq Elders and representatives of other IBA communities related to design of the egress ramps (DAR-Tłıchq-IR-29, DAR-MVEIRB-IR-85)
- Dominion Diamond appreciates input provided by the Tłıchq Study on eskers and the participation of Tłıchq Elders
- Dominion Diamond has indicated that the Jay Project will be incorporated into the Ekati Mine WROMP
 - A conceptual amendment for the WROMP was prepared (June 1, 2015) and an engagement workshop was held on June 26, 2015
- A detailed design for the WRSA will be prepared as part of the permitting process, which will provide information on design, construction, monitoring, and management

Recommendation: Jay WRSA – Sediment Management

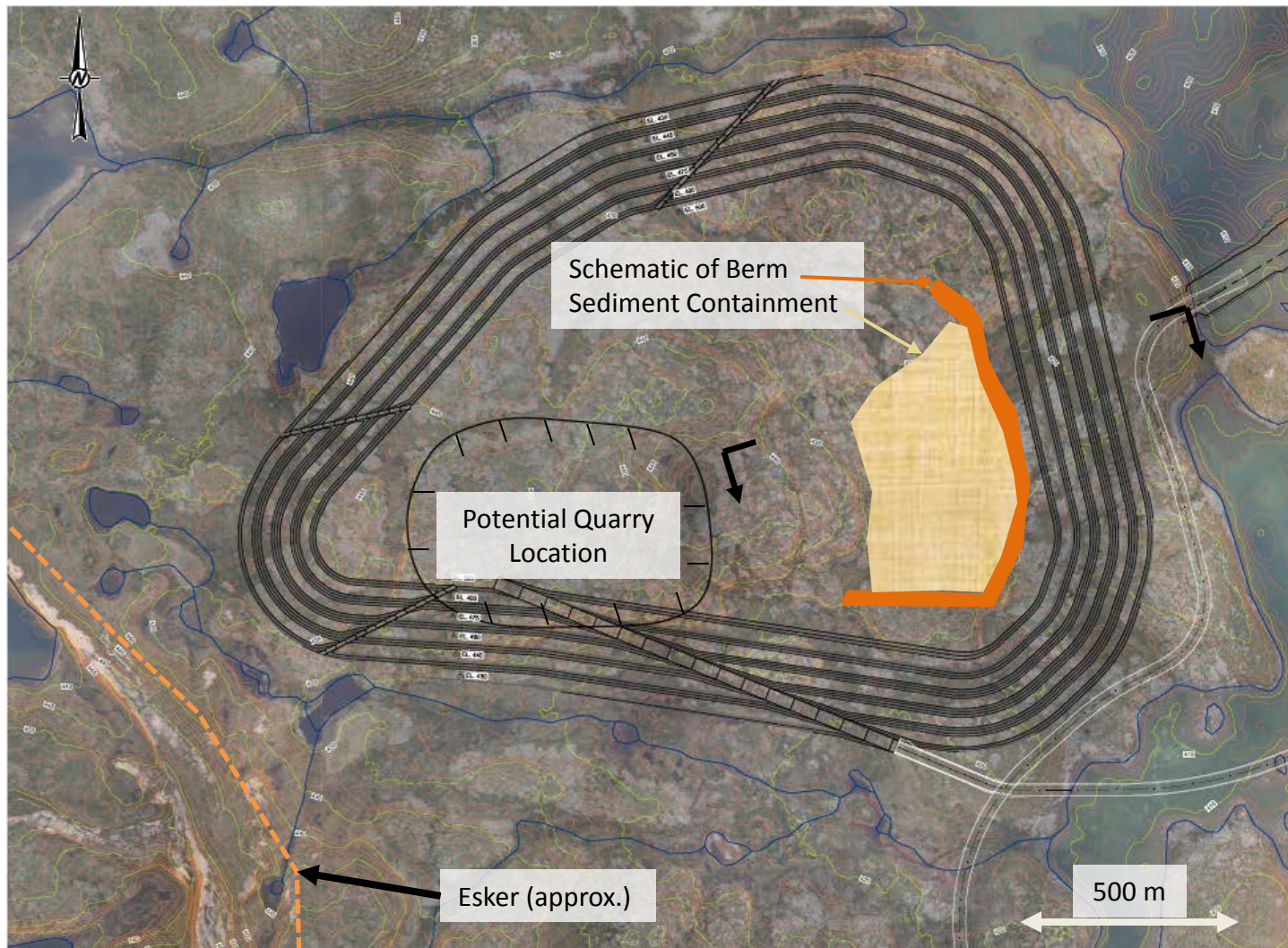
Recommendation:

- Specific details for the management of sediments contaminated with mercury, along with specific measures to prevent mercury from entering any water bodies (LKDFN-8, IEMA-7)

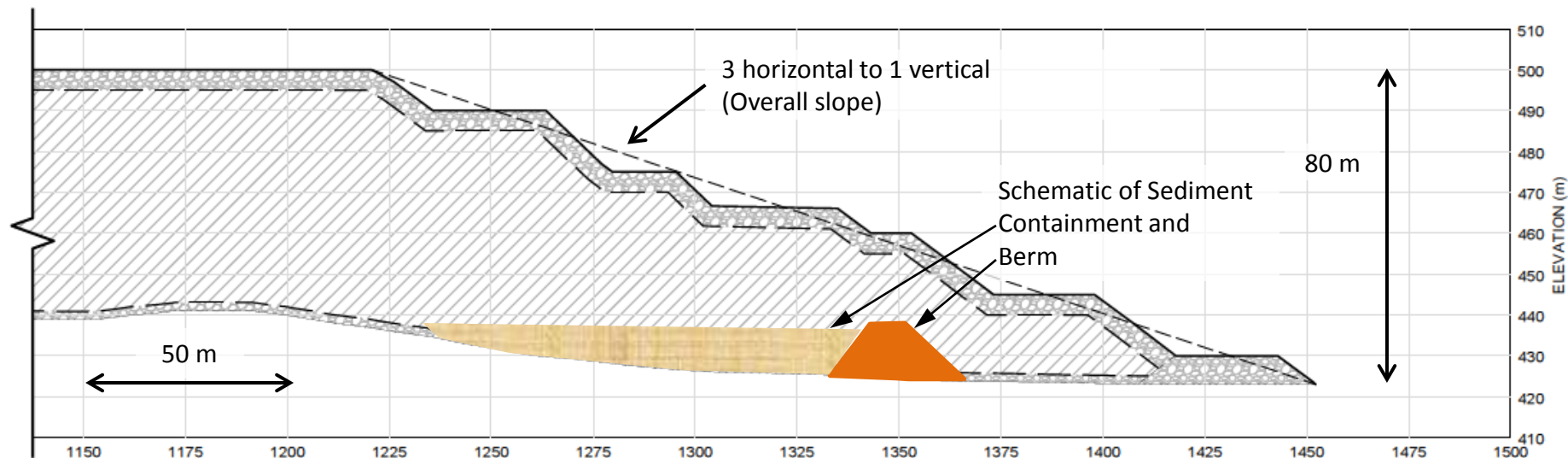
Response:

- Soils excavated as part of dike construction and pre-stripping for pit development will be managed in the Jay WRSA:
 - sediments (softer and have higher water content)
 - competent soils (i.e., glacial till) with lower water content
- Sediments will be placed within the quarry, if developed, or contained by berms constructed of (till and/or waste rock) for stability, and ability to manage seepage
- Soils will be covered by waste rock
- Details will be provided in the WRSA design report and updated WROMP

Jay Waste Rock Storage Area



Jay Waste Rock Storage Area Section



LEGEND



Non-potentially acid generating waste rock



Co-deposition of waste rock (potentially and non-potentially acid generating)

Recommendation: Jay Road – Route Selection

Recommendation:

- Route selection, minimization of traffic volume and road design barrier effects to wildlife (IEMA-1, Tłjchq -1 and Tłjchq -4, NSMA-10, YKDFN-1a)

Response:

- Dominion Diamond disagrees with the recommendation to use Alternative 4
- Route selection analysis of four alternatives was carried out and the selected route (Alternative 3) was based on a combination of factors:
 - minimizes barrier effects to caribou (esker crossing location, inclusion of caribou crossings)
 - health and safety considerations (avoidance of Misery Camp)
 - operations (lower grades)
 - other environmental factors (shorter distance – greenhouse gases, dust)
 - consistent with feedback received during community engagement and input from TK holders regarding least impacts to caribou (DAR-MVEIRB-UT-02)
- Selection of a route where the esker has a natural depression and is narrow, pipelines will be buried, and powerline will remain above ground
- Where possible, Jay Road will be built with caribou crossings, however, not where a berm is required or where pipeline needs to be exposed (i.e., valves, drains)

Recommendation: Jay Road – Pipelines and Powerline

Recommendation:

- Bury pipelines and power line (IEMA-1, NSMA-10, Tłjchq -1, Tłjchq -3, YKDFN-1c)

Response:

- Dominion Diamond has agreed that the pipelines will be buried through the esker cut
- Dominion Diamond disagrees with the recommendation to bury the powerline
- Dominion Diamond has agreed that wherever feasible, caribou crossings will be constructed along the Jay Road. Note it will not be feasible in areas where road fill thickness exceeds 3 m, or at specific locations of the pipeline (i.e., valves and drains)

Recommendation: Jay Road – Esker Crossing Alternatives

Recommendation:

- Esker crossing that involves selection of less critical habitat, one-way traffic, buried power lines, and other innovative approaches (IEMA-1, Tłjchq-1, Tłjchq-4, NSMA-10, YKDFN-1c)

Response:

- Dominion Diamond disagrees with the recommendation to use one-way road traffic at the esker, due to:
 - potential health and safety risks, in particular during summer dike construction with heavy volume, and potential to impact construction schedule
 - minimal difference in cut size (8.3 m base width difference, of the overall 37.4 m width)
- Dominion Diamond disagrees with the construction of an overpass for caribou at the esker (MVEIRB-IR-86):
 - Larger impact to the esker (would require cut, plus fill on abutments of overpass – 10 m or more above current esker elevation), fencing to direct caribou to single crossing
 - Inconsistent with feedback received from communities: minimizing barriers to caribou, thereby allowing caribou to cross in multiple areas along the road; minimizing disturbance to esker; and ability to reclaim esker at closure
- The selected route cuts through the esker where there is a natural depression and where it is narrow; therefore, this is the most appropriate location and design based on community feedback, mitigating effects to wildlife, and mine operational considerations

Jay Road – Mitigations

Mitigations to reduce barrier effect of road to caribou behaviour and migratory movements:

- Route selection provides smallest impact to esker
- Combined alignment of road, pipelines, and powerline minimizes habitat loss and fragmentation
- Alignment allows for most of the road to be developed as a caribou crossing
- Dominion Diamond engaged with members of the IBA communities, including aerial and on-the-ground reconnaissance, to gather input on the route with the least impacts to caribou and the esker
 - feedback was incorporated into the proposed alignment and design of the Jay Road
- Further engagement with all Parties involved in the EA process included two workshops to discuss the Caribou Road Mitigation Plan and one workshop to provide input on the Wildlife Effects Monitoring Plan (revised version submitted July 31, 2015)
- Key outcomes were the identification of progressive actions (trigger/action levels) to reduce barrier effects caused by traffic volume on the roads, such as
 - wildlife always has the right-of-way, radio-collar and visual observations, road surveys, speed reduction, signage, and temporary road closures
- Adaptive management in mitigation and monitoring has been implemented at the Ekati Mine since 1997 and would continue for the Jay Project
- Ongoing wildlife monitoring and reporting, and community engagement and visits to the Mine

Recommendation: Alternative Energy

Recommendation:

- Dominion Diamond should conduct a feasibility study on renewable energy technologies (NSMA 7, LKDFN 22)

Response:

- Since Dominion Diamond has taken ownership of the Ekati Mine, several programs and improvements to reduce emissions have been put in place.
- Dominion Diamond has established a *Greenhouse Gas and Energy Management Steering Committee* comprising of energy leaders in each area of the business.
- Dominion Diamond also commits to conducting a concept study of additional potential investments in alternative energy including areas such as wind and solar energy. This study will be led by Dominion Diamond staff drawing on appropriate external expertise, with a summary of results to be made publicly available within one year of the MVEIRB's Report of Environmental Assessment.

Socio-economic Recommendations – Lutsel K'e Dene First Nation

Recommendation 13 – Communities and Diamonds Commitments:

“LKDFN recommends a clear and explicit discussion of the SEA objectives in every edition of the Communities and Diamonds report. Where progress towards the achievement of an objective is determined to be lagging, there should be a list of clear and concrete measures being implemented to address this shortcoming.”

Recommendation 14 – Transparency

“For increased transparency, LKDFN recommends a report of all meetings between the GNWT and the project proponent regarding socio-economic impacts be shared with all interested parties, omitting any proprietary information.”

Response:

- Dominion Diamond agrees and will collaborate with communities and the GNWT to address this recommendation regarding their SEA-mandated initiative, and will continue to monitor their SEA mandated commitments regarding employment, procurement, and training, and reporting on these annually.
- Dominion Diamond agrees and will work with the GNWT to share minutes from meetings regarding the SEA, as appropriate, excluding proprietary information.

Socio-economic Recommendations – Lutsel K'e Dene First Nation

Recommendation 15 – Community-Level Monitoring of SEA:

“LKDFN recommends a comprehensive monitoring plan for SEA objectives be developed for each of the affected communities in collaboration with the leadership in each community. This plan should clearly describe the methodology used for measuring each indicator within the community, as well as explicitly assigning accountability for each monitoring activity.”

Response:

- The SEA mandates the monitoring of economic indicators (employment, procurement, contracting, training) by the developer, and of social indicators by the GNWT.
- Dominion Diamond is refining how they monitor and report SEA performance, and is open to engaging with communities on further improvements on the approach to monitoring and reporting.
- Dominion Diamond is committed to continuing to report employment, contracting and community development by IBA community through confidential annual meetings with IBA groups.

Socio-economic Recommendations – Yellowknives Dene First Nation

Recommendation 6 – Commitment, Transparency and Reporting:

“YKDFN reiterates that there is significant public concern over the continued decrease in community wellness. In response, YKDFN wants the following.

- 1. Serious commitments from DDEC to meet obligations under the SEA.*
- 2. Inclusion in annual meetings with DDEM and the GNWT regarding the SEA.*
- 3. Written reports on progress against benchmarks and obligations laid out in the SEA.”*

Response:

- 1. Dominion Diamond agrees and is committed to meeting their SEA targets, and is taking measures to try to continually improve SEA performance.
- 2. Dominion Diamond does not agree with recommendation 6-2, as these meetings are confidential to the signatories of the SEA. However, Dominion Diamond is open to continued engagement with communities regarding the improvement of the transparency of discussions with the GNWT on matters pertaining to the SEA.
For example Dominion Diamond has committed to working with the GNWT to share minutes from these meetings with communities.
- 3. Dominion Diamond reports on their SEA performance via the annual SEA report, which, as noted, is currently under improvement.

Socio-economic Recommendations – North Slave Métis Alliance

Recommendation (Measure) 4 – SEA Amendment:

“The GNWT and the Developer shall hold a special Ekati Socioeconomic Agreement Implementation Meeting (“the Meeting”), to discuss and agree on whether they will fully implement the agreement, or amend the agreement. The GNWT and the Developer shall consult the impacted communities prior to the Meeting, in order to reflect their concerns in the implementation strategy or the amendment. The GNWT and the Developer shall invite the impacted aboriginal parties to the Meeting as observers. The Meeting shall be held prior to the issuance of Type A Water Licence for the Project.”

Response:

- Dominion Diamond understands that this recommendation has been resolved between the GNWT and the NSMA.

Socio-economic Summary

- Dominion Diamond is committed to enhancing the transparency around SEA discussions with the GNWT, and engaging communities regarding the implementation of the existing SEA and continual improvement in reporting.
- Dominion Diamond recognizes the importance of monitoring socio-economic conditions in the NWT, and is committed to continuing to monitor those indicators identified as the purview of the developer by the SEA.
- Dominion Diamond also recognizes the importance of monitoring other indicators identified by the SEA as the purview of the GNWT, such as the health and wellbeing of the population, and will continue to support initiatives such as the Communities and Diamonds program.

Draft Air Quality and Emissions Monitoring and Management Plan

- Dominion Diamond submitted a draft Conceptual Air Quality and Emission Monitoring and Management Plan (AQEMMP) for the Jay Project to the MVEIRB public registry on June 1, 2015.
- The draft AQEMMP incorporated the concept of adaptive management based on feedback from the April 20-24 Technical Sessions.
- An initial workshop on the draft AQEMMP with regulators and communities was held on June 26, 2015 and a follow-up technical workshop on July 20, 2015.
- Dominion Diamond has committed to further engagement on the AQEMMP following the Environmental Assessment approval and prior to construction of the Project.

Recommendation: Significance Determination

Recommendation:

- Board make a determination that the Jay Project would have significant adverse cumulative impacts on air quality.

Response:

- Dominion Diamond does not agree with the recommendation.
- Predicted NO₂ exceedances are infrequent (<2 days/yr) and confined to small area adjacent to haul roads (<500 m from the roads); therefore, effect of NO₂ emissions not significant.
- The predicted TSP and PM_{2.5} exceedances primarily caused by fugitive road dust from traffic on haul roads; approach used for emission estimation and modelling of these sources known to be overly conservative.
- Monitoring data from existing northern diamond mines have shown that the measured values are typically well below the model predicted values when the influence of wildfires is excluded.
- The predicted TSP and PM_{2.5} exceedances are confined (<6 km from the Project) within the local study area; and the effects on air quality are temporary (during the life of the Project) and reversible (ceased at the end of the Project life).
- Local, reversible, and conservatively estimated changes to air quality should not be considered significant effects on air quality.
- Furthermore, the monitoring and adaptive management approach included in the AQEMMP (based on the NWT Ambient Air Quality Guideline) will enable appropriate mitigation actions before a significant environmental effect occurs.

Recommendation: Waste Incinerator Emission Monitoring

Recommendation (GNWT-2):

- *DDEC must submit any waste incinerator stack test results to ENR and EC within 45 days of completing a stack test.*
- *In the event of a failed stack test, DDEC must develop and submit to ENR and EC an Adaptive Management Response Plan (AMRP) describing the cause of the failed test and methods to rectify the situation within 90 days of the failed test.*
- *DDEC to re-stack test the incinerators within 6 months of the initial failed test to verify the effectiveness of the AMRP and to demonstrate compliance with the Canada Wide Standards (CWS).*

Response:

- Dominion Diamond agrees with the GNWT recommendations in principle with minor changes in the timing of the responses proposed.
- Dominion Diamond has committed to using waste incinerators that are capable of meeting the CWS.
- Ekati Mine has a Waste Management Plan and recent stack test (June 2013) has demonstrated compliance with CWS.

Recommendation: Air Quality and Dust Management

Recommendation (Tłıchq-6 and IEMA-14):

- Develop a revised AQEMMP (Tłıchq-6, DKFN-2)
- Include communities, regulators, and interested parties in the development of the AQEMMP (Tłıchq-6)
- The AQEMMP shall include adaptive management responses for NO₂, PM_{2.5}, TSP, and dustfall measurements (IEMA-14)
- The AQEMMP shall include snow and lichen sampling (Tłıchq-6, IEMA-14, DKFN-2)

Response:

- Jay Project dust mitigation, monitoring, and management is addressed in the conceptual AQEMMP.
- Existing mitigation, monitoring, and management at Ekati Mine is provided in the Ekati Mine Air Quality Management and Monitoring Plan.
- Dominion Diamond understands the importance of regulator and community input to the development of the AQEMMP.
- Initial engagement with regulators and communities was undertaken through workshops on June 26 and July 20, 2015.
- Additional engagement on the AQEMMP will occur following the Environment Assessment approval and prior to construction of the Project.

Recommendation: Compliance with NWT Ambient Air Quality Guideline

Recommendation:

- DDEC shall adhere to the NWT Ambient Air Quality Guideline (NSMA-11, MVEIRB-IR2-28)

Response:

- Dominion Diamond agrees and intends to apply NWT Ambient Air Quality Guideline as standards for the purposes of air quality monitoring and management at the Project.
- The adaptive management approach in the AQEMMP includes trigger levels set at various percentages below the NWT guideline values. Appropriate management action will be taken if monitoring data exceeds a trigger level.
 - Dominion Diamond has committed to trigger levels recommended by the GNWT (see responses to GNWT-1, NSMA-12)
- The adaptive management approach will enable appropriate mitigation actions before a significant environmental effect occurs.

Air Quality Summary

- DDEC is committed to develop a AQEMMP for the Jay Project that will include an adaptive management approach.
- Initial engagement with regulators and communities on the development of the AQEMMP has begun, and additional engagement will follow.
- Dominion Diamond intends to apply NWT Ambient Air Quality Guideline as standards for the purposes of air quality monitoring and management at the Project.

Dominion Diamond thanks the Parties for their contributions and input during the Project Environmental Assessment Process