

PHASE 2 OF THE HOPE BAY PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Appendix V2-3B

Storyboards Displayed at the May 2016
Community Meetings



Hope Bay Project

TMAC Resources

TMAC
RESOURCES

- a Canadian mineral exploration and development company with offices in Cambridge Bay, Yellowknife, and Toronto.
- bought the Hope Bay mineral tenures from Newmont (Hope Bay Mining Company) in 2013.
- currently developing the Doris Project.
- focus is the wider development of the Hope Bay Greenstone Belt including Madrid and Boston deposits, which would become new gold mines.
- the Hope Bay Project is undergoing an environmental impact assessment (EIA) with the Nunavut Impact Review Board (NIRB) to get approval to mine Madrid and Boston.



TMAC's vision is to develop the Hope Bay Project in a responsible and sustainable way. TMAC takes a "Zero Harm" approach, which is protective to people and the environment.

Hope Bay Project

Overview

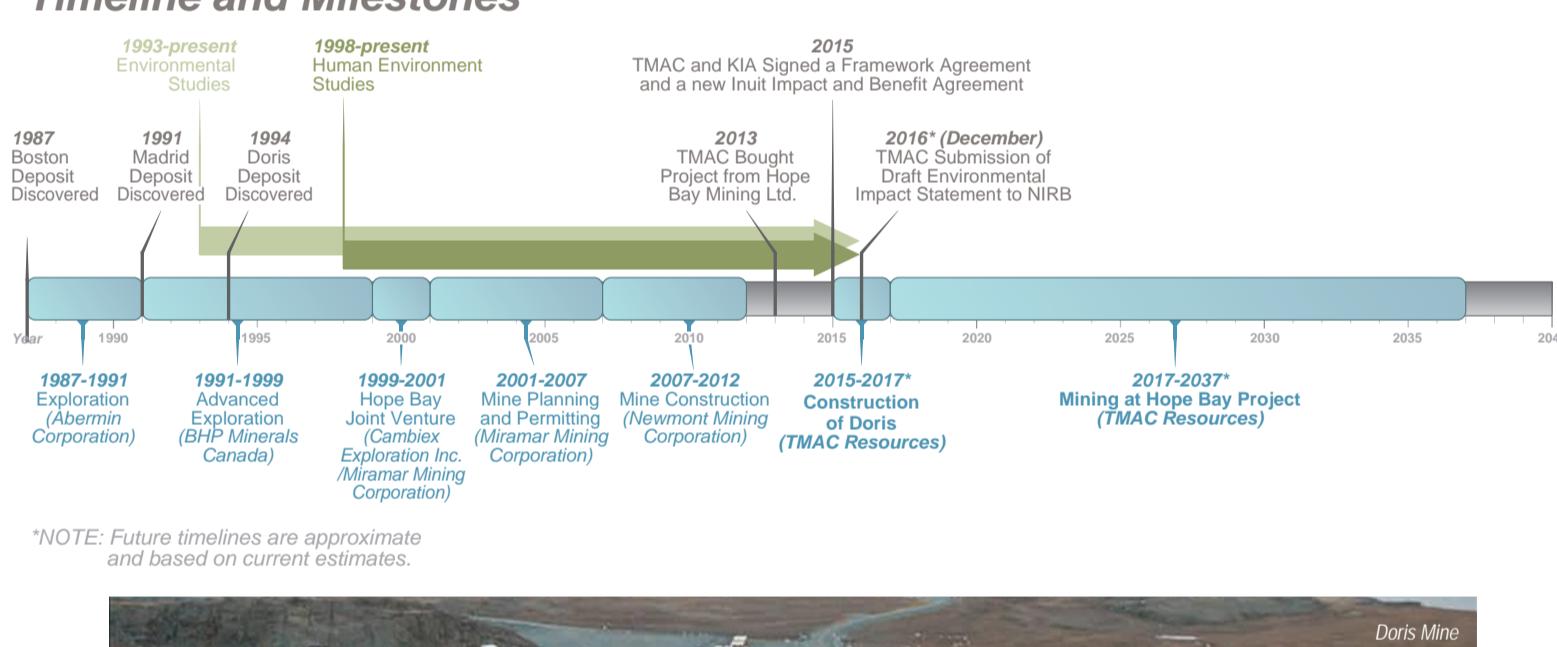


- new underground gold mines that include two areas known to have large amounts of gold: Madrid and Boston.
- the mines would remove approximately 2,000 tonnes of rock per day for approximately 15 years, and will be in addition to the mining that is planned for Doris.
- will use infrastructure at Doris for processing with additional processing infrastructure built as required.

Hope Bay Project Highlights

Minerals	<ul style="list-style-type: none"> gold
Mining Methods	<ul style="list-style-type: none"> waste rock will be put back into the underground mines and stored above ground temporarily
Production Amounts	<ul style="list-style-type: none"> 2,000 tonnes of rock removed per day 160,000 ounces of gold per year for about 15 years
Processing	<ul style="list-style-type: none"> onsite processing at Doris and Boston will produce gold bars
Shipping	<ul style="list-style-type: none"> all-weather winter roads connecting the mining areas gold bars flown out to market use of existing jetty at Roberts Bay
Employment	<ul style="list-style-type: none"> up to 440 jobs per year during operations (for approximately 15 years) fly in-fly out operation from Yellowknife and Kitikmeot 270 staff during peak operations
Economic Benefits	<ul style="list-style-type: none"> approximately \$37 million in royalties from the Hope Bay Project (excluding Doris) mineral taxes approximately \$400 million over the life of the Hope Bay Project for federal, territorial and Inuit taxes (excluding Doris)

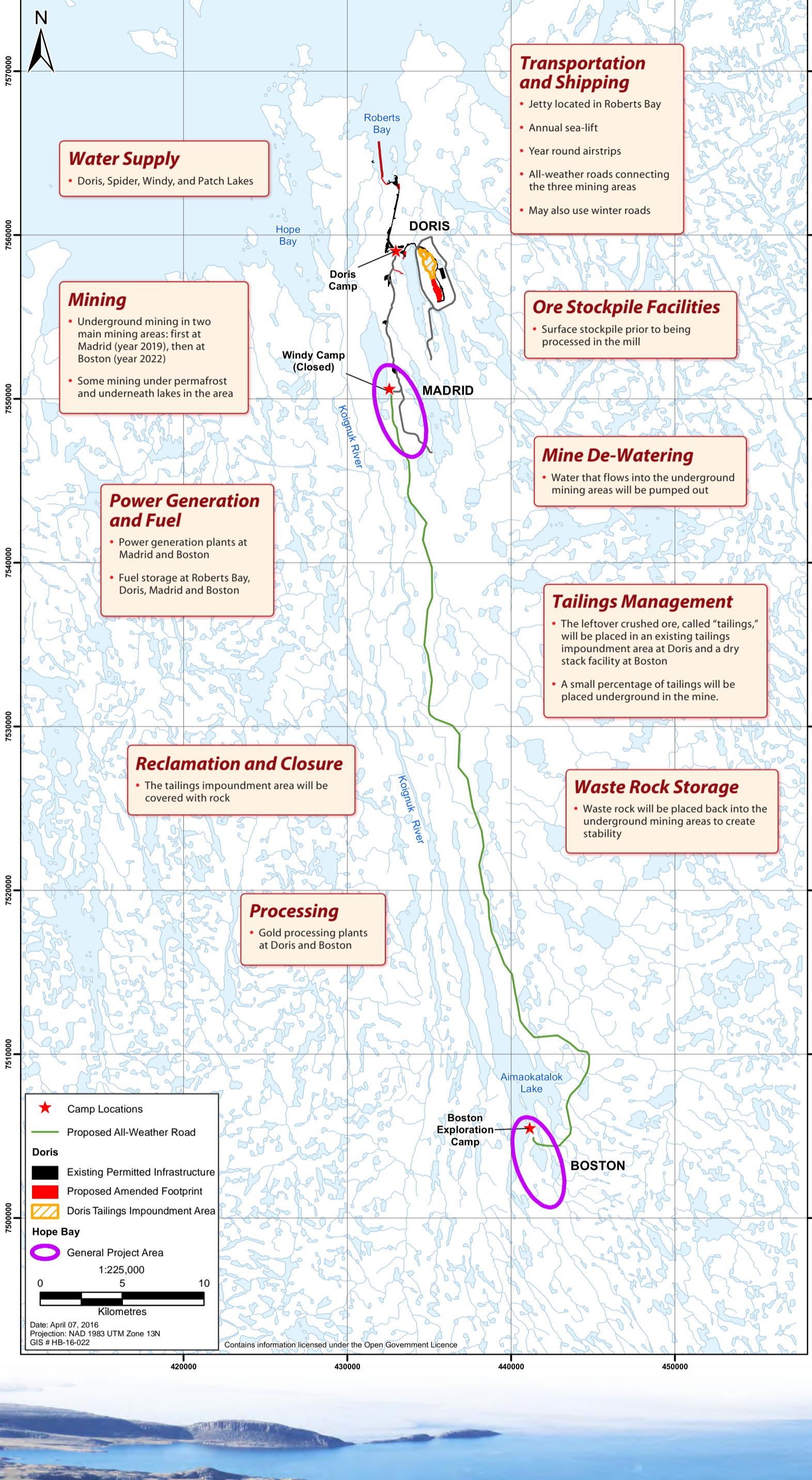
Timeline and Milestones



Hope Bay Project

Site Layout

TMAC
RESOURCES



Hope Bay Project

Environmental Impact Assessment

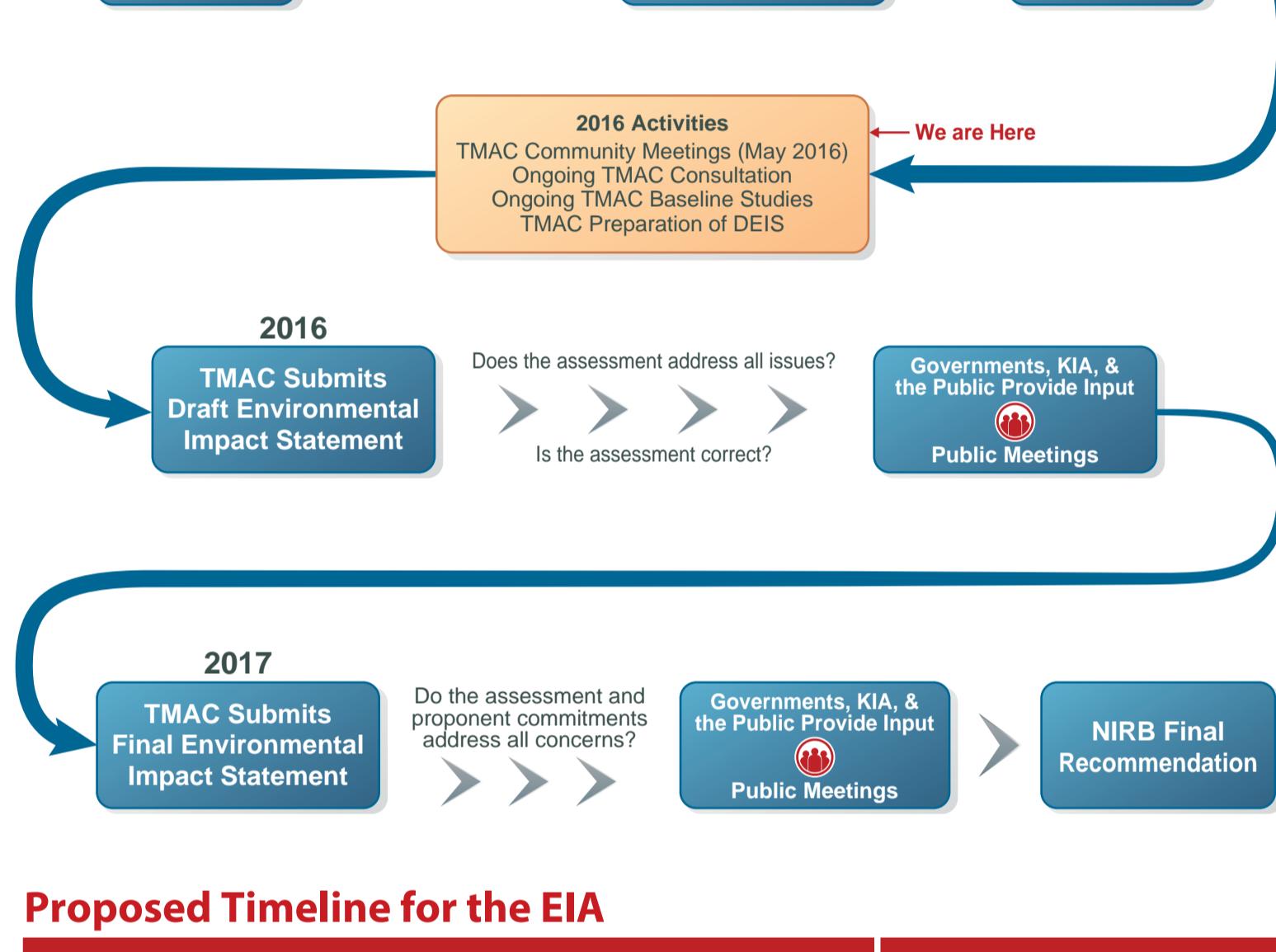


Key components of an EIA

- the Hope Bay Project will undergo an environmental impact assessment (EIA), overseen by the Nunavut Impact Review Board (NIRB).
- TMAC is conducting studies of the environment (land, water, air, animals), heritage and communities (economic, social, health).

- potential impacts of building, operating, and closing the mine on the environment and people will be assessed.
- TMAC will identify ways to reduce harm to the environment and increase benefits to local communities.
- Inuit Qaujimanitugangit (IQ) will be collected and used alongside scientific information in the EA. TMAC has an agreement with the KIA for the sharing of IQ information.

EIA Process



Proposed Timeline for the EIA

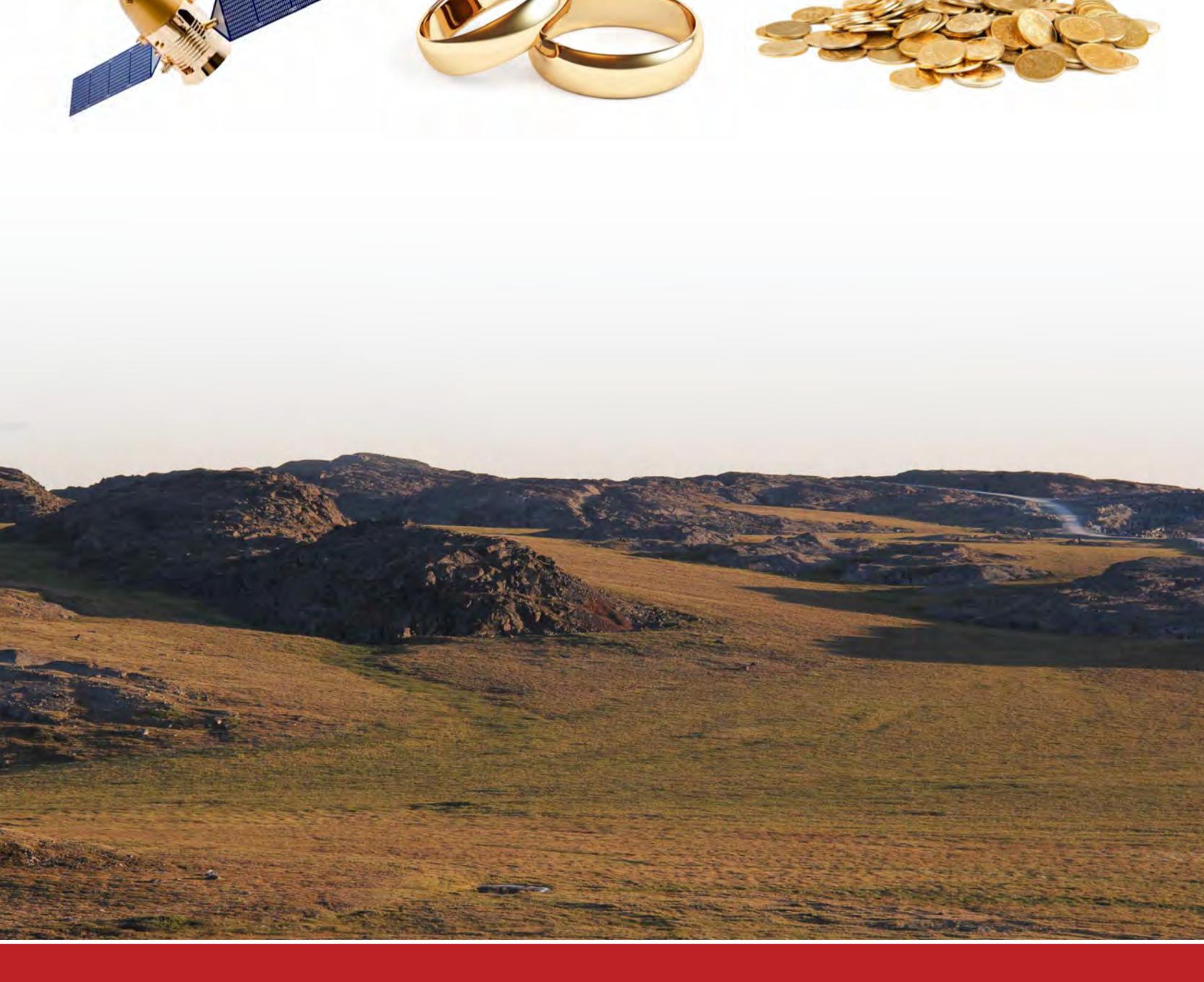
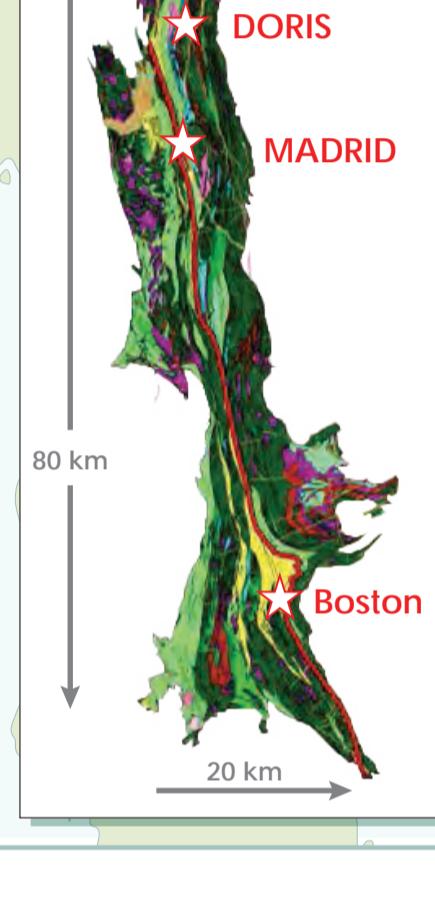
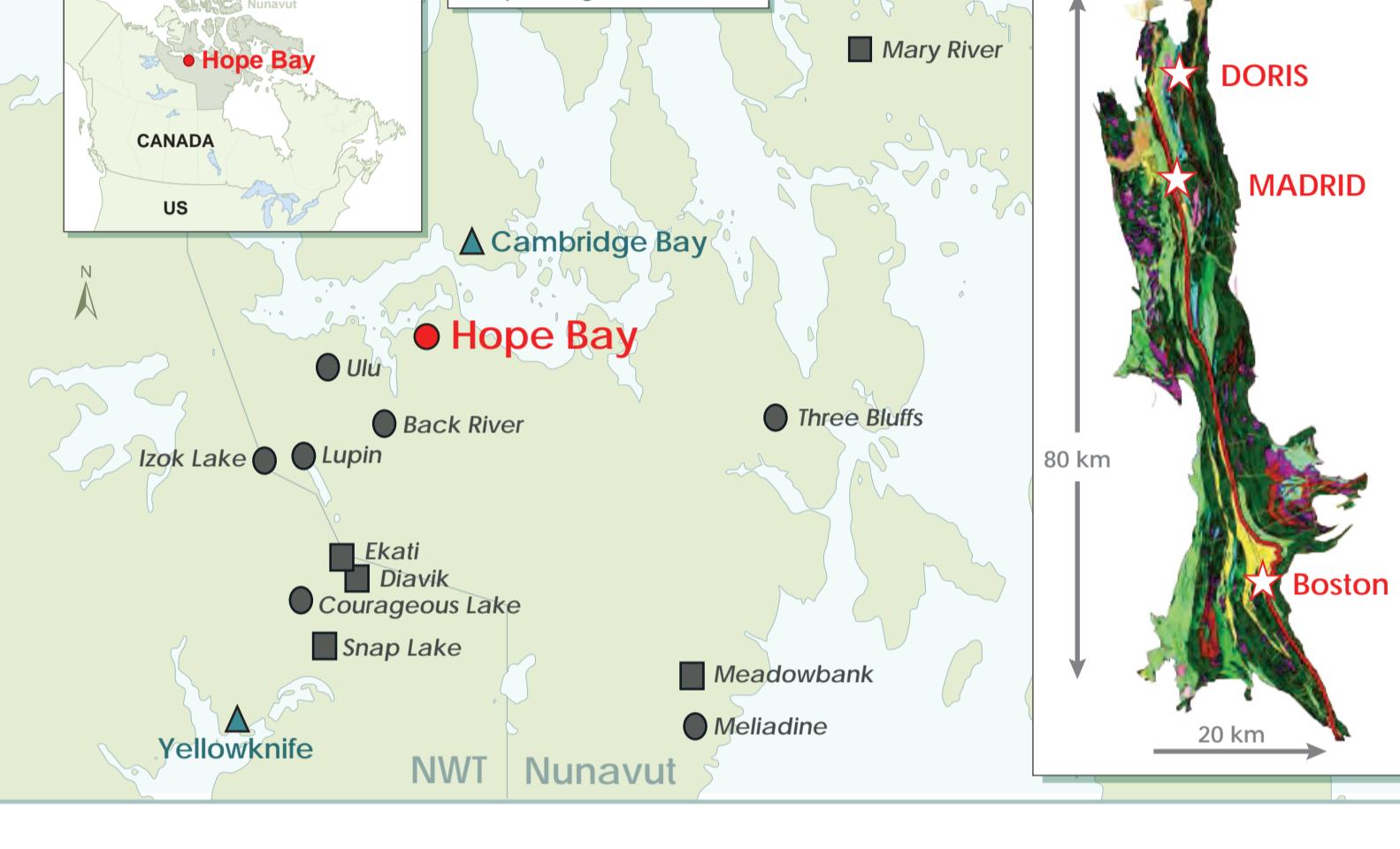
Milestone	Date
NIRB publishes the EIS Guidelines (document that states what information TMAC should be included in the EIA)	December 2012
TMAC submits a Draft Environmental Impact Statement	Estimated 2016
TMAC submits a Final Environmental Impact Statement	Estimated 2017



Hope Bay Project

Geology and Minerals

- the Hope Bay Project is located within a volcanic area known to contain large amounts of gold.
- exploration work has been done, and is ongoing, to understand the geology of the area—the soil, rocks, minerals, and landforms.
- gold is a highly valuable metal that is used around the world, mainly for jewelry but it is also used in electronics and computers, dentistry and medicine, finances and investment, and the aerospace industry.
- gold will be produced on site by grinding the rocks into small pieces and then extracting the gold using sodium cyanide and oxygen.
- the sodium cyanide will be recycled so it can be used to extract more gold.
- the cyanide will be destroyed in the tailings before being placed underground.
- the gold will be made into bars and transported to market by air.



Hope Bay Project

Land and Air



Studies of the land and air in the Project area have been done to understand the conditions of the environment before the Hope Bay Project is built. The following studies have been completed, or are ongoing:

Climate and Weather

- monitoring (since 2003 and will continue throughout the life of the Project)



Air Quality

- monitoring (since 2003 and will continue throughout life of the Project)



Noise and Vibration

- monitoring (2007, 2008 and 2010)



Geology

- studying and classifying geology (since 1965)



Soils

- mapping the land and soils and conducting field studies (1996 to 2010)

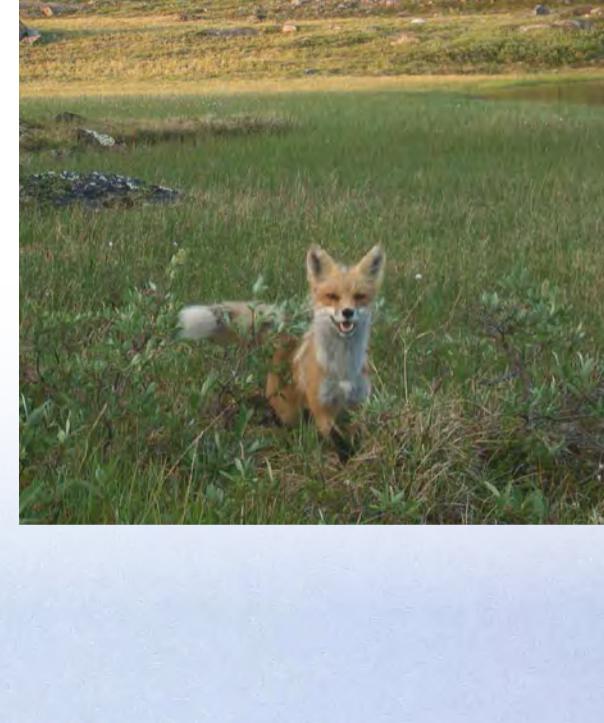
Vegetation

- mapping ecosystems and field surveys (1996 to 1997, 2010, 2014)
- conducting rare plant and lichen surveys (2014)

Wildlife

- monitoring caribou, muskox, grizzly bear, wolverine and other mammals using remote cameras (ongoing)
- monitoring and surveying upland breeding birds, waterbirds, and raptors
- conducting aerial surveys for caribou and muskox (until 2011)
- conducting surveys for seabird nesting (2009 to 2010), and marine mammals (2010 to 2011)

A clear understanding of the existing land and air conditions allows TMAC to understand how the environment could be affected as a result of the Hope Bay Project. This information will be used to make predictions about what impacts could occur and how TMAC can avoid or limit unwanted impacts.



Hope Bay Project

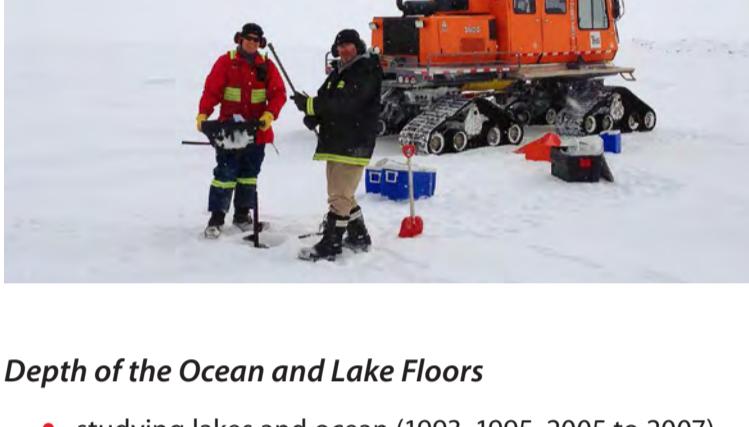
Freshwater and Marine

Studies of lakes, streams, rivers, and the ocean in the Project area have been done to understand the existing conditions of the environment before the Hope Bay Project is built. The following studies have been completed, or are ongoing:



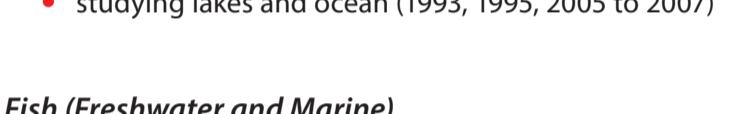
Surface Water Flows

- measuring and monitoring streams (1993-ongoing)
- surveying streams to understand channel shape (1993-ongoing)
- monitoring 12 lakes (1993 - ongoing)



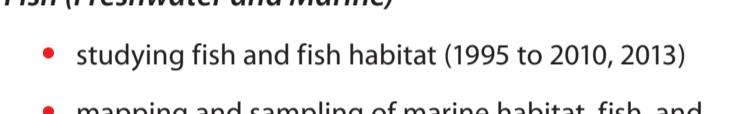
Groundwater Water

- injection tests using hydraulic packer systems (2008, 2010, 2011)
- installation of wells for monitoring groundwater (2010)
- groundwater sampling (2010, 2011, 2012)

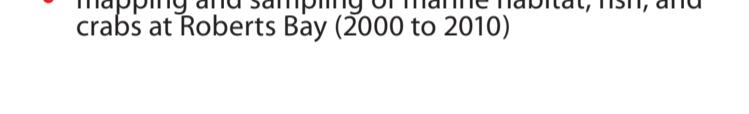
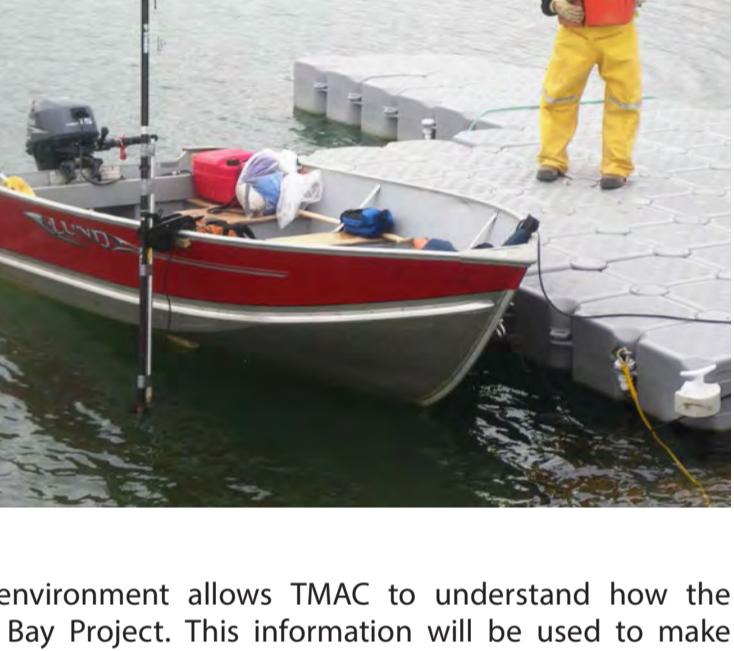


Freshwater Quality and Quantity

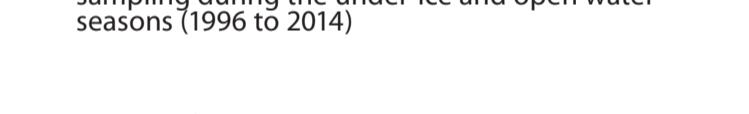
- sampling lakes and streams (since 1995)
- monitoring effects of the Doris mine at 5 lakes and 5 streams



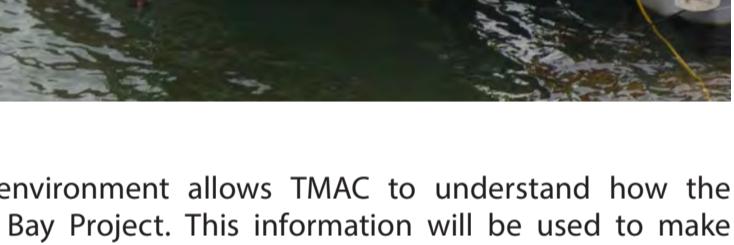
Preparing to survey Roberts Bay



- studying water quality in Roberts Bay, Ida Bay, Hope Bay (2009-2011), Melville Sound (2010), and in Roberts Bay and Ida Bay (2010 to 2014)
- sampling during the under-ice and open water seasons (1996 to 2014)



Surveying at Windy Lake



A clear understanding of the freshwater and marine environment allows TMAC to understand how the environment could be affected as a result of the Hope Bay Project. This information will be used to make predictions about what impacts could occur and how TMAC can avoid or limit unwanted impacts.



Hope Bay Project

Heritage and Communities

Studies of heritage and communities, including land use and health, have been done to understand the existing conditions before the Hope Bay Project is built. The following studies have been completed, or are ongoing:

Archaeology and Heritage

- studying sites in the Project area (1998 to 2015)
 - any archaeological finds or heritage sites will be reported and documented
 - sites are protected under Nunavummiut or Canadian law

Socio-economic (2010, 2011, and 2015)

- conducting research on population, housing, transportation, governance, education, income, and health and social services
- conducting interviews with local service providers

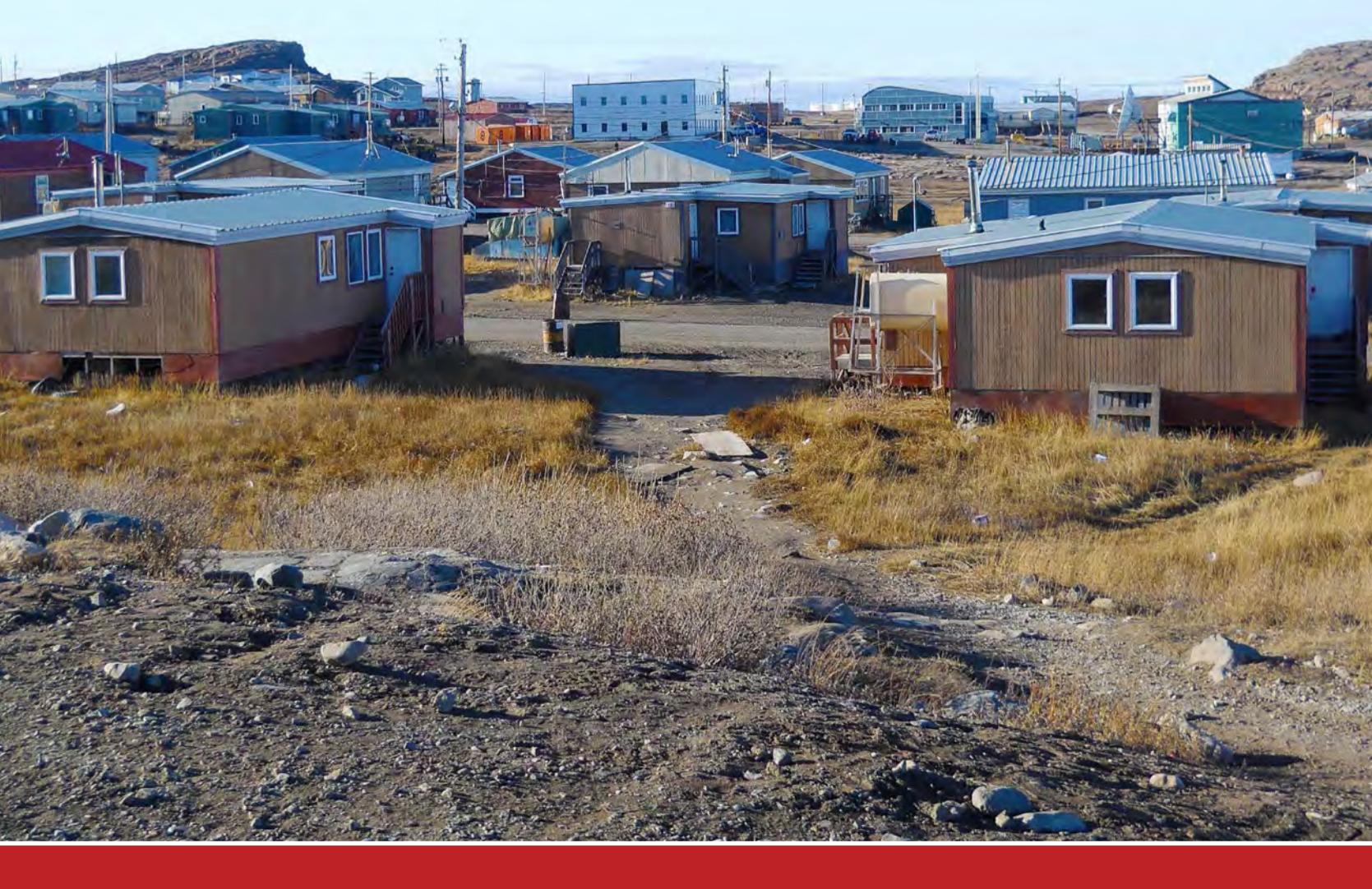
Land Use (2010, 2011 and 2015)

- conducting research on hunting, trapping, fishing, plant harvesting, mining, tourism, transportation, and commercial fisheries
- conducting interviews and focus groups with local land users and HTO representatives

Human Health (ongoing)

- studying wild foods harvested and eaten by people (plants, fish, caribou, marine mammals, birds)

A clear understanding of heritage and communities allows TMAC to understand how people could be affected as a result of the Hope Bay Project. This information will be used to make predictions about what impacts could occur and how TMAC can avoid or limit unwanted impacts, as well as increase the benefits of the Project.

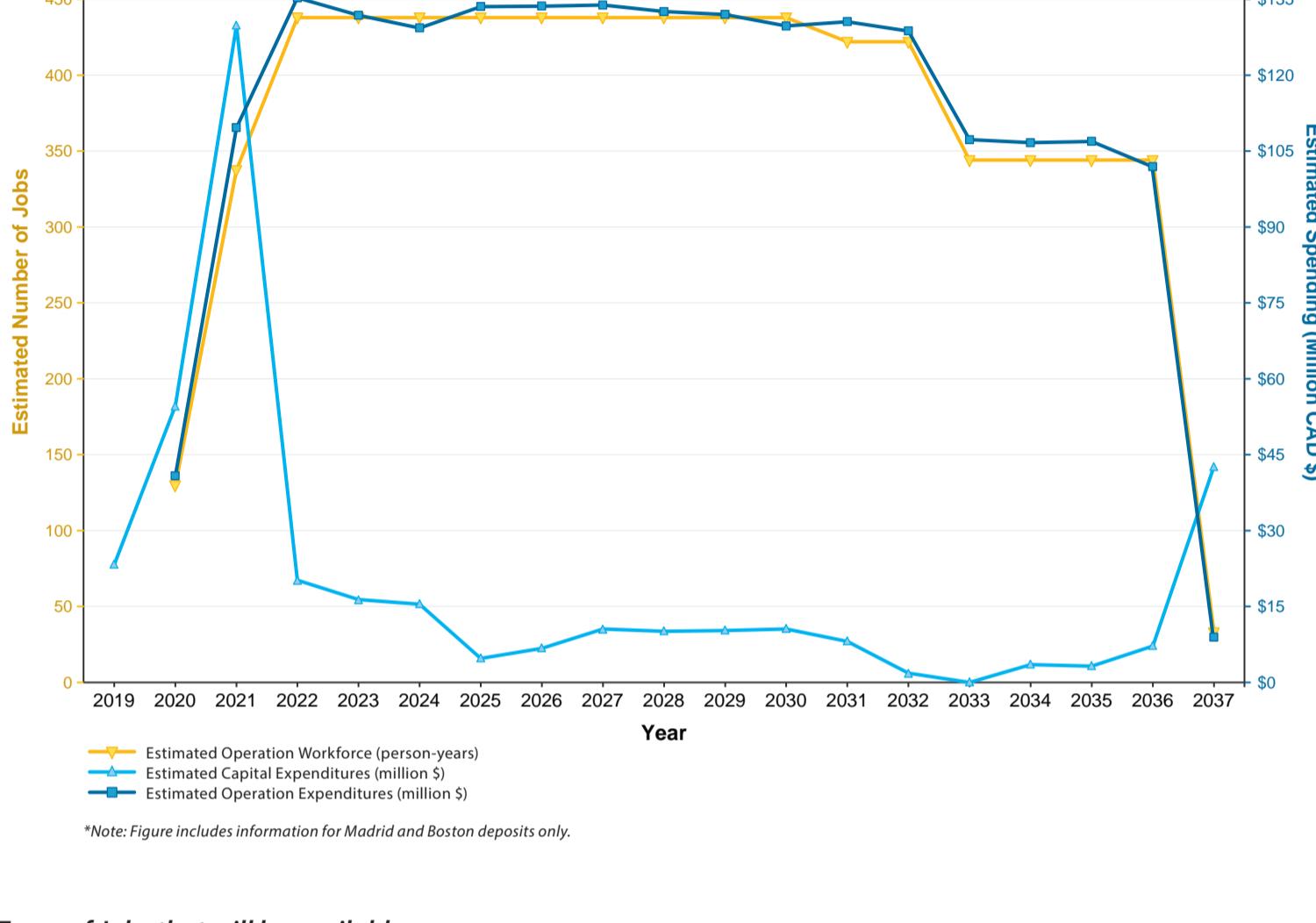


Hope Bay Project

Employment and Training

- up to 450 jobs during construction (2019 to 2021) and up to 440 jobs per year during operations (2020 to 2036).
- workers will be flown in and out, typically on a 2 week on/2 week off rotation schedule.
- workers will be housed in a modern camp with full amenities (Inuit cultural centre including books and videos, recreation lounge, dining hall, health clinic, internet, and single rooms).
- the KIA and TMAC signed a new Inuit Impact and Benefit Agreement (IIBA) in 2015. The IIBA describes how TMAC will support Inuit training and employment.

Direct Project Jobs and Spending*



*Note: Figure includes information for Madrid and Boston deposits only.

Types of Jobs that will be available:

- accountants
- cooks
- drillers and blasters
- electricians
- engineers
- environmental technicians and scientists
- first aid attendants
- heavy equipment operators
- human resources assistants
- janitors
- labourers
- millwrights and industrial mechanics
- nurses
- plumbers
- security guards
- steamfitters and pipefitters
- truck drivers
- underground miners
- welders
- geologists
- mine and mill managers and general foremen



Hope Bay Project

Next Steps



TMAC is consulting with the KIA, HTOs, hamlets, territorial and federal government agencies, and communities about the Project. TMAC's goal is to ensure that the public understands the Project and is able to provide feedback to TMAC about the Project. TMAC values input from all groups about the Project and believes that public input will contribute to the Project's success.

Comments and questions can be directed to:

Alex Buchan
Director of External and Community Relations, TMAC
Phone: 867-983-2385
Email: alex.buchan@tmacresources.com

Feel free to stop by or contact our office:

Cambridge Bay Office
#18 Mitik St. (Kitikmeot Centre)



"We believe that the foundation to building positive relationships with our stakeholders is transparent communication."

- TMAC

