Hope Bay Mining Limited

DORIS NORTH GOLD MINE PROJECT
No Net Loss Plan for the Roberts Bay Subsea Pipeline and Diffuser

NEWMONT™
NORTH AMERICA

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DORIS NORTH GOLD MINE PROJECT

NO NET LOSS PLAN FOR THE ROBERTS BAY SUBSEA PIPELINE AND DIFFUSER

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1. Introduction

Hope Bay Mining Ltd. (HBML) has begun to construct the Doris North Gold Mine in the West Kitikmeot Region of Nunavut, located approximately 125 km southwest of Cambridge Bay. It is on Inuit owned land, approximately 5 km south of Melville Sound. The nearest other communities are the hamlets of Omingmaktok, located 75 km to the southwest, and Bathurst Inlet, located 160 km to the southwest. The mine site is remotely located and is not linked by roads to neighbouring communities or facilities. The general location of the mine site is shown in Figure 1-1.

The mine was initially expected to be in operation for two years, but accessing the Doris Central and Connector resources via the Doris North Portal will result in a 2-4 year expansion of the mine life (see Type A Water Licence No. 04 amendment application). The mine will consist of an underground mine as well as a crushing and milling plant. Ore will be processed using cyanide to recover the gold. Tailings from the ore processing will be treated to destroy residual cyanide and precipitate heavy metals. Following treatment, the tailings will be deposited underwater in the Tailings Impoundment Area (TIA; formerly Tail Lake) through a slurry pipeline from the process plant or undergound. The TIA is located at 68°7′25.8″ north latitude and 106°33′31.2″ west longitude.

The permitted water management plan for the TIA involved the discharge of TIA water to Doris Creek. However, as part of the amendment request for the Doris North Type A Water Licence, it is proposed to discharge treated TIA water into Roberts Bay via a subsea pipeline and diffuser.

Under Section 35(2) of the *Fisheries Act*, an authorization from the Minister of Fisheries is required for any undertakings that may result in the harmful alteration, disruption or destruction (HADD) of fish habitat. As well, in order to maintain the productive capacity of fish habitats, Department of Fisheries and Oceans (DFO) has adopted a "No Net Loss" policy (DFO 1998). Under the *Fisheries Act*, fish habitat is defined as "spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes."

To further the "No Net Loss" principle, DFO has also published a document on "Decision Framework for the Determination and Authorization of Harmful Alteration, Disruption or Destruction (HADD) of Fish Habitat" (DFO 1998), with respect to the *Fisheries Act*, Section 35. This publication outlines the decision processes for authorization of HADD. Within the initial application process, DFO habitat biologists determine if the proposed project could result in HADD. If a HADD could occur as a result of the proposed activities, the next step is to assess if the adverse effects could be fully mitigated. If the adverse effects could be fully mitigated, then a Letter of Advice specifying mitigation would be issued; however, if the potential effects cannot be fully mitigated, then a decision will be made as to whether or not compensation is possible and an Authorization for the HADD may be issued.

The Project that this No Net Loss Plan is intended for is the installation of a subsea pipeline and diffuser in Roberts Bay.

The objectives of this No Net Loss Plan are to:

- Provide DFO with the information it needs to determine if a *Fisheries Authorization* is required for this Project under section 35(2) of the *Fisheries Act*; and
- Propose a strategy for mitigation of fish habitat potentially affected by the construction of the subsea pipeline and diffuser in Roberts Bay (the Project).

Figure 1-1

Doris North Project Location

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2. Project Description

2. Project Description

On June 19, 2008, Tail Lake was placed on Schedule 2 of the Metal Mining Effluent Regulations (Government of Canada 2011). The tailings are anticipated to be covered by a minimum 2 m-deep freshwater cap, but the depth and water quality of this cap will not be sufficient to support fish. A fish-out program will remove almost all of the fish from the lake prior to its conversion to a TIA – any remaining fish will probably be killed by the conversion process.

The currently permitted water management plan for the TIA involves the discharge of TIA water to Doris Creek. However, as part of the amendment request for the Doris North Type A Water Licence, it is proposed to discharge treated TIA water into Roberts Bay via a subsea pipeline and diffuser.

The proposed discharge system will follow existing corridors and pads from the TIA to the Roberts Bay jetty. In order to avoid disturbing sensitive shoreline fish habitat, the pipeline will be installed along the existing jetty in Roberts Bay, emerging at the toe of the jetty. The pipeline will daylight in Roberts Bay at the 4 m isobath, then continue along the bottom, held by concrete ballast weights at 8 m intervals, for approximately 2.4 km to the 40 m isobath (Figure 2-1). "Daylighting" of the pipeline at 4 m depth, well below low water, is required to protect it from ice damage.

Approximately 300 m north of the jetty is a rocky shoal. The shoal is less than 2 m deep and portions are emergent at low tide. At 2 m depth, ice will impact the subsea pipeline; therefore the pipeline route must be diverted to avoid this shoal. It is possible to impart a large radius bend to an HDPE pipe, so the pipeline will curve to the west to avoid the shoal (Figure 2-2).

The subsea pipeline will end in a 20 port diffuser at the 40 m isobath. The TIA discharge will be de-aerated in a head tank on shore in which bubbles can escape to the atmosphere through the liquid surface. This is necessary to avoid air escaping from the diffuser in the form of bubbles. Many species of marine fish show strong avoidance reactions to bubbles (Sharpe and Dill 1997), particularly smaller schooling species such as Pacific herring and capelin, both of which are common in Roberts Bay. Capelin use the nearshore areas of Roberts Bay as a spawning migration route and bubbles from the diffuser could interfere with their migration. De-aeration of the discharge will prevent bubbles from forming in the pipeline.

In summary, an un-insulated (bare) subsea pipeline will be installed in Roberts Bay to discharge the treated TIA water at depth through a diffuser. The outfall will run approximately 2.4 km NNW to the 40 m isobath where it will end in a 95 m long, 20 port diffuser. The subsea pipeline will be ballasted with concrete weights. Lateral ears will be included in the ballast shape to provide habitat for a variety of demersal fish.

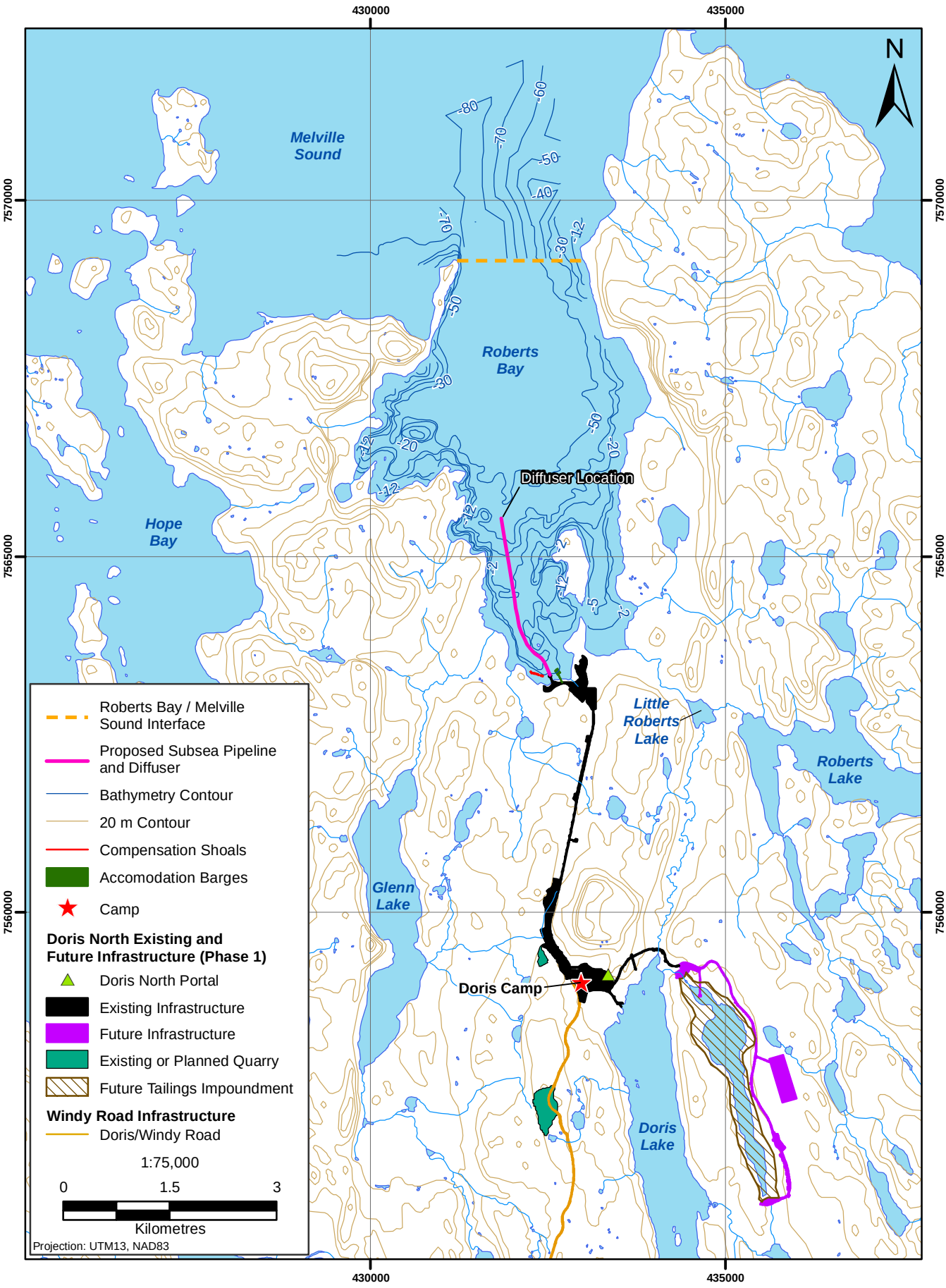

Figure 2-1

Location of Proposed Subsea Pipeline and Diffuser

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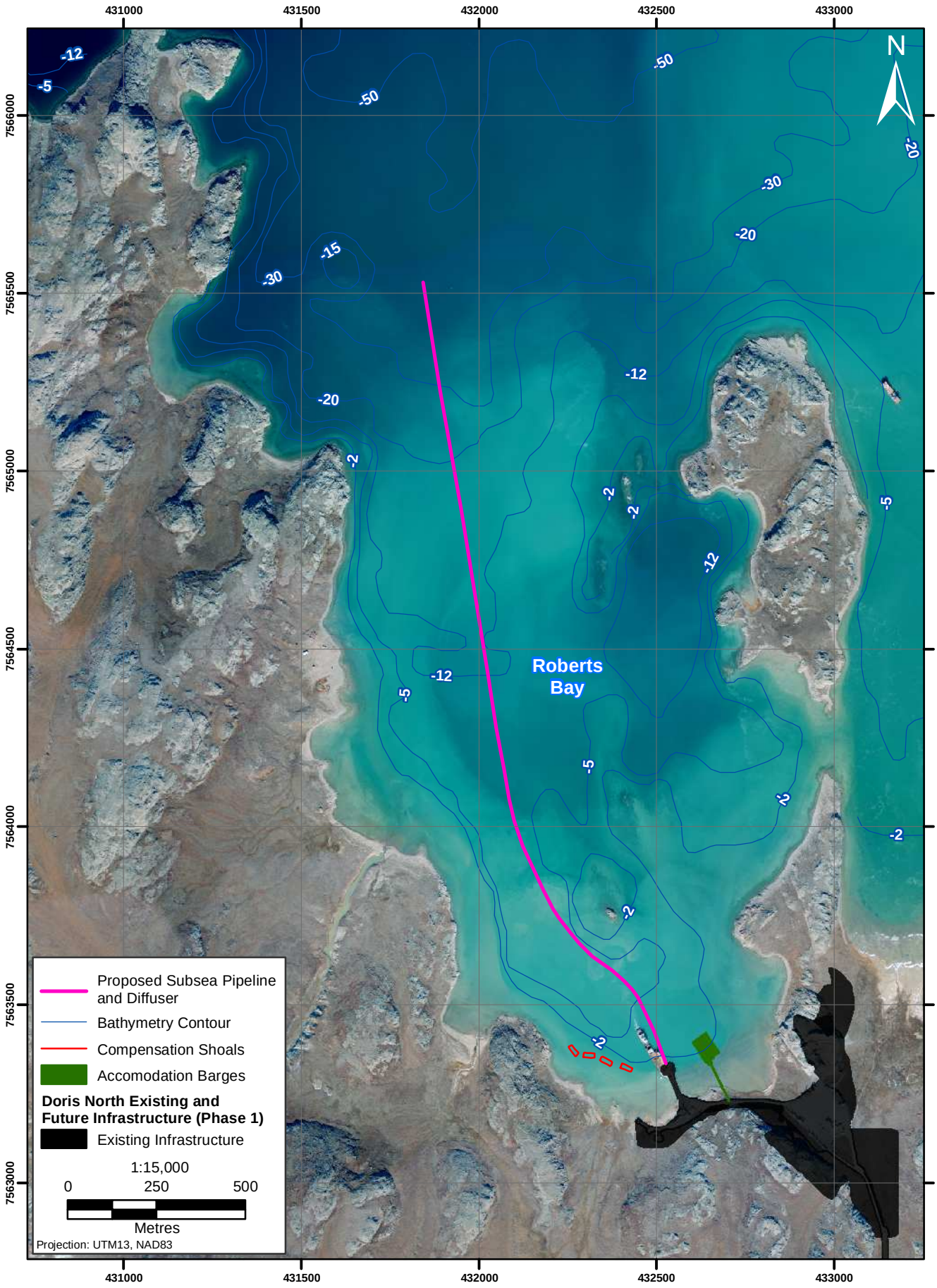

Figure 2-2

Roberts Bay Bottom Topography and Proposed Subsea Pipeline Route

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3. Environmental Setting and Baseline

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3. Environmental Setting and Baseline

Treated TIA water will be piped along the existing road route to the jetty at Roberts Bay. The route has been assessed for fish and fish habitat in the Doris North EIS and in the No 02 Type A Water License amendment (Rescan 2010a) and has been approved by DFO. There are several small streams and ponds along the airstrip and access road area. All water bodies in this area have been surveyed and found to be non-fish-bearing (Rescan 2010a).

The marine portion of the pipeline in Roberts Bay is new to this project and requires approval from DFO. The marine portion of the pipeline is the subject of this No Net Loss Plan.

Roberts Bay is located along the southern shore of Melville Sound, Nunavut, positioned between Hope Bay, to the west, and Ida Bay (Reference Bay), to the east (Figure 3-1). The mouth of Roberts Bay faces north, with a width of approximately 1.8 km and the bay extending 6 km southward. Two main freshwater inputs enter Roberts Bay; Little Roberts Outflow, which enters from the southeast and drains the Doris and Roberts watersheds, and Glenn Outflow, which enters from the southwest and drains the smaller Windy Watershed.

Roberts Bay is frozen for most of the year, with melt typically beginning in June, continuing into July, and re-freezing beginning in late October. In both summer and winter a pycnocline separates the lower salinity water at the surface (20 – 26 ppt) from the higher salinity water at depth (27 ppt). Water temperatures range from as low as -1.4°C during winter to > 10°C at the surface in the summer. Roberts Bay surface water and deep water is generally well oxygenated (Rescan 2011).

Roberts Bay is inhabited by at least 18 species of fish (Rescan 2011). Of those, five of the species do not reside year round in the marine environment; they use the marine environment to feed during the open-water period. These species include Arctic char (*Salvelinus alpinus*), lake trout (*Salvelinus namaycush*), cisco (*Coregonus artedi*), least cisco (*Coregonus sardinella*) and ninespine stickleback (*Pungitius pungitius*). Common resident marine species encountered include saffron cod (*Eleginus gracilis*), Greenland cod (*Gadus ogac*), fourhorn sculpin (*Triglopsis quadricornis*), capelin (*Mallotus villosus*), Arctic flounder (*Liopsetta glacialis*), shorthorn sculpin (*Myoxocephalus scorpius*), starry flounder (*Platichthys stellatus*), Pacific herring (*Clupea harengus pallasi*), rainbow smelt (*Osmerus mordax*), Arctic shanny (*Stichaeus punctatus*), banded gunnel (*Pholis fasciata*) and longhead dab (*Limanda proboscidea*). Other less common species include snailfish (*Liparis sp.*), sandlance (*Ammodytes sp.*) and poachers (family Agonidae).

The shoreline of Roberts Bay in the area of the pipeline route is classified as good quality fish habitat based on mapping of substrate (Rescan 2001; 2011). From the shoreline to a depth of approximately 2 m, the substrate is composed predominately of sand, with some gravel, cobble, boulder, and bedrock. In waters deeper than 2 m, the substrate rapidly transitions to fine clay and mud.

For most fish species, the potential use of Roberts Bay is for rearing and feeding in the nearshore environment. Habitats in Roberts Bay that provide food and good cover were rated as high quality; however these were generally restricted to depths of less than 3 m. Capelin use Roberts Bay during spawning migrations. Large numbers of capelin migrate past the pipeline route in late July (Rescan 2011). Studies indicate that capelin do not spawn in this area but use the nearshore waters of Roberts Bay as a migration corridor to spawning areas located elsewhere. None of the species known to occur in Roberts Bay are currently endangered or threatened (COSEWIC 2010).

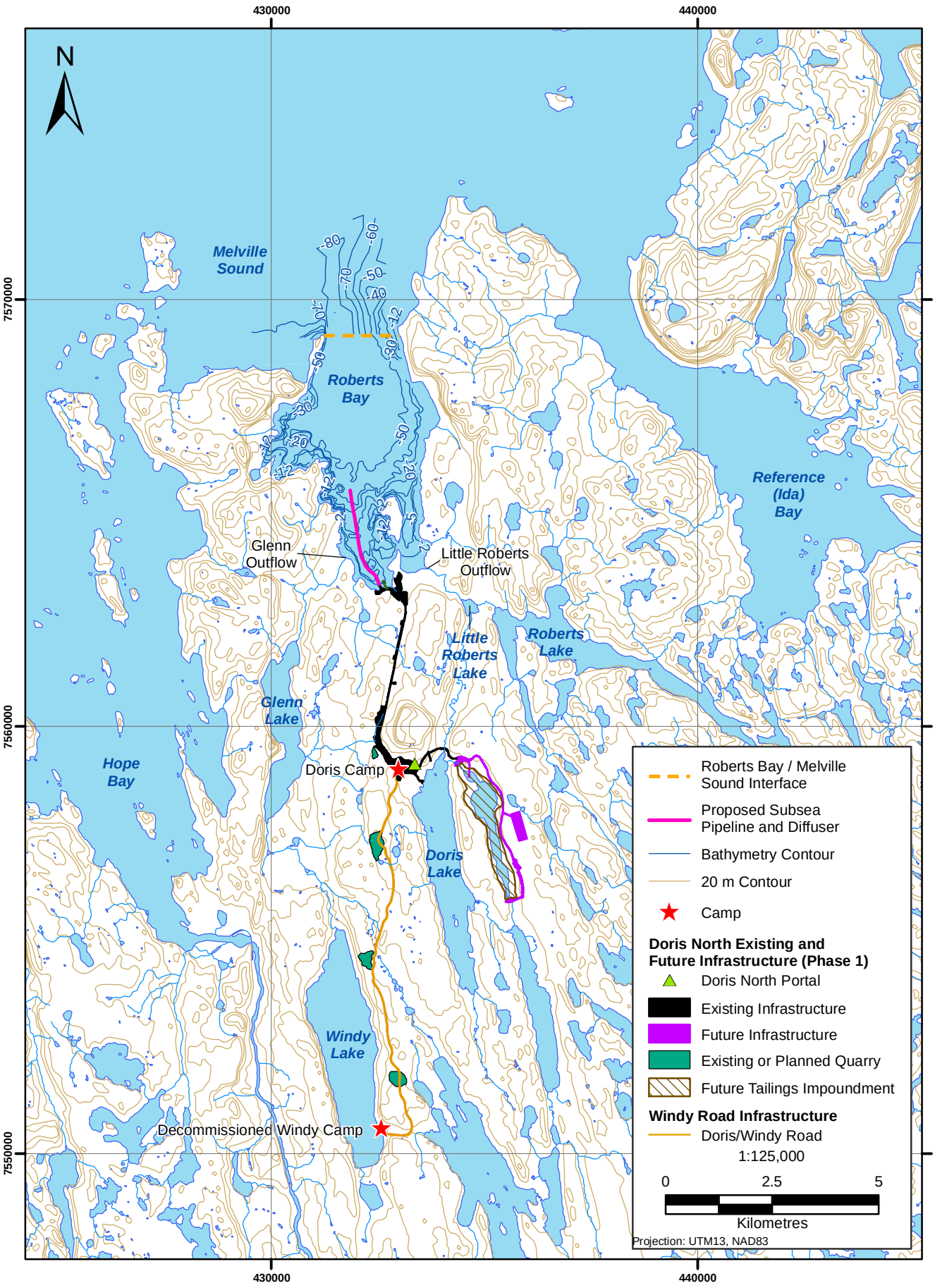

Figure 3-1

Location of Roberts Bay and Adjacent Bays

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The deeper substrates of Roberts Bay, along the subsea pipeline route to the 40 m isobath, are composed entirely of soft fines (clay and mud). These sediments provide habitat for infaunal invertebrates, which in turn provide a food source for fish. These deeper areas would be used by fish primarily for foraging, as there is little suitable shelter for rearing or predator avoidance.

4. Habitat Evaluation and Proposed Mitigative Measures

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4. Habitat Evaluation and Proposed Mitigative Measures

4.1 HABITAT EVALUATION

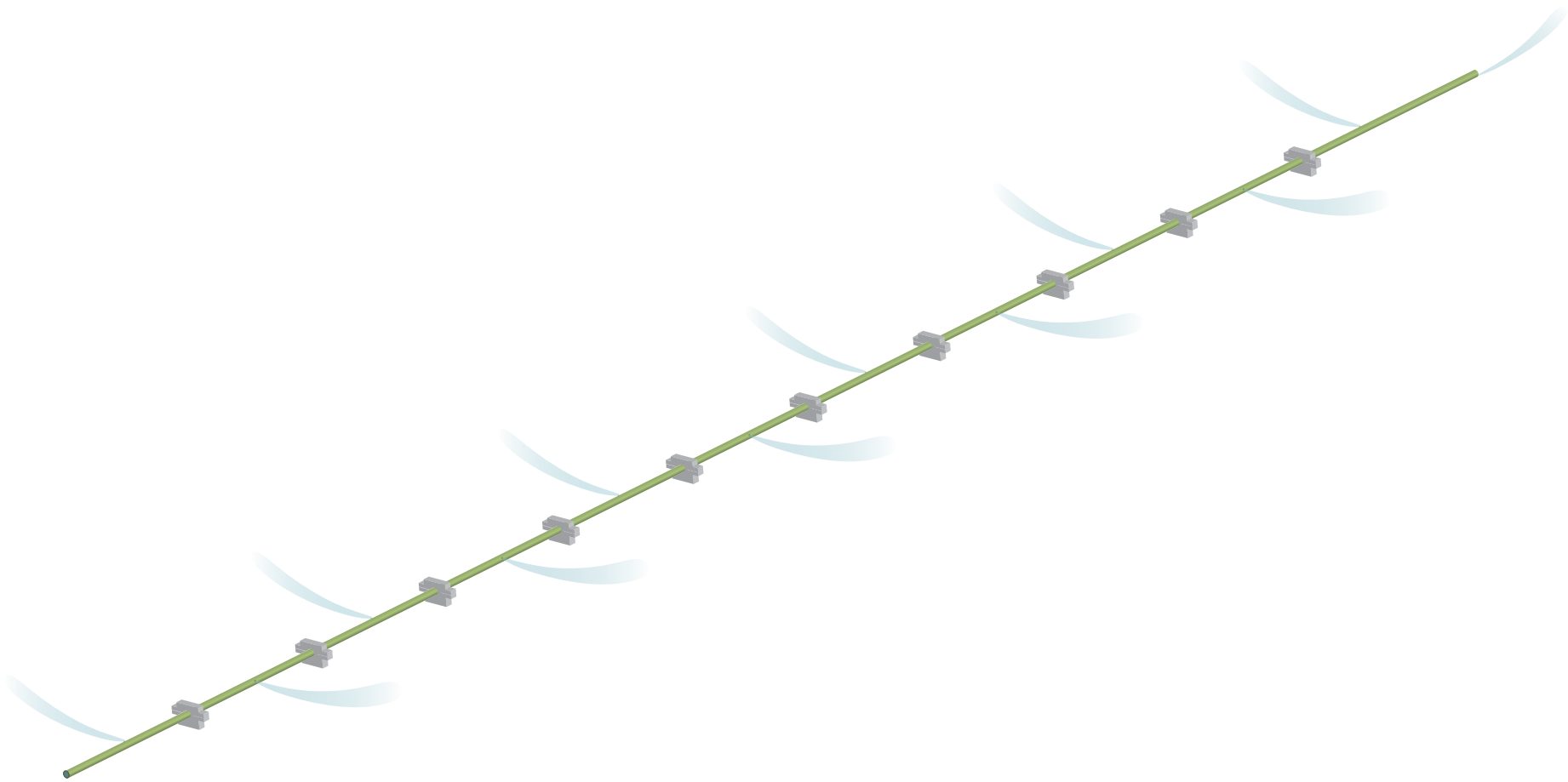
In many No Net Loss Plans, the Habitat Evaluation Procedure (HEP) is used to quantify loss of fish habitat. This procedure involves determining the areas of specific habitat types that are used by key species. These areas are then multiplied by a Habitat Suitability Index (HSI) for each of four life stages – spawning, nursery, rearing and foraging – to obtain a number of Habitat Units (HU, ha^2) for each zone and life stage. The HSI ranges from 0.00 for unsuitable habitat to 1.00 for excellent habitat. HSI are generally obtained from the literature or from specific studies of fish habitat utilization. This procedure was used in the original Doris North No Net Loss Plan to determine the amount of habitat lost by the creation of the Tail Lake TIA. However, for the subsea pipeline, no published HSI models exist for the marine fish species encountered in Roberts Bay and HEP therefore cannot be used. For the purposes of this No Net Loss Plan, any habitat utilized by fish will be considered "suitable fish habitat". This approach was also taken in the Doris North No Net Loss Plan (Golder 2007) to obtain the Fisheries Authorization for the Roberts Bay jetty (DFO File No. NU-02-0117).

The nearshore areas of Roberts Bay provide habitat for at least 18 species of marine fish (Rescan 2011). These fishes utilize a variety of habitat types. Flatfishes inhabit sandy bottoms. Sculpins, gunnels and cods inhabit areas of hard substrate with vertical relief for shelter. Arctic char, lake trout and Pacific herring inhabit the mid-water column.

Many studies of fish recruitment to artificial habitats indicate that concrete block structures are useful in creating fish habitat, particularly in sediment bottom areas where no other hard substrate exists (Sherman et al. 2002). Particularly useful is the creation of ledges, crevices and similar shelter sites within these concrete structures (Ebata et al. 2011). In this case, lateral "ears" will be included on either side of the ballast weights to provide overhanging habitat for a variety of demersal fish. Gadids (cods) and Cottids (sculpins) are particularly attracted to complex hard substrates (Tupper and Boutilier 1995). In Roberts Bay, this would include four of the most common marine fishes: Greenland cod (*Gadus ogac*), saffron cod (*Eleginus gracilis*), fourhorn sculpin (*Triglopsis quadricornis*) and shorthorn sculpin (*Myoxocephalus scorpius*) (Rescan 2011).

After "daylighting" from the toe of the jetty at 4 m depth (well below low water), the subsea pipeline will run approximately 2.4 km NNW to the 40 m isobath where it will end in a 95 m long, 20 port diffuser. Rather than being entrenched in the seafloor, the subsea pipeline will be ballasted with concrete weights that will suspend the pipeline approximately 0.5 m above the seafloor (Figure 4.1-1). This will eliminate the need for digging a trench or otherwise disturbing the seafloor.

Each ballast weight will have a footprint of 80 x 40 cm or 0.32 m^2 (Figure 4.1-2). The ballast weights will be spaced at approximately 8 m intervals for a total of 2.4 km, requiring 300 ballast weight units. Thus the total footprint of the ballast weights will be 96 m^2. The "ears" will be 40 cm long x 20 cm wide. The total surface area (excluding the bottom surface) of each ballast weight will be 2.72 m^2, of which 0.16 m^2 will be high-quality overhanging ledge habitat. Thus the total amount of new fish habitat created by the ballast weights will be 816 m^2. In addition to providing shelter for fish, the rough concrete surface of the ballast weights will form a settlement substrate for algae and sessile invertebrates, which may form a food source for small fishes and macroinvertebrates. This process of colonization has already been documented on the Roberts Bay jetty and compensation shoals (Rescan 2009; 2010b)



Not to scale

Figure 4.1-1

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Concept Sketch of One Half of Diffuser Showing Discharge Plumes

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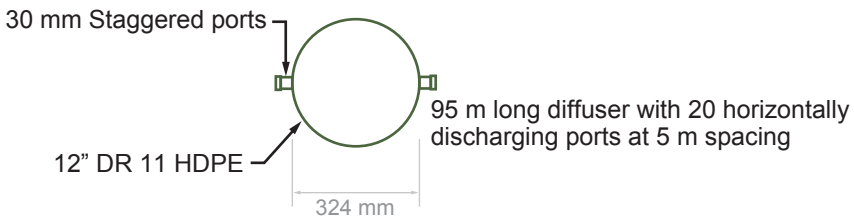
Diffuser



Counter Buoyancy Weight

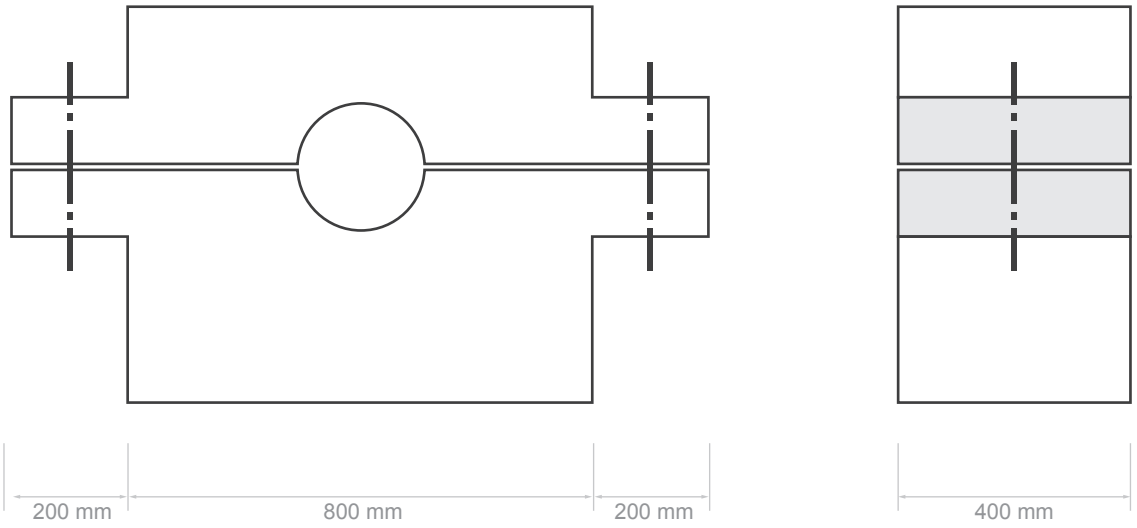


Figure 4.1-2

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Diffuser End View and Counter Buoyancy Weight

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In addition to the ballast weights, the pipeline itself will likely be colonized by algae and sessile invertebrates. Moreover, because the pipeline is suspended approximately 0.5 m above the seafloor, the underside of the pipe will provide cover for fish, including Arctic flounder (*Liopsetta glacialis*), longhead dab (*Limanda proboscidea*) and starry flounder (*Platichthys stellatus*). These flatfishes live on soft bottoms but will seek shelter on the seafloor under the pipe. In creating new habitat, it is important to note that horizontal and vertical habitats may differ in relative quality among different species groups. For example, planktivorous fishes often prefer vertical structures, while piscivorous ambush predators prefer ledges or caves, and flatfish require relatively horizontal bottoms (Wilhelmsson et al. 2006).

Since no fish habitat will be harmfully altered, disturbed or destroyed by this project, there will be no net loss of fish habitat productivity in Roberts Bay, and in fact a net gain of at least 720 m^2 of useable fish habitat should be realized (816 m^2 constructed habitat – 96 m^2 lost seafloor habitat).

4.2 MITIGATION MEASURES

Starting at the landward end of the jetty, the pipeline will be entrenched within the jetty. The pipeline will "daylight" from the toe of the jetty at a depth of 4 m in Roberts Bay. This entrenchment of the pipeline within the jetty is necessary to prevent it from destruction by shoreline ice scour during the winter months and to protect sensitive shoreline habitats from damage caused by pipeline construction.

In addition to the entrenchment of the pipe within the jetty, the use of concrete ballast weights to suspend the subsea pipeline will eliminate the need for digging a trench or otherwise disturbing the seafloor. The design of the concrete ballast weights will increase habitat area and complexity and provide suitable habitat for benthic invertebrates and fishes, as discussed in section 4.1.

The treated TIA water will be de-aerated in a head tank on shore in which bubbles can escape to the atmosphere through the liquid surface. This is necessary to avoid air escaping from the diffuser in the form of bubbles. Many species of marine fish show strong avoidance reactions to bubbles and bubbles from the diffuser could interfere with their migration. De-aeration of the discharge will prevent bubbles from forming in the pipeline.

Pipeline construction will not occur during late July through early August, when capelin spawning migrations are underway in Roberts Bay. By routing the pipe through the central portion of Roberts Bay, disturbance to foraging or migrating fishes will be minimized, as most fish species tend to prefer the more structurally complex nearshore habitats.

It is anticipated that the subsea pipeline and concrete ballast weights will provide fish habitat that increases in quality over time as more food organisms colonize the ballast weights and pipe. Hence, it is proposed to keep the subsea pipeline and concrete ballast weights in place upon closure. The final closure plan will be determined in discussions with DFO and other interested parties.

5. Monitoring

5. Monitoring

In order to confirm the utility of the concrete ballast weights in providing fish habitat, a monitoring program will be established for the subsea pipeline. This program will involve underwater video assessment of the ballast weights at four depth strata: 5 m, 10 m, 15 m, and 20 m. Observers will use a Delta Vision SplashCam or similar underwater video system, lowered from a boat, to record the colonization of the ballast weights and pipeline by sessile marine organisms and to record the presence of fish associated with the ballast weights.

A total of 2 hours of video will be recorded at each depth stratum during August of the year following pipeline construction, and again 3 years following pipeline construction. Colonization of the pipeline and concrete ballasts in Roberts Bay will likely be too slow to warrant yearly monitoring. In each video recording, the percentage cover of encrusting organisms on the pipe and ballast weights will be estimated, and the number and species of macroinvertebrates and fish will be recorded.

Results from the ballast utilization monitoring will be presented in a report that will include the methods, results, and conclusions of the survey. A separate report will be prepared for each monitoring year. These reports will be provided to DFO within 6 months of completion of the surveys.

6. Summary

(English)

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(Inuktitut)

6. Nainaqhimayuq

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6. Summary

The proposed new TIA water management plan involves discharging treated TIA water to Roberts Bay via a pipeline and diffuser. The overland portion of the system will follow existing corridors and pads. The marine portion will originate at the jetty and extend 2.4 km to the 40 m isobath.

This No Net Loss Plan covers the subsea pipeline and diffuser in Roberts Bay.

The objectives of this No Net Loss Plan are to (1) provide DFO with the information it needs to determine if a *Fisheries Authorization* is required for this project under section 35(2) of the *Fisheries Act*, and (2) propose a strategy for mitigation of fish habitat potentially affected by the construction of the subsea pipeline and diffuser in Roberts Bay.

An un-insulated (bare) subsea pipeline will be installed in Roberts Bay to discharge the treated TIA water at 40 m depth through a diffuser. In order to avoid disturbing sensitive shoreline fish habitat, the pipeline will be installed along the existing jetty in Roberts Bay, emerging at the toe of the jetty. "Daylighting" of the pipeline at 4 m depth, well below low water, is required to protect it from ice damage. Pipeline construction will not occur during late July through early August, when capelin spawning migrations are underway.

After daylighting at 4 m, the pipe will be laid along the seafloor and ballasted by concrete weights. The weights will hold the pipeline in place, suspended approximately 0.5 m above the seafloor. The ballast weights are designed with lateral "ears" to provide overhanging shelter sites for demersal fishes. A total of 768 m^2 of new habitat will be created by the concrete ballast weights. It is anticipated that the pipeline itself will also be colonized by algae and sessile invertebrates. The colonization of the ballast weights and pipeline will be monitored by underwater videography.

The treated TIA water will be de-aerated in a head tank on shore in which bubbles can escape to the atmosphere through the liquid surface. This is necessary to avoid air escaping from the diffuser in the form of bubbles. Many species of marine fish show strong avoidance reactions to bubbles and bubbles from the diffuser could interfere with their migration. De-aeration of the discharge will prevent bubbles from forming in the pipeline.

Since no fish habitat will be altered, disturbed or destroyed by this project, there will be no net loss of fish habitat productivity, and in fact a net gain of at least 768 m^2 should be realized.

For closure, it is recommended that the subsea pipeline and concrete ballast weights remain in place, as they will continue to provide fish habitat that increases in quality over time.

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ᐅᑯᐊ ᑐᒃᓯᕌᑦ ᐅᕙᙵᙵᔪᑦ ᓄᑖᑦ ᐱᓐᔪᑎᓖᑦ ᐊᒃᑕᑯᖃᐅᒻᒧᑦ ᐅᔭᕋᒃᓴᓕᕆᔾᔪᑎᒥᓂᖅᑕᓕᖕᒧᑦ ᐃᒪᖓᓅᖓᔪᒥᒃ ᐱᓕᕆᔾᔪᑎᒃᓴᑦ ᒪᑯᓄᖓᖓᔪᓂᒃ ᐃᓚᓖᑦ ᐃᒥᖅ ᑖᒃᑲᖕᒫᖅᑐᖅ ᓴᓗᒻᒪᓭᖅᓯᒪᒐᔭᕐᒪᑦ ᐊᒃᑕᑯᖃᐅᑎᐅᑉ ᐃᒪᖓ ᑲᐱᕼᐃᓕᒃᑑᑉ ᐃᒪᖓᓅᖃᑦᑕᕐᑐᓂ ᓱᓪᓗᓕᒃᑯᑦ ᐊᖁᑎᖃᓪᓗᓂ ᐊᒻᒪᓗ ᐊᑕᔪᒥᒃ ᓴᓗᒻᒪᒃᓴᐃᒍᑎᖃᑦᑎᓪᓗᒍ ᑎᖕᒥᖄᖅᑐᒥᒃ. ᐃᓚᖓ ᓄᓇᒃᑰᖃᑦᑖᖅᑐᖅ ᑖᒃᑲᖕᒫᖅᑐᖅ ᑰᖃᑦᑖᕐᒪᑦ ᐊᖁᑎᒥᒎᑦ ᐊᒻᒪᓗ ᓄᓇᒥ ᐊᓪᓕᕋᖃᓪᓗᓂ ᐃᓂᖓᓂᒃ. ᑕᓇᐅᒻᒦᖅᑐᖅ ᐃᓚᖓ ᓄᕙᓕᐊᖑᓯᒪᔻᑉ ᐊᒻᒪᓗ ᑕᑭᓂᖃᖅᓱᓂ ᓄᕙᓕᐊᒥᓂᖅ ᐃᒫᒃ 2.4 km ᑎᑭᐅᑎᓯᒪᔪᒥᒃ ᐃᒪᐃᓪᓗᐊᖅᑐᒥᒃ 40 m ᑎᑭᐅᑎᓯᒪᓗᓂ ᐃᒪᐅᑉ ᐃᑎᓂᖓᓅᖓᓗᓂ ᒪᓕᒃᑕᐅᓗᓂ ᐃᖅᑲᖓᑕ ᐃᐸᖓ.

ᐅᑯᐊ ᓱᕋᐃᑦᑕᐃᓕᒍᑎᒃᓵᑦ ᐋᕿᒃᓯᒪᔭᑦ ᒪᑯᓄᖓᖓᔪᓂᒃ ᑕᓇᐅᑉ ᐃᒪᖓᓅᖓᔪᒥᒃ ᓱᓕᓗᓕᖕᒥᒃ ᐊᒻᒪᓗ ᓴᓗᒻᒪᖅᓴᐃᒍᒻᒥᒃ ᐱᑕᖃᕋᔭᕐᒪᑦ ᑲᐱᕼᐃᓕᒃᑑᒥ.

ᑖᒃᑯᓄᖓᖓᔪᓂᒃ ᐱᓐᔪᑎᓖᑦ ᐅᑯᐊ ᓱᕋᐃᑦᑕᐃᓕᒍᑎᒃᓵᑦ ᐱᑕᖃᑮᖅᑐᑦ ᒪᑯᓂᖓ (1) ᐱᑎᑕᐅᓗᑎᒃ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑐᓴᒐᒃᓴᓂᒃ ᖃᓄᖅᑑᕈᑎᒋᒋᐊᓕᖕᒋᓐᓂᒃ *ᐃᖅᑲᓗᓕᖕᓅᖓᔪᓂᒃ ᐱᔪᓐᓇᕈᑎᖃᖅᑎᖅᓯᕗᖖᒪᑕ ᑲᔪᓯᑎᕐᔪᑎᓂᒃ* ᑕᒪᒃᑯᓄᖓᖓᔪᑦ ᐊᑑᑕᐅᒋᐊᖃᒪᑕ ᐱᓐᔪᑎᓖᑦ ᐅᑯᓄᖓᖓᔪᓂᒃ ᐱᓕᕆᕝᕕᒃᓵᖓᔪᓂᒃ ᒪᓕᒃᑐᑦ ᐃᓚᖓᓂ sec. 35(2) *ᐃᖅᑲᓗᓕᖕᓅᖓᔪᓂᒃ ᒪᓕᒐᕆ*, ᐊᒻᒪᓗ (2) ᑐᒃᓯᕋᖑᕆᐊᖃᒪᑕ ᐋᕿᓱᖅᓯᒪᓂᕆᐊᕐᓴᖅᑕᖕᒋᓐᓂᒃ ᐱᔪᓐᓇᕈᑎᒃᓵᓂᒃ ᐃᖅᑲᓗᓕᖕᓅᖓᔪᓂᒃ ᓱᕋᐃᑦᑕᐃᓕᒍᑎᓂᒃ ᓴᓇᕙᐅᓂᐅᓴᔫᖓᔪᓂᒃ ᐃᒪᕐᒨᖓᔪᒥᒃ ᓱᓕᓗᓕᖕᒥᒃ ᐊᒻᒪᓗ ᓴᓗᒻᒪᖅᓴᐃᒍᒻᒥᒃ ᐱᑕᖃᓪᓗᓂ ᐊᖁᑎᒃᓴᖓᓂᒃ ᑲᐱᕼᐃᓕᖅᑑᒥ.

ᐱᑕᖃᕋᕐᒪᑦ ᐃᑭᐊᕐᒥᖅᑲᖏᑦᑐᒥᒃ ᑕᓇᐅᒨᖓᔪᒥᕐ ᓱᓕᓗᓕᖕᒥᒃ ᐋᕿᒃᑕᐅᕋᖅᑐᒥᒃ ᑲᐱᕼᐃᓕᒃᑑᒥ ᑕᒡᕗᖓ ᑎᑭᐅᑎᓯᒪᕋᕐᒪᑦ ᓴᓗᒻᒪᖅᓯᒪᔭᖅ ᐊᒃᑕᑯ ᐅᔭᕋᒃᓴᓕᕆᔾᔪᑎᒥᓂᖅᑕᓕᖕᒥᖕᒫᖅᑐᖅ ᐃᒪᖓᓂᒃ ᐃᒫᑎᒋ 40 m ᐃᑎᓂᓕᖕᒥᒃ ᑎᑭᐅᑎᖃᑦᑕᖅᑐᒥᒃ ᐊᖁᑎᖃᓪᓗᓂ ᓴᓗᒻᒪᖅᓴᐃᒍᑎᖃᓪᓗᓂ. ᓱᕋᒃᑕᐅᖁᓇᕆᑦ ᐊᑦᑕᓇᓗᐊᖅᑐᑦ ᓄᓇᐅᑉ ᑭᒡᓕᖓᓅᖓᔪᑦ ᐃᖅᑲᓗᖏᑦ, ᓱᓗᓕᒃ ᐋᕿᒃᑕᐅᕋᖅᑐᖅ ᐅᕙᖓᖓᓗᓂ ᓄᕙᖕᒧᑦ ᒫᓇ ᓴᕿᐅᒪᕗᕐᖅᑐᒧᑦ ᑲᐱᕼᐃᓕᖅᑑᒥ, ᑕᑯᒃᓴᒥ ᓄᕙᖕᒥ. "ᐅᐸᓗᒃᑯᑦ ᖃᐅᒪᑎᓪᓗᒍ" ᓱᓗᓕᒃ ᐃᒪᐃᓪᓗᐊᖅᑐᖅ 4 m ᐃᑎᓂᖓ, ᐃᑲᑦᑐᖅ ᐃᒪᖓ, ᓯᕐᑯᑦᑎᕋᔭᕐᑯᓇᒍ ᓯᑯᒧᑦ ᐅᑭᐅᖑᓕᖅᐸᑦ. ᓱᓗᓕᖕᒥᒃ ᐊᕿᑖᖅᑐᑦ ᑭᓯᐊᓂ ᓄᙳᐊᓂ July ᑎᑭᐅᑎᓗᓂ ᓄᑖᖑᑎᓪᓗᒍ August, ᐃᖅᑲᓗᒐᐃᑦ ᓱᕌᐃᔭᕐᓇᖕᒋᑦ ᐃᓪᓕᕐᒥᓐᓄᑦ ᐅᑎᓕᖅᐸᑕ.

ᑖᖅᓯᒐᐃᐸᑉ ᐃᒪᐃᓪᓗᐊᖅᑐᒥᒃ 4 m, ᓱᓗᓕᒃ ᐃᓕᔭᐅᕋᖅᑐᖅ ᐃᒪᖓᑕ ᐃᖄᓄᑦ ᐊᒻᒪᓗ ᑭᓴᐅᑎᖃᕋᕐᒪᑦ ᐳᕐᓇᓪᓚᕓᒃᑯᑎᓕᖕᒥᒃ ᖁᐊᖅᑎᑕᒐᕐᓂᒃ ᐃᒃᑕᓇᑦᑐᓂᒃ. ᐃᒃᑕᓇᑦᑐᓂᒃ ᑭᓴᐅᑎᖃᕋᕐᒪᑕ ᓱᓗᓖᑦ ᐊᐅᓚᖁᓇᕆᑦ ᐃᓂᒥᓃᖃᑦᑕᕋᕐᒪᑦ, ᐃᒫᓂ ᐳᒃᑕᓗᓂ ᒥᒃᓴᐅᓴᒃᑐᒥᒃ ᐃᒫᒃ 0.5 m ᐃᖄᓄᑦ ᐊᒃᑐᐊᕆᓪᓗᓂ. ᐳᕐᓇᓪᓚᕓᒃᑯᑎᑦ ᐃᒃᑕᓇᒃᑐᑦ ᐋᕿᒃᓯᒪᔭᐅᕋᖅᑐᑦ "ᓯᐅᑎᐅᔭᓕᒃ" ᑕᐃᒪᐃᑦᑐᖅ ᐊᑑᑎᓂᖃᕋᕐᒪᑦ ᓂᕕᖓᔪᖅ ᖁᑭᓂ ᐅᐸᒃᑕᐅᖃᑦᑕᕋᕐᒪᑦ ᐳᓚᕖᐅᖃᑦᑕᖅᓱᑎᒃ ᐃᖅᑲᓘᓄᑦ ᐃᖃᒻᒥᐅᑕᓄᑦ. ᐃᓗᓐᓇᑎᒃ ᑲᑎᖅᑐᖅᓯᒪᔪᑦ ᐃᒫᒃ 768 m^2 ᓄᑕᖅᑕᓕᒃ ᓴᓇᔭᐅᓯᒪᔪᒥᒃ ᐃᓂᖓᓃᑦᑐᖅ ᖁᐊᖅᑎᑕᒐᖅᑕᓕᐅᑉ ᐳᕐᓇᓪᓚᕓᒃᑯᑎᑕᓕᖕᒦᑦᑐᑦ. ᓯᕗᕙᒐᒍᓪᓗ ᖃᐅᔨᒪᔭᐅᓯᓇᕐᒪᑕ ᓱᓗᓕᒃᑕᑖᑦ ᐊᖃᔭᐃᓐᓇᕈᑖᕐᒪᑦ ᐊᒻᒪᓗ ᐆᒪᔪᕈᓐᓂᒃ ᐱᑕᕚᕐᓗᓂ ᐃᒪᖓ. ᐱᕈᖅᕕᐅᓗᓂ ᐊᒥᓱᓂᒃ ᐃᒪᓃᑦᑐᑦ ᐳᕐᓇᓪᓚᕓᒃᑯᑎᓖᑦ ᐊᒻᒪᓗ ᓱᓗᓖᑦ ᑕᒪᒃᑯᐊ ᖃᐅᔾᔭᖅᑕᐅᖃᑦᑕᕋᕐᒪᑦ ᐃᒪᐅᑉ ᐃᖃᓃᑦᑐᒥᒃ ᐊᔾᔨᓕᐅᕈᑎᑕᖅᓱᓂ ᐊᐅᓚᔩᓕᐅᕈᒻᒥᒃ.

ᓴᓗᒻᒪᓴᐃᒍᒻᒥᒃ ᐱᑕᓕᒃ ᐊᒃᑕᑯᖃᐅᑦ ᐅᔭᕋᒃᓴᓕᕆᔾᔪᑎᒥᓂᖅᑕᓕᐅᑉ ᐃᒪᖓ ᐃᒪᐃᔭᖅᑕᐅᖃᑦᑕᕋᕐᒪᑦ ᓄᓇᒦᑦᑐᒥᒃ ᐱᑕᖃᓪᓗᓂ ᑎᖕᒥᖄᖅᕕᓕᒃ ᐃᒪᖃᐅᑦ ᖄᖓᒍᑦ ᓄᓇᒥ ᐳᓪᓚᕆᓂᑯᐃᑦ ᑐᑦᑕᖃᑦᑕᕋᕐᒪᑕ ᖄᖃᑦᑕᖃᓗᑎᒃ ᓯᓚᒻᒧᐊᖓᔪᒦᑦᑐᒧᑦ ᖄᖓᓄᑦ ᐃᒥᖅᑕᓕᐅᑉ ᐃᒪᖃᐅᒻᒦᑦᑐᖅ. ᒪᐅᖓᑐᐃᓐᓇᖅ ᓯᓚᒧᑦ ᑎᒃᑕᐅᕋᖃᑦᑕᕋᕐᖏᓪᓗᑕ ᐳᓪᓚᕈᓗᐃᑦ ᐱᔪᑦ ᑎᖕᒥᖄᖅᑐᒥᒃ ᓴᓗᒻᒪᖅᓴᐃᒍᒻᒥᖕᒫᖅᑐᑦ ᐳᓪᓚᓕᒥᓃᑦ. ᐊᒥᓱᑦ ᑕᓇᐅᒻᒥᐅᑕᑦ ᐃᖅᑲᓗᐃᑦ ᖃᐅᔨᓯᐅᖃᑦᑕᖅᓯᒪᖕᒪᑕ ᕿᒪᑑᖑᕆᐊᖕᒋᓐᓂᒃ ᖃᓂᒃᓴᕈᒪᑑᖑᕆᕆᐊᖕᒋᓐᓂᒃ ᐳᓪᓚᕐᓂᒃ ᑎᖕᒥᖄᖅᑐᒥᒃ ᓯᓚᒻᒧᑦ ᑕᐃᒪᐃᓪᒪᑕ

ᐊᓯᐃᓪᓛᒃ ᐸᓚᕈᓐᓇᖅᑐᑦ ᑕᒪᒃᑯᓄᖕᒐ ᓱᕐᕌᐃᒍᑕᐅᔪᓐᓇᖅᑐᑦ. ᓴᓗᒻᒪᖅᓴᐃᒍᒥᒃ ᐱᔪᑦ ᑎᖕᒥᒐᓲᒥᒃ ᐳᓪᓚᕐᓂᒃ ᒪᐅᖕᒐᑐᐃᓐᓇᕇᒃᑯᑎᓕᒃ ᓱᓪᓗᓕᖕᓂᒃ ᐱᔪᑦ ᐋᕿᒃᓯᒪᔭᐅᓛᕐᒪᑦ.

ᐃᖃᓗᓖᑦ ᓱᕋᒃᑕᐅᓚᖕᒐᖏᒻᒪᑕ, ᐸᒡᕖᓴᒃᑕᐅᓚᖕᒐᒐᑎᒃᓗ, ᓯᕐᑯᑎᑕᐅᓚᖕᒐᒐᑎᒃᓗ ᐱᔪᓂᒃ ᐅᕙᖕᒐᑦ ᐱᓚᕆᕖᖕᒥᒃ, ᐱᑕᖃᓚᖕᒐᖕᒋᑦᑐᖅ ᐃᖃᓗᓖᑦ ᓱᕋᒃᑕᐅᓂᐅᓴᒍᑎᖕᒋᓐᓂᒃ, ᐊᒻᒪᓗ ᐃᖃᓗᓕᒃ ᐃᖃᓪᓕᖃᓐᓂᖅᓴᐅᓛᕐᒪᑦ ᓄᑖᒥᒃ ᐃᒪᐃᓪᓗᐊᖅᑐᒥᒃ 768 m^2 ᑕᒪᓐᓇ ᑐᑭᓯᔭᐅᑎᐊᓕᒃ.

ᒪᑐᓯᒍᑎᒃᓴᓅᖕᒐᔪᑦ ᐅᔾᔨᖅᑑᑕᐅᑎᓪᓗᒋᑦ, ᐊᑑᑕᐅᕐᑯᔭᑦ ᐃᒪᓅᖕᒐᔪᖅ ᐋᕿᒃᑕᐅᓛᖅᑐᖅ ᓱᓪᓗᓕᒃ ᐊᒻᒪᓗ ᕐᑯᐊᖅᑎᑕᒐᖅᑕᓕᒃ ᐳᕐᓇᓪᓚᒌᒃᑯᑎᓕᖕᓂᒃ ᑖᒃᑯᐊ ᑕᐃᒪᐃᓕᖕᒐᐃᓐᓇᕐᑯᔭᐅᒐᔭᖅᑐᑦ ᐃᓂᒥᓐᓃᑦᑐᑦ ᓱᕐᕋᒃᑕᐅᖕᒋᓪᓗᑎᒃ ᑭᖑᕐᖕᒐᒍᑦ, ᐃᖃᓗᓕᒃ ᐃᖃᓗᕐᑲᓐᓂᖅᓴᕈᓛᕐᒪᑦ ᐊᒥᓲᓂᖅᓴᓂᒃ ᑭᖑᕐᖕᒐᒍᑦ ᐃᖃᓗᕐᑲᓐᓂᖅᓴᐅᓛᕐᒪᑦ.

6. Nainaqhimayuq

Tamna uuktugut nutamut TIA-nga imaq aulataunia upalungaiyaut ilalik kuvipkaqnianik halumaqhaqhimayuq TIA-nga imaq talvunga Roberts Bay-mun atuqhugu huplu akutyutalu. Tahamna nunap qangaguqnia ilagiya havagut malikniaqta tatya apqutauyut tungavitlu. Tamna tagiumitnia pigiaqniaq talvanga tikkiqqiuqhimayumit uigulugulu 2.4 kilaamitat talvunga 40 miitat immapiluanut.

Una Tamailaitniq Upalungaiyaut pityutilik tagiup iluanut huplu akutyutlu talvani Roberts Bay-mi.

Tapkuat ihumagiya ukuat Tammainaigitni Upalungaiyautit tapkuat (1) piqaqtitni DFO-kut tuhagakhanik piyaqaqninut naunaiqnit piniagiakhai Imaqmiutaligiyit Piyungnautai piyaqagiakha uumunga havanguyumut atuqhugu nakataani 35(2) tapkunani Imaqmiutaligiyit Piquyat, tamnalu (2) uuktugutauyuq atugakhaliat ihuaqhigiagutinut Iqaluit nayuqpagai aktualagiakhait tapkuat hanayaunianit tahamna tagiup iluagut huplu aktyutauyuqlu talvani Roberts Bay-mi.

Tamna uquguhiqhimaittuq (hunaittuq) tagiup iluani huplu iliyaunniaq talvani Roberts Bay-mi kuvigaqviuvikha halumaqtiqhimayuq TIA-nga imaqta talvani 40 miitat itiniani atuqlugu akutyutauyukhaq. Pittailinaghuaqnianut ulapihaqni qanugililat tagiup hinaani iqaluqaqniuyut, tamna huplu iliyauniaq tahamuna tatya atuqtukkut tikiqqiuqhimayumi talvani Roberts Bay-mi, nuigiaqluni ihuani tikiqqiuqhimayup. “Hatqiqtitnia” tahamna huplu talvani 4 miitat itiniani, atiqpiangani imaiqtitaqniup, piyalik hapuhimanahuaqhugit hikumit ahiguqtaunia. Huplu hanayaunia atuqtaunia atuqtitlugu atpaqnia Julai havaklugulu atulihaqhiqnia Aagasi, tahapkuat iqalunuit aulagiaqpakni atuliqat.

Nuigiaqvianit 4 miitat, tamna huplu iluqagauniaq tahamunga natqanut tagiup qangulaiyaqlugulu uyaqiuqhimayunut uqumailuttanut. Tapkuat uqumailuttat pihimaniaqta huplu huniqtaililugu, qangattaqhimalugu mikhaani 0.5 miitat tagiup natqanit. Tahamna uqumailutaq hanayakhaliuqhimayuq napayunik “hiutiqpaluktut” hapuhimatyutikihai apqutaulutiklu iqaluknit. Katitlugu 768 m^2 tahamna nutaq nayuqtauvaktuq pinguqtauniaq tapkunanga uyaqiuqhimayunit uqumailutaqnit. Nigiugiyauyuq tamna huplu inminik aqayaniktaqtukhautitlugu uumayuvalunuaqnitlu. Tapkuat katittaqviuni uqumailuttat huplulu munagiyauniat immap iluagut qungialiugutinut.

Tahamna halumaqtiqhimayuq TIA-nga imaq puplaiyaqtauvakniaq ihuani qattauyaqmi hinaani talvani puplaknit aniaqviginiaqta imaqmit. Una atugialik pittailininut puplakhimania akutyutaunia piviqtaqtailitauluni. Amihut allatqit tagiuqmiuttat Iqaluit hanivagiaqattaqmata puplaktaqniqnit akutyutauyunit ulapihagutaulaqmata aulaqtaqninut. Puplaiyaqnit kuvipkagauyuq pittailini puviqtaqni hupluni.

Pilaitninut iqaluqaqniuyunik ahianguqtiqni, ulapihaqni huguqtitnilu uumanga havanguyumit, piqaqniaq tammailaitninik iqaluqaqniuyut qanugiliuqpaknit, kihimikli uigutyutauniaq 768 m^2 piyauniaqtuq.

Umiktiqnianut, atugahuaquyauyuq tamna tagiup iluani huplu uyaqiuqhimayutlu uqumailuttat huniumangitlugit, piqagutauniaqmata iqaluknit nayugauttaqnit ilavaligutauniaqmat atukhaliqniani.

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