



Clyde River Small Craft Harbour Development
Community Consultation #2 –Summary Report

R111193.001

200235.00 • March 2021



	Final	N. Corrin	03/12/2021	D. Koliijn
	Draft	N. Corrin	03/01/2021	D. Koliijn
Issue or Revision		Reviewed By:	Date	Issued By:
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March 11, 2021

Mr. Kenton Thiessen, P.Eng., PMP
Project Manager, Professional and Technical Services
Public Services and Procurement Canada

Dear Mr. Thiessen:

RE: Community Consultation Summary Report #2

The Canadrill-CBCL Team completed its second community consultation trip to Clyde River, Nunavut February 19 – 23, 2021. Please find enclosed a summary of activities conducted.

Yours very truly,

CBCL Limited



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Chapter 1 Introduction

The Canadrill-CBCL Joint Venture was retained by Public Services and Procurement Canada (PSPC) on behalf of Fisheries and Oceans Canada (DFO) for the small craft harbour development in Clyde River, Nunavut.

Members of the Canadrill-CBCL Team travelled to Clyde River, Nunavut, from February 19-23, 2021, to participate in meetings and engagement activities. Team members included Danker Kolijn, Group Lead Coastal Engineering and Okalik Egeesiak, Engagement Specialist. The Team was supported locally by Mary Tatatoapik who provided translation services. This was the second of four planned trips to Clyde River to conduct community consultation activities.

The objectives of this second engagement trip to Clyde River were as follows:

1. Provide an update on the status of the design
2. Provide an update on the results of the field studies and investigations
3. Discuss the plans for the upcoming geotechnical investigation
4. Discuss plans for Phase III Environmental Site Assessment (ESA)
5. Introduce the options being considered for the River Crossing Options Analysis
6. Present the schedule for upcoming activities and future community consultations
7. Review responses to previous community questions and concerns
8. Record all questions and concerns
9. Continue to build relationship between the Canadrill-CBCL Team and stakeholders in the community
10. Present the proposed harbour layout and field programs to the community stakeholders and provide answers to questions
11. Better understand the context of the small craft harbour in the community of Clyde River
12. Continue the collection of field data and Inuit Qaujimajatuqangit (IQ)

The engagement tools and approaches used during the initial engagement trip to Clyde River included:

- A structured presentation and discussion with the Hamlet, HTO, Qikiqtani Inuit Association (QIA) members
- A meeting with knowledge holders to gather information on IQ
- Discussions with the Mayor of Clyde River
- Drop in visits with the RCMP and Conservation Officer
- Ad hoc conversations with people from Clyde River

A summary of each of these is provided in the following sections.

Chapter 2 Summary of Stakeholder Update Meeting

A formal meeting was held with the Hamlet, HTO, QIA and Guardians, to continue to build relationships with these stakeholders, present the harbour design, upcoming field activities and project progress. The meeting was held on February 22, 2021 at the Hamlet Office between 7 pm and 9 pm (EST).

Introductions were made for those present in person and for those participating on the phone. Opening remarks were provided by Adele Butcher, Regional Engineer, Small Craft Harbours Branch, Arctic Region and Ontario & Prairie Region, DFO. Subsequently, the Canadrill-CBCL Team presented on the design, results of September 2020 field programs and investigations, upcoming geotechnical and Phase III ESA field programs and the next steps in the design process for the small craft harbour facility. A schedule of activities including future community consultations was also presented. The majority of questions and discussion were held at the end of the presentation, although some questions were interspersed during the presentation. The presentation is included as Appendix A. Photographs of the meeting are in Appendix B.

Meeting participants who attended in-person are listed in Table 2.1 below while those who attended via conference call are listed in Table 2.2.

Table 2.1: In-Person Meeting Participants

Name	Organization	Role
Attendees		
Gary Aipeelee	HTO	Manager
Apiusie Apak	Hamlet of Clyde River / HTO	Councillor / HTO Chair
James Arreak	Hamlet of Clyde River	Senior Administrative Officer
Josie Enuaraq	Hamlet of Clyde River	Councillor
Roger Ettuangat	HTO	Director
Mike Jaypoody	QIA / HTO	Director / Director
Tommy Kakka	Hamlet of Clyde River	Councillor
Sandy Kautuq	HTO	Vice Chair
Regilee Paituq	Hamlet of Clyde River	Councillor
Isa Puingituq	Hamlet of Clyde River	Councillor
Regilee Piungituq	Hamlet of Clyde River	Councillor
Isa Qillaq	Guardians	Community Supervisor
Phillip Sangoya	HTO	Director

Name	Organization	Role
Presenters		
Danker Kolijn	Canadrill-CBCL Team	Senior Coastal Engineer
Okalik Egeesiak	Canadrill-CBCL Team	Engagement Specialist
Mary Tatatoapik	Canadrill-CBCL Team	Translator

Table 2.2: Call-in Meeting Participants

Name	Organization	Role
Adele Butcher	DFO	Regional Engineer
Joanne DeLaronde	DFO	Community Lead
Steven Kolt	DFO	Engineer
Eleanor McEwan	DFO	Senior Project Engineer
Jane Tymoshuk	DFO	Fisheries Protection Biologist
Kenton Thiessen	PSPC	Project Manager
Kevin Bezanson	Canadrill-CBCL Team	Project Manager
Sue Blois	Canadrill-CBCL Team	Project Controller
George Comfort	Canadrill-CBCL Team	Ice Engineer
Natasha Corrin	Canadrill-CBCL Team	Assistant Project Manager
Loretta Hardwick	Canadrill-CBCL Team	Senior Regulatory Specialist
David Parsons	Canadrill-CBCL Team	Assistant Project Manager

2.1 Summary of Feedback

Specific questions were presented on slides and asked by the presenter during the meeting related to the DFO Fish and Fish Habitat Protection Program (FFHPP) and the Transport Canada Navigation Protection Program (NPP).

FFHPP Community Questions

- Are there any concerns regarding fish and fish habitat where the harbour will be constructed?
- Are there any concerns regarding fish and fish habitat that will be altered by the harbour construction?
- What fish / marine life is harvested at the harbour site?

TC NPP Community Questions

- Are there any navigation concerns with the new harbour?
- Are there any concerns with the navigation lights?
- Are there any concerns with the location of the navigation lights?

No specific feedback was received on these questions.

Questions, comments and discussion from the presentation are summarized below. Responses to the questions were provided by Adele Butcher, DFO and Danker Kolijn, CBCL.

A. After Adele Butcher's Introduction

1. Have you had trouble getting environmental permits in other communities?

Response: No, the geotechnical project was referred to the Nunavut Impact Review Board (NIRB) by the Nunavut Planning Commission (NPC), which was a bit of a surprise, but we are going through this process. It is possible that the requirements have been a little more stringent on this project.

2. Do we know who will be constructing the small craft harbour?

Response: We don't know at this time. We will be going to public tender in about a year from now and it will be open to any firm to bid on it.

3. When is the next community meeting?

Response: The next meeting is planned for May or June. We may delay by a month if it looks like COVID restrictions change and would allow for easier travel with less restrictions.

B. After the Slide Regarding the SCH Design (Slide 5)

4. Will there be some dredging to make it easier to get around the sealift breakwater?

Response: Dredging is not planned around the sealift breakwater, although some of the boulders could be moved if the breakwater footprint impinges on the southern exit of the community harbour.

5. When do you anticipate the floating docks to be a total of four?

Response: Provided the first 2 strings go well and there are no problems, the next 2 strings will be added. In Pangnirtung, for example, they added strings twice over the years. The two extra strings in Clyde River could follow two years later.

C. At the End of the Presentation

6. For the transport of armour stone from the quarry to the site; how many monitors will there be? There will be lots of children interested, there is a school in the area and safety is a concern.

Response: CBCL agreed that this is a significant and important concern. Several ideas to mitigate these concerns were discussed, including use of escort vehicles, safety monitors positioned along the route at key locations such as the school, and general education sessions and open houses to increase familiarity of the community with the equipment. This is especially important for children who may be especially curious and at risk. It was discussed that the contractor would be responsible for developing a safety plan that would have to be reviewed by the community and the client. DFO indicated the construction

contractor will have to develop a safety plan to address these items specifically. The plan is always open to adjustments. If, when the work starts the community finds that the measures are not sufficient, DFO will be around to ensure the contractor responds to concerns accordingly.

- 7. One alternative to avoid traffic in town is to use a barge, this way the traffic could avoid the town and it would be safer because the trucks and equipment would avoid the town altogether. However, it could be too shallow, so this could be an issue; look at the options and ensure the options are as safe as possible. There are more challenges using large machinery in the north, unique to Clyde River, this should be considered in picking an option.**

Response: CBCL indicated that we are still reviewing the options and a report will be submitted outlining the pros and cons of each option. This will be shared with the community for feedback. DFO indicated that these are good points and safety is top of mind. There were similar concerns at Pangnirtung and Iqaluit and they were able to find ways to mitigate some risks such as using truck convoys and having marshalling trucks. The point is well received and DFO recognizes the challenges. We will look at all options. The barge option would likely be quite costly given the requirement to handle materials multiple times so we have to determine this options with the budget that we have.

- 8. There is currently a lot of boulders along the shoreline that are dangerous and night and are hazards. There is a hope that the project will remove the boulders to improve navigation and safety.**

Response: CBCL explained that the design is not yet finalized, and that moving the boulders depends on whether the sealift breakwater is adjusted in the detailed design stage. In the event that the breakwater interferes with safe access to the community harbour, some boulders may have to be moved during construction in consultation with the community, client and contractor. DFO indicated that hopefully the navigation lights installed on the breakwater will help with navigation as well. In the event there are boulders that are hazardous to navigation these will be moved, as needed. Prefer not to move too many boulders.

- 9. What kind of maintenance will there be on the harbour? What kind of maintenance is required at Pangnirtung? What is the life of the harbour?**

Response: Once the harbour is built, because it is part of DFO's small craft harbour program, DFO provides funding for maintenance. At Pangnirtung, DFO has installed new floating docks, improved drainage, repaired timber wharf on breakwater, put down new gravel on road and slopes of shoreline and added arbour stone on breakwater. Maintenance dredging work is planned in the next few years. Minor repairs are required on floating docks because vessels that are used tend to dig into wood. For this reason, rubber rails were installed to protect boats and dock. There has also been some ice damage to the floating dock anchorage system.

DFO sends spare parts like hinges, corner brackets, deck boards in case something breaks, there are replacement parts to repair on site.

The design life varies:

Breakwater – 75 years

Wharf – 40 years

Floating docks – 15 years

Dredging – 15 years

If floating docks get damaged before 15 years, DFO will replace them earlier than that.

10. Are the maintenance cost passed on to the community or will DFO cover the cost?

Response: DFO indicated that so far in Pangnirtung they have paid for all costs; but they would want help from the community such as sending photos and help with coordination. DFO does require community participation to achieve the maintenance.

11. Has crossing the river in the winter been considered in the river crossing options?

Response: Yes, this is one of the options being looked at. It involves stockpiling rock on the other side of the river to pull material from the stockpile during summer months, so that the river does not have to be crossed.

12. Has there been any study on the north wind?

Response: All wind directions were studied. The northern breakwater is there to protect the boats from the north wind. Southern waves are the worst and govern the design.

13. With the position of the floating docks, boats could potentially be exposed to winds and waves; how strong are the floating docks?

Response: The mooring design for the floating docks considers winds from any directions; and that the floating docks are full. This is a valid concern and will be taken into consideration in the design. Typically, the breakwaters will shelter the floating docks from the wind. In Pangnirtung, with wind at 100 km/hr. the docks survived, so we will be taking a similar approach here.

14. With all the floating docks in the basin there is not a lot of room to put all the boats on the shore

Response: The slope in front of the floating docks is gentle and can be used to pull the boats up. The idea is to use the boat launch.

Additional Comments:

- The winds have caused a lot of issues for boats and hunters. This project is positive because it protects boats.
- Replacing boats when damaged is costly.
- During construction it will be important to let children know to be careful and watch out.

- The community will have to come together to let kids know to not go near the equipment, but it's interesting to watch.
- It's going to be important to have lots of discussions about the project and construction.
- This is a community dream, everybody is very excited about this project.

Chapter 3 Summary of IQ Session

Inuit Qaujimajatuqangit (IQ) is the unified and holistic system of beliefs, knowledge, principles, and values that encompass Inuit cultural identity. This knowledge system is historically rooted in an in-depth understanding that Inuit have of the natural environment that places emphasis on the interconnectedness of people and place. Increasing recognition is being placed on this comprehensive understanding of local environments as a means of gaining a more complete understanding of the use and value of an area. The incorporation of IQ into western science knowledge systems can contribute to local biodiversity and ecological processes which can in turn advance sustainable resource management and development.

The following list of principles (Table 3.1) compiled by Wenzel (2004) provides a useful summary.

Table 3.1: IQ Principles and Precepts (Wenzel, 2004)¹

Principle	Meaning
Pijitsirniq	Serving and providing to serve others
Aajiiqatigiingniq	Consensus seeking; respect differences
Pilimmaksarniq	Skills & knowledge acquisition; improve skills through practice and effort
Piliriqatigiingniq	Cooperation; work together for common purpose
Avatimik Kamattiarniq	Stewardship; treat nature holistically for actions and intentions have consequences
Qanuqtuurunnarniq	Problem solving; creative improvisation
Akiraqtuutijariaqanginniq Nirjutiit Pijjutigillugit	No one owns animals or land so avoid disputes
Ikpigusuttiarniq Nirjutilimaanik	Treat all wildlife respectfully
Sirliqsaagtittittailiniq	Avoid causing animals unnecessary harm
Ilijaaqaqtailiniq	Harvesting without malice
Surattittailimaniq	Hunt only what is necessary and do not waste
Qaujimanilik	Respect knowledge or experience
Papattiniq	Guardianship of what one does not own

¹ Wenzel's understanding of IQ was acquired through three sources: The Nunavut Social Development Council, J. Arnakak, and Nunavut Wildlife Act.

It is important when incorporating IQ into baseline collection and design to consider that IQ encompasses all local and community-based knowledge that is grounded in the historic and current daily lives of Inuit. As such, the value of IQ is in more than distilling knowledge into a data point, but rather documenting the local ecological knowledge system that can contribute to project designs and practices.

There are practical reasons to include IQ through the participation of knowledge holders in the design of the small craft harbour. These include:

- Incorporating community values
- Incorporating connections and understanding of place
- Accessing baseline data on the local environment that may not be otherwise accessible

In addition, incorporating IQ into project design processes provides the community an opportunity to be involved in decision-making processes and empowerment to take part in community-based monitoring activities that identify any concerns that may arise from the project.

3.1 IQ Workshop Objectives

The intent of the IQ workshops for the small craft harbour project is to work with identified knowledge holders within the community to:

- Gain insight into the historical and current use of the coastal area surrounding the small craft harbour.
- Gather information about local habitats and wildlife resources.
- Have a greater understanding of the relationship between people and place.
- Gather information regarding weather, ocean currents and wave patterns.
- Gain insight as to why certain activities, places or resources are important to Inuit culture and identity.
- Ensure this information is taken into consideration during the design phase of the small craft harbour.

3.2 Intellectual Property Disclaimer

Canadrill-CBCL considers all IQ to be the intellectual property of the Inuit knowledge holders. All maps produced during this study were created jointly by Canadrill-CBCL and local knowledge holders to inform the design of Clyde River's small craft harbour. Any use of the figures or information throughout this document, other than for the purpose stated, must be done only with the expressed written consent of DFO-SCH and the individual knowledge holders.

3.3 Workshop Methodology

3.3.1 Identifying Knowledge Holders

The Canadrill-CBCL Team worked with the HTO to identify and invite knowledge holders to participate in the initial face-to-face IQ workshop held during the week of September 28th, 2020. The knowledge holders that were invited to participate in the workshop were selected based on their knowledge and harvesting experiencing surrounding the area of the small craft harbour and included Isa Piungituq and Inookie Noah. These same knowledge holders were invited to an IQ workshop for the second session, which was held February 22, 2021. Daniel Jaypoody acted as the simultaneous translator and reviewed the consent form with the knowledge holders, which explained the project and the purpose of the workshop. The knowledge holders completed and signed the consent forms, including allowing the Canadrill-CBCL Team to use photographs in reports and on social media.

3.3.2 Workshop Structure & Mapping

Workshops were structured as roundtable discussions whereby the Canadrill-CBCL Team and participants were situated around a table with a map of the proposed small craft harbour design in the centre of the table. The map was used only to guide the discussions. This arrangement encouraged a relaxed atmosphere to promote open dialogue and sharing of knowledge amongst the workshop participants.

The participatory map (included in Appendix C) was used to record information on the local environment. Participants were encouraged to indicate locations on the map as they were sharing their knowledge.

3.4 Workshop 2 Findings

A summary of the IQ Session held at the HTO office is described below. Photographs are in Appendix B.

CBCL described the revised concept

- CBCL comment - Explained the benefits of moving the sealift to the outside of the harbour. Agreed that it is was in a good location.
- CBCL comment - Explained that the revetment will have a 6:1 slope and that people can walk on it. This was supported. The facility will start with 2 floats and can be expanded to 4 floats.
- HTO comment - It is generally believed and supported that the existing community harbour will continue to be used even after the new harbour is built. The existing harbour has two entrances, one to the north and one to the south near the sealift. Don't think the curved sealift breakwater will be a big problem, however the rocks have to removed to make it easy to enter and leave the existing community harbour.

- HTO comment - There are several boulders underwater on the approach to the sealift which may get in the way of the barge. This should be looked at.
- HTO comment - Thinks the design is very good.
- HTO comment - The design will protect the boats from the western and southern winds (called Chinook), warmer air comes north and usually damages equipment with larger waves. The harbour will prevent this type of damage.

Ice Conditions

- HTO comment - Does not think that ice entrapment in the harbour will be an issue. Thinks that ice in the harbour will clear out in the spring. Thinks the existing design is OK with respect to ice.
- HTO comment - Ice usually clears out in June / July.
- HTO comment - The ice this year is very thin. It is the thinnest they have seen in a long time. The hunters have also noticed the ice is thin further away from Clyde on the hunting grounds.
- CBCL comment - Explained the ice interaction with the structure and the breakwater's role to breaking up the ice impact / forces.
- HTO comment - In the spring, when the lakes start to melt, the river water flows over the sea ice and the thaw begins at the river mouth. Slow trickle of fresh water thawing on top of the sea ice.

Geotechnical program

- CBCL comment - Explained that the program will start in late March / early April, drilling 18 holes up to 20 m below seabed with a crew of 11 people, working 24 hrs a day for 9 days. The geotechnical information will be used for design and for contractors.
- CBCL comment - Explained the Environmental Management Plan.
- HTO comment - Expressed that it was good to hear this information and these details. Now they know what to expect. Consultation and sharing information are important.
- HTO comment - Thinks it is good to see progress and to see activity in the community to indicate that the design is advancing and things are happening.
- HTO comment - See no immediate environmental issues and understand the safeguard being taken to protect the local environment.

Harvesting

- HTO comment - There are no important harvesting sites directly in the footprint of the harbour.
- HTO comment - Believes that during construction the narwhal may not come near the harbour because the noise will drive them away. During construction narwhal

will have to be harvested somewhere else. It's OK because this is temporary and narwhal will come back.

- HTO comment - The Arctic char usually travel on the other side of the bay and not near the harbour site. Arctic char are very mobile and travel large distances. They are adaptable and will avoid areas they don't want to go to. Anticipate that construction will not negatively influence Arctic char moving up the river into the lakes.
- HTO comment - Understands the importance of creating a fish passage at river crossing so that Arctic char can continue to migrate up the river.
- HTO comment - The clam harvesting area will not be impacted.
- HTO comment - Important to consider the entire food chain. The construction should avoid impacting even the smallest creatures, marine life and plankton because it will have impact on char and then larger animals up the food chain such as narwhal.
- HTO comment - Recently harvested 2,000 lbs of char near Clyde River and distributed to entire community.

River Crossing

- HTO comment - Used to be a river crossing where there is now just a road crossing the river. The crossing was temporary with two steel culverts filled in with crushed gravel. Thinks that a similar "temporary" crossing with culverts is a good option. The culverts can be removed after the project and the riverbed restored.
- HTO comment - The bridge is not strong enough, the previous construction they moved about 4 tons across it at a time, and the bridge was damaged. Not reliable.
- HTO comment - Important to have fish passage.

Seabed near the Harbour Site

- HTO comment - Wanted to understand if there would be disposal at sea. Would prefer if material could be used as land fill. If it is needed and the seabed is clear of life it can be disposed at sea, but it is better to dispose on land.
- HTO comment - It is unknown if there is significant sea life and valuable habitat on the seabed at the harbour site. Does not think the seabed there is of very high value.

Construction logistics

- HTO comment - Agreed that all of the traffic moving through town is a concern. Will want to see an escort vehicle or marshal in town to keep people safe.

Fuel Access

- CBCL comment - Explained that over time the shoreline may build up along the southern breakwater. Thinks this is OK as long as it does not impact the fuel supply

ship. Agrees that moving the bollard to the breakwater is a good idea as long as it does not impact the fuel ship mooring and offloading.

Wave conditions

- HTO comment - Strong waves from the south create the most problems. Boats have come off their anchor lines and been wrecked. The harbour is needed to protect the boats.

Chapter 4 Summary of Meetings with the Mayor of Clyde River

Danker Koliijn met with Jerry Natanine, the Mayor of Clyde River from 3:00 pm to 3:30pm at the Hamlet office, February 19, 2021. A summary of the conversation is provided below.

General

- Jerry reiterated the support and enthusiasm for the project both personally and on behalf of the community.
- Lots of developments happening in the community. There are plans to construct a territorial parks office that will bring more jobs and opportunity for research to the community. The SCH will play an important role, and act as critical piece of infrastructure within this plan.
- The SCH is not just a space for fisherfolk, it is a “hub” for the community and will serve many other functions / purposes.
- Last year they lost 3 boats due to waves from the south. Every time waves come from the south they have to haul the boats out of the water. This is cumbersome. Protecting the boats will greatly improve access to the water.
- In September/October the community hunts for narwhal. In February the community does lots of ice fishing and hunts for seal.
- Community wants to do more research to study narwhal, caribou and seal populations.
- Clyde River is a growing community, hoping to upgrade community hockey rink, increase settlement along the coast. Community is up to 1,200 people as of 2021.
- There are future plans to bring tourists to Clyde River in the summer months.
- Was happy to see the sealift outside of the SCH footprint. Thinks it is good that sealift can remain open during construction and that it will be somewhat improved. Thinks the latest SCH design is very positive with lots of benefits.

Discussion on River Crossing & Quarry

- Discussed use of barge and old haul road to ship armour stone across the Bay to the site. Danker noted that the shoreline at the barge site is very shallow. This is not practical for landing barges and hauling armor stone. Jerry likes the idea of the barge option, but due to depth limitations this may not be practical, acknowledged that other options will likely have to be considered.
- Very concerned about traffic through town on the main road. There are many people there and young children. This is dangerous. Would prefer to build a ring

road around the community for trucks to use. This ring road would also serve a great benefit in the future and improve access to airport. Acknowledges that the ring road may be too expensive to build under this project, but would be a nice solution.

- Discussed the use of marshals and escort vehicles with rock trucks to safeguard community. Jerry agreed this would be needed at a minimum.
- Acknowledges that the existing bridge cannot support rock trucks.
- Arctic char come up the river in July. They typically come up the river in the morning or in the evening. Large schools of char are in the bay and then go up the river. Not much char going up the river in the month of August. Char tend to return in late August, early September.

Discussions on Marine Mammals and Construction Sounds

- The community is very concerned about the reduced number of narwhal and Caribou in the region. Loss of narwhal is attributed to increased shipping along the shipping lanes up to Pond Inlet.
- Jerry mentioned that community acknowledges that during construction there will be loud noises and sound underwater associated with building the dock. The community is expecting that during the years of construction there may be less narwhal near the community. They understand this is temporary. Narwhal hunting may have to be done further away from the community, near the end of the bay. Community is willing to accept this temporary change in order to get the facility built. Expressed that after construction is complete the narwhal should come back and things can return to normal.
- Any efforts that can be made to reduce noise during construction needs to be made / taken. This is very important. Where possible, everything must be done to reduce impacts to narwhal.
- Mentioned research on marine mammals that used sensors, which may have done more harm than good.

March Geotechnical program

- Supported the geotechnical program and is eagerly anticipating the start of the program in late March / early April.

Jerry said he is going to write a letter of community support for the NIRB application. He understands how important it is to have letters of support and will work on it.

Danker Koliijn met with Jerry Natanine, the Mayor of Clyde River a second time from 11:00 am to 11:15am at Naujaaraaluitm the Clyde River Hotel on February 23, 2021. A summary of the conversation is provided below.

- Reiterated support for the project and asked how the visit to Clyde River had gone.

- Reiterated the concerns with hauling rock through the community and working together to make it a safe process.
- Discussed further development plans for the community including tourism, fishing and Parks Canada presence.
- Expressed that he was looking forward to the next step and meetings to get the harbour built.

Chapter 5 Drop In Visits with the RCMP and Conservation Officer

The following section summarizes conversations that were held with stakeholders including the RCMP and the local Conservation Officer.

RCMP Detachment

- Briefed the RCMP on the new harbour facility and the March/April 2020 drilling campaign.
- With many workers coming into the community, security can become a concern.
- RCMP indicated that they would prefer to be kept informed of the people and crews coming and going from Clyde River. Nothing was committed to at this time.
- Traffic control plans will have to be shared with RCMP.
- The harbour will be good for the community.

Wildlife Office (Wildlife officer)

- Arctic char move up the river into the lakes primarily in September.
- People like to fish Arctic char from the bridge because the water is deeper below the bridge. The river becomes shallower further upstream from the bridge. Community thinks that rubble left in the river from the old river crossing at the river ford has made the river less passable for Arctic char into the lakes.
- Wildlife officer got a lot of complaints when Tower Construction drove through the river crossing. Tower Construction did not have a license. The elders like to fish in the river near the town and complained that the river was being damaged.
- Consultation with the community for construction and placement of the river crossing will be essential. People need to be informed. Don't want to repeat the mistakes made by Tower Construction in their rock hauling program.
- A temporary crossing with culverts at the river ford should be OK.
- The harbour will act as a community hub – easier to interact with the hunters and trappers if they all gather in one place.
- Narwhal hunt can be done in another location during construction. Convinced that narwhal will come back after construction.
- There used to be a lot more Arctic char in the past. In the past they could catch them in the rivers easily with traps and they were much larger. These days there is less Arctic char.

Chapter 6 Summary of Ad Hoc Conversations

The following section summarizes conversations that were held with people from Clyde River when the opportunity arose.

Cultural Centre Catering

- Dhammika Amarapala interested and available to do catering during the construction of the harbour 2022-2025.
- Locally trained kitchen staff at the cultural centre can support the catering for construction crew. It would be good to get the kitchen staff involved in the harbour construction project. More people can be trained and involved in the process to create employment.
- Very supportive of the harbour construction project.

Clyde River's Qikiqtaaluk program councillor

- Addictions councillor with over 16 years of experience in Clyde River. Has heard talk of a harbour for over 10 years. This community has been waiting for this for a long time. Everyone wants the harbour.
- Glad you are here moving this forward. The community needs a harbour.

Fisherman at HTO Building

- Would like to continue using the existing community harbour, even after the new harbour is built.
- Uses the northern entrance to the community harbour. The northern entrance is deeper and easier to navigate out of the. The entrance to the community harbour near the sealift is shallower and has more obstacles/rocks. The better entrance is the northern entrance.
- Likes the harbour layout. Will be good for the community.
- The new harbour will also protect the existing community harbour from the waves. This is good.

Chapter 7 Closure

This report provides a summary of engagement activities that occurred related to Community Consultation #2. The next community consultation is planned for May or June 2021.



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APPENDIX A

Presentation #2



ᑲᓴᑦᑲᑦ ᑕᓴᓴᑦ Clyde River

ᑕᓴᓴᑦ ᑕᓴᓴᑦ ᑕᓴᓴᑦ ᑕᓴᓴᑦ Harbour Development Project



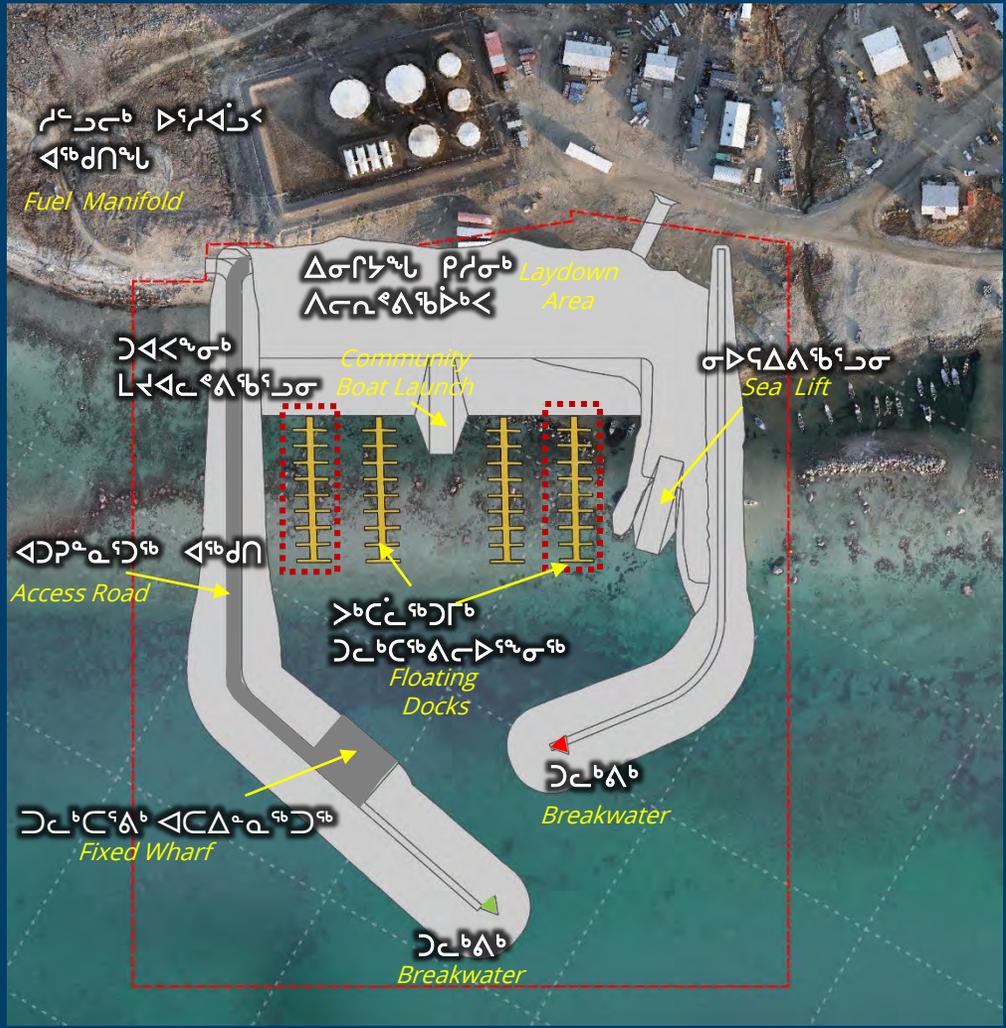


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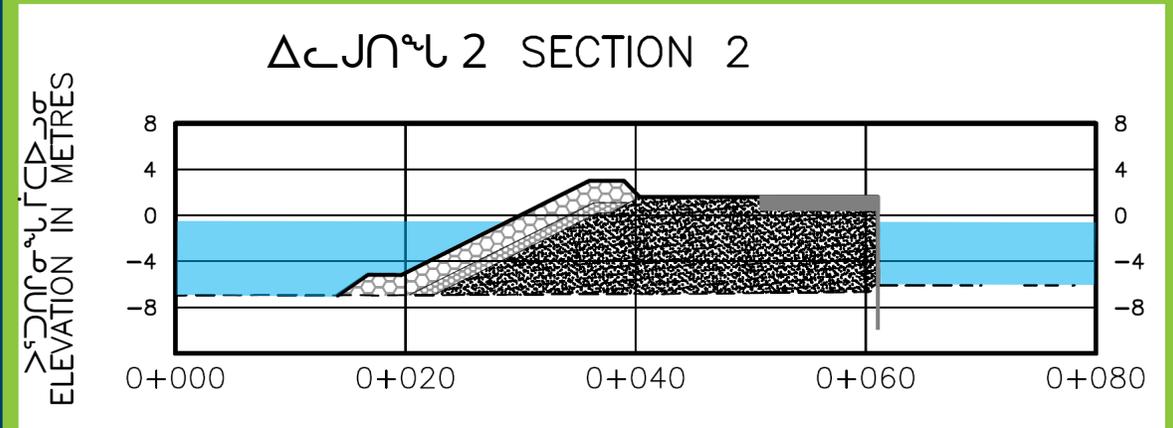
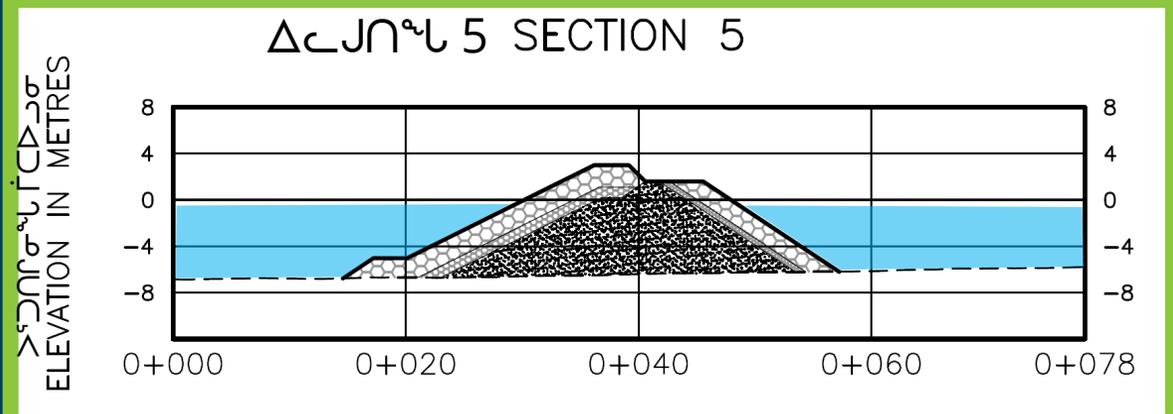
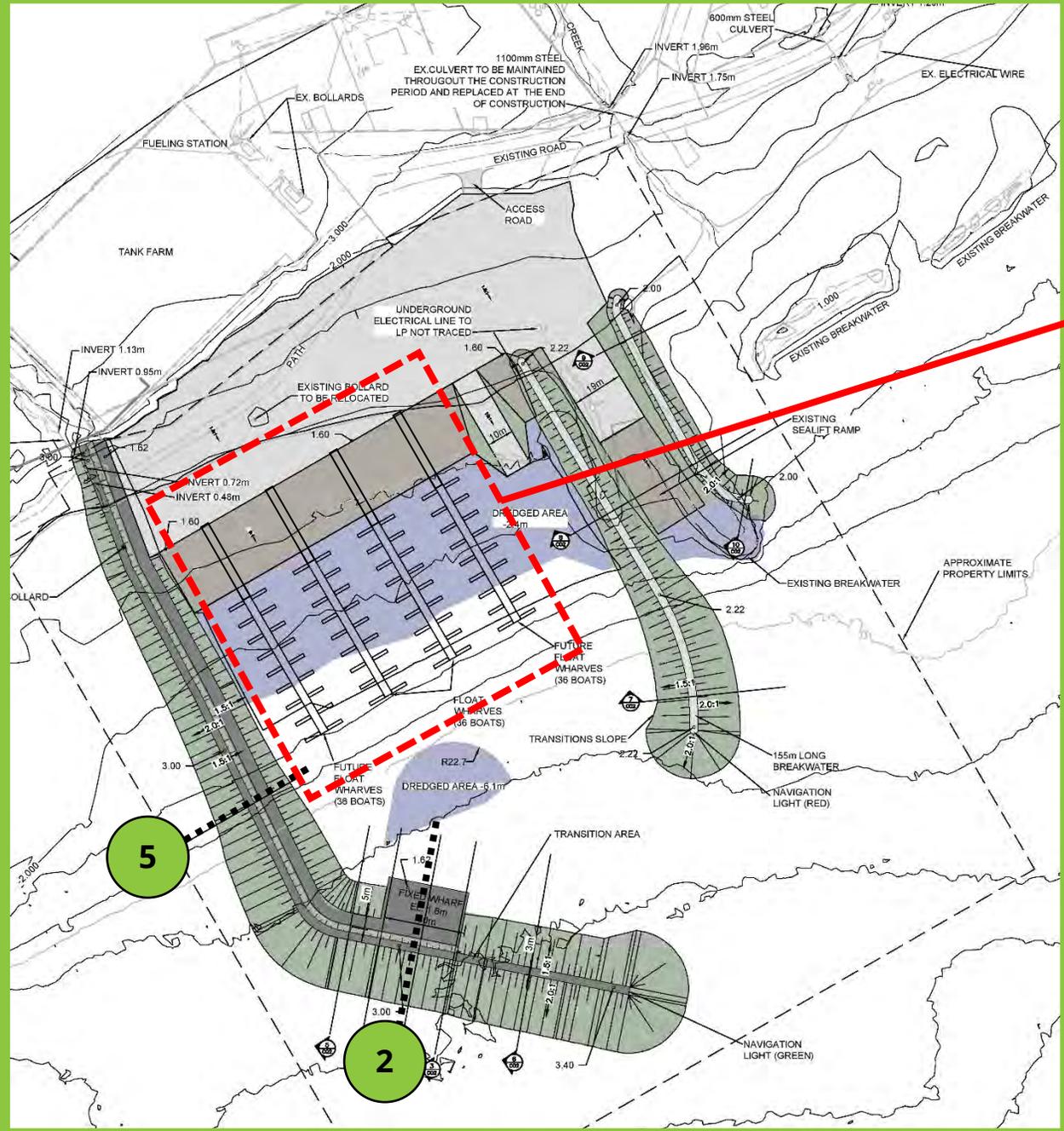
- | | | | |
|-----------------------|---|---------------------------|---|
| 1. ለኑክሌር ስፔሻላይዥን ልግግር | ✓ | 1. Feasibility Study | ✓ |
| 2. በስኬሞቲክ ካዲፖሊሽን | ✓ | 2. Schematic Design | ✓ |
| 3. ልግግር ስፔሻላይዥን | ← | 3. Refine Design | ← |
| 4. ካዲፖሊሽን በስኬሞቲክ | | 4. Construction Documents | |



Design Steps



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Pangnirtung example





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Looking for Input

(ᓄᓄᑦᑎᑦᑎᑦ ᐃᓴᑭᑭᑦᑎᑦ) TC NPP Community Questions :

1.

ᐃᓴᑭᑭᑦᑎᑦ ᐃᓴᑭᑭᑦᑎᑦᑎᑦ ᑕᓄᓄᓄ ᐃᓴᑭᑭᑦᑎᑦ ᐃᓴᑭᑭᑦᑎᑦ?
Are there any navigation concerns with the new harbour?

2.

ᐃᓴᑭᑭᑦᑎᑦᑎᑦ ᐃᓴᑭᑭᑦᑎᑦ ᑭᓄᑭᑭᑦᑎᑦᑎᑦ
Are there any concerns with the navigation lights?

3.

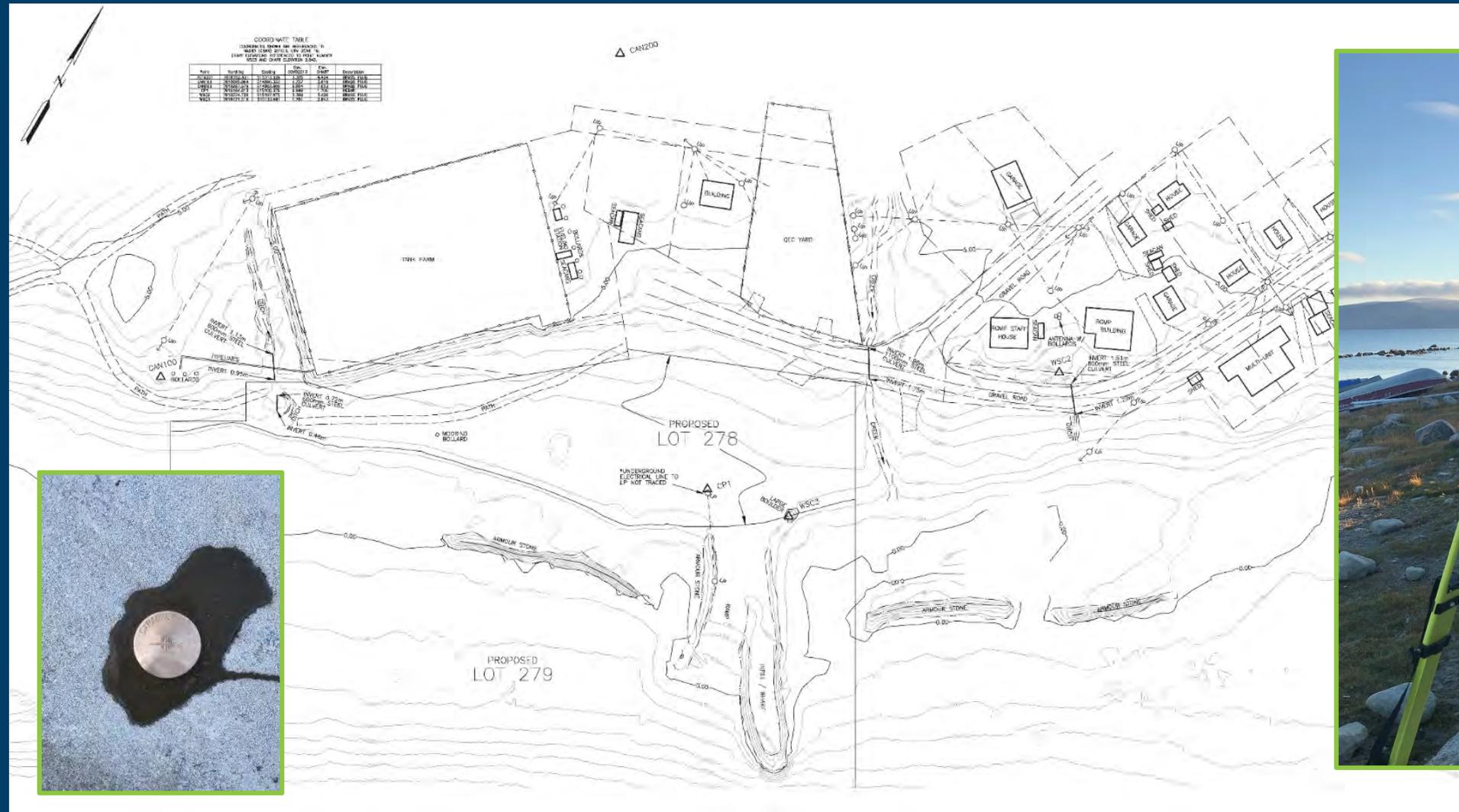
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Are there any concerns with the location of the navigation lights?

ΔΛῆ< ΔΠσῶςσῆ Bathymetry



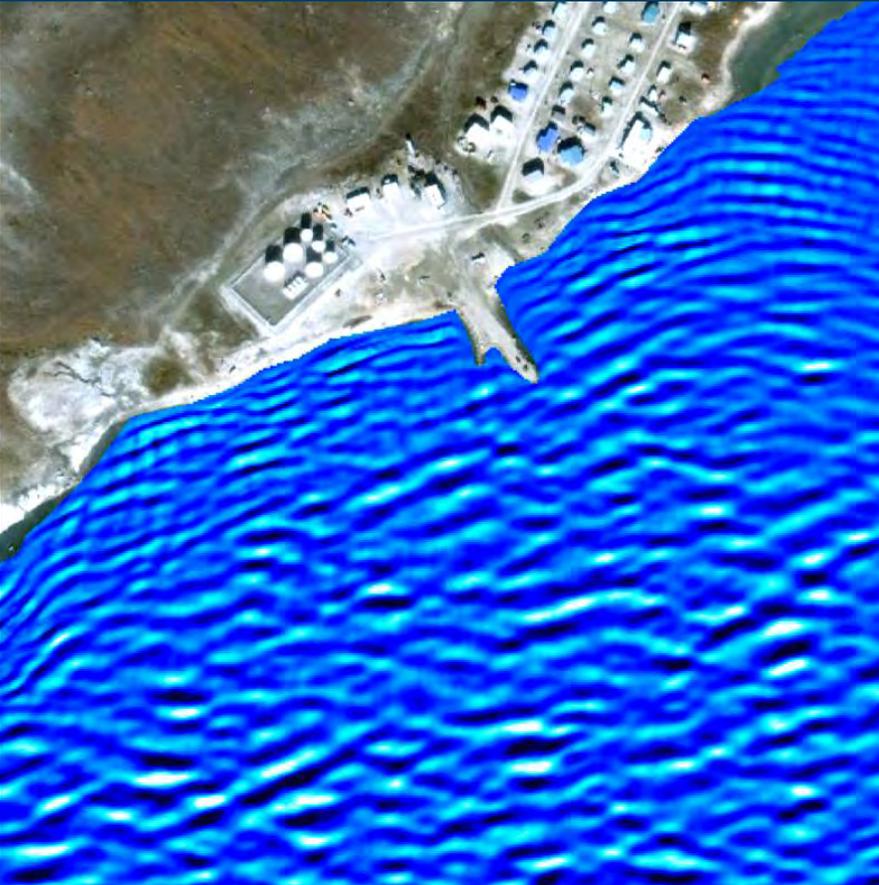


Topography

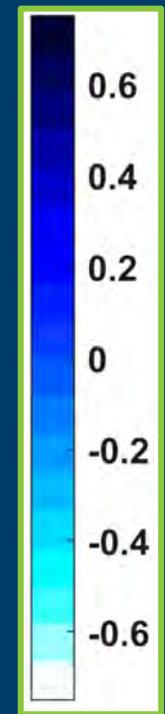
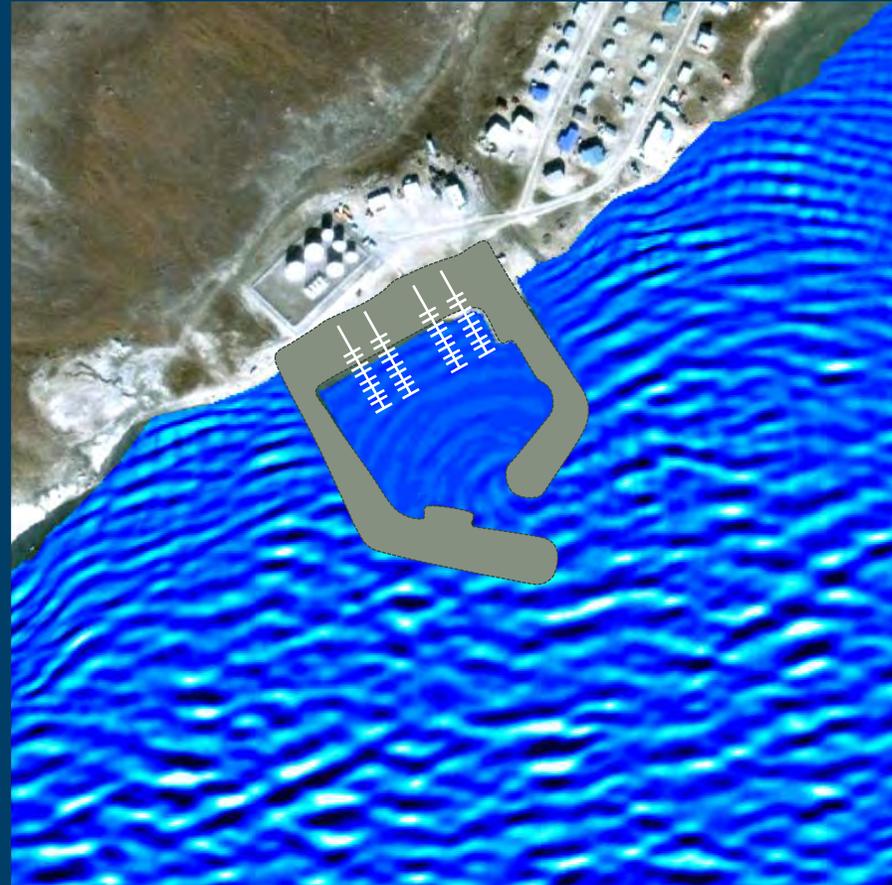


Coastal Engineering

Existing Situation



Proposed Situation

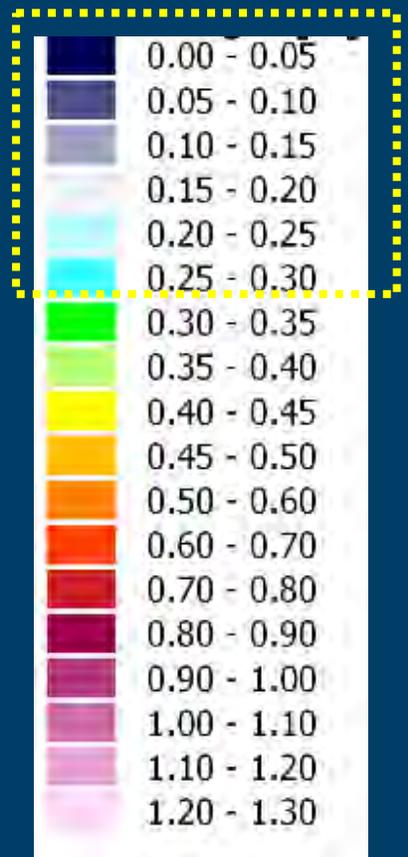
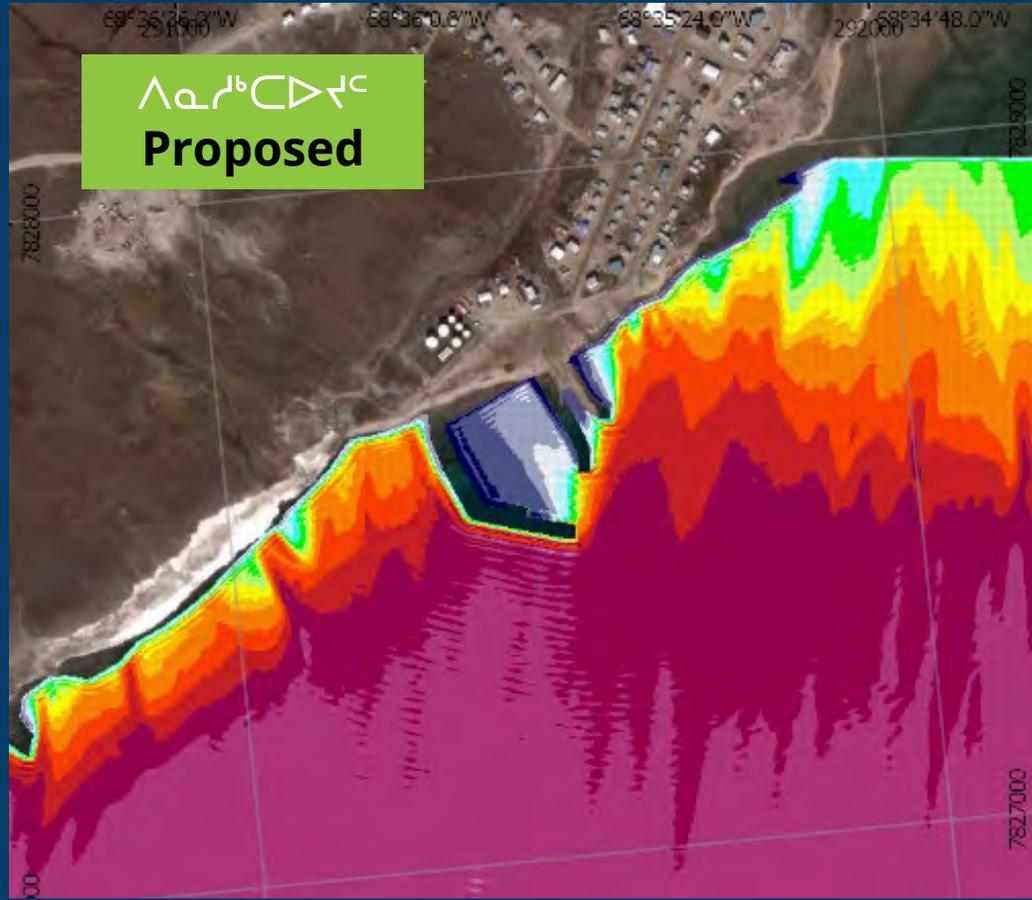
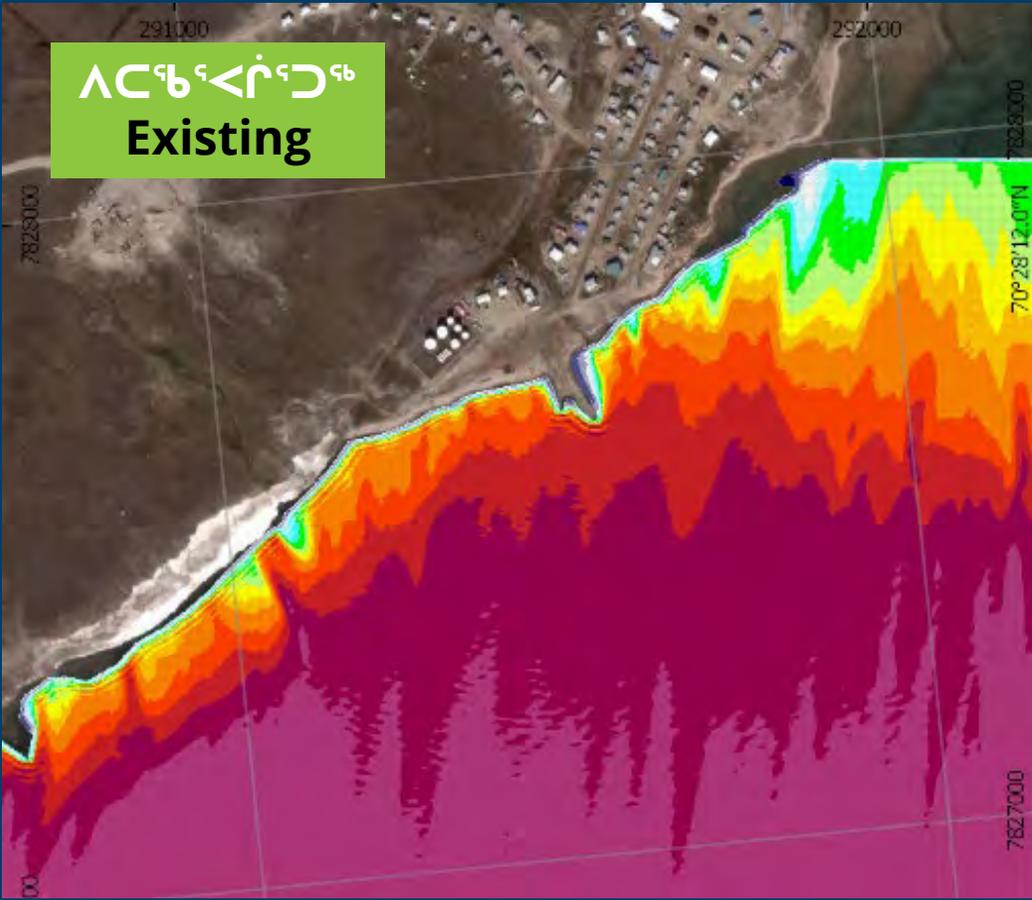


Surface Elevation (wave height - m)



Coastal Engineering

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Wave Height [m]





Climate Change Considerations

- Sea level rise
- Sea ice
 - Thickness, mobility
 - Dates of break-up and freeze in
- Changes in waves
- Loss of permafrost

- **Sea level rise**
- **Sea ice**
 - Thickness, mobility
 - Dates of break-up and freeze in
- **Changes in waves**
- **Loss of permafrost**

Δ⁹β⁹λσ ▷↳ϛϛϛσ⁹Γ⁶ ⁹β▷↑ϛϛϛ⁹ Λρ◁⁹σ◁⁹ϛ⁹
Upcoming Geotechnical Work



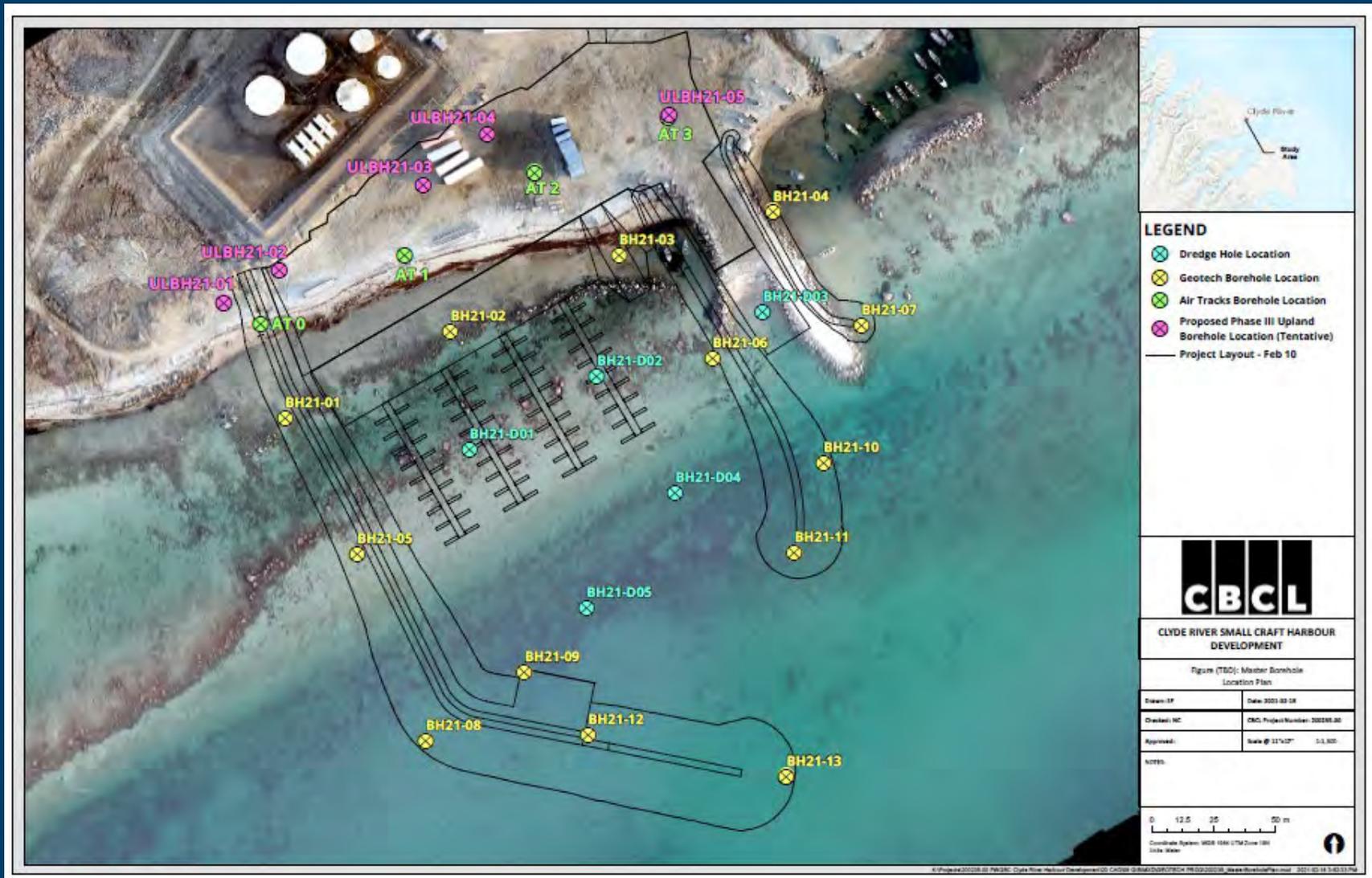
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Geotechnical - Harbour

1. ᐱᐅᓂᓄᓐ ᐱᐅᓂᓄᓐ ᐱᐅᓂᓄᓐ 15
Program starting late March
2. ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ
ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ
Drill will be flown in, in pieces and put together in Clyde River
3. ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ,
ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ
ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ
ᓄᓄᓂᓄᓐ ᓄᓄᓂᓄᓐ
Heated shack will be built for the rig, the shack will be on skids and dragged to each drill location using a front-end loader

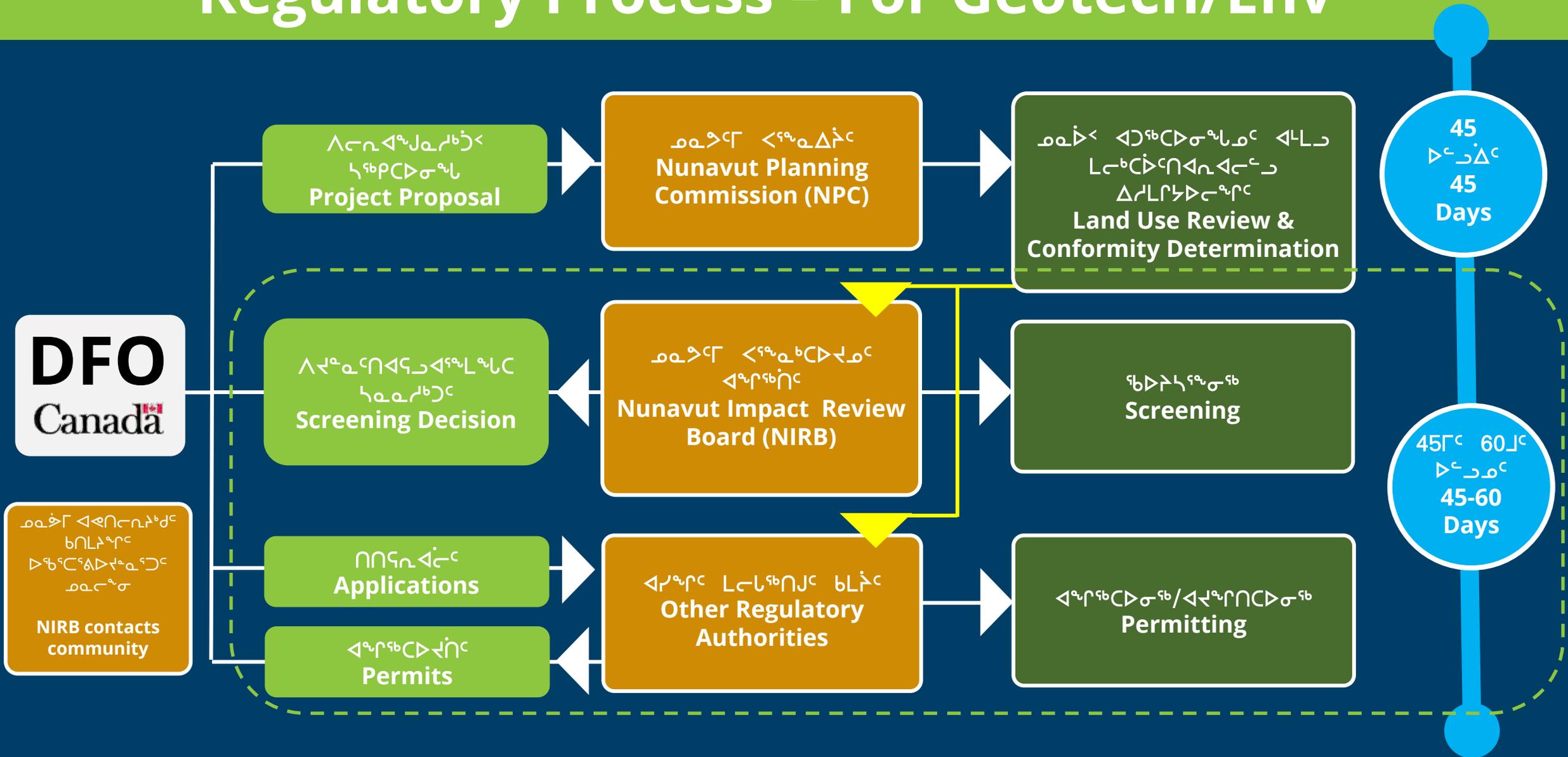


Geotechnical - Harbour





Regulatory Process - For Geotech/Env





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Environmental Work

ᐱᓚᓕᓕᓐ 2020 ᓂᐸᓂᓐ ᐱᓚᓕᓕᓐ (August 2020 samples)

1. ᓂᐸᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ
Samples of harbour sediment were clean.
2. ᓂᐸᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ
Samples were collected in the uplands.
3. ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ
Test pits were dug with a backhoe.
4. ᓂᐸᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ ᐸᓂᓐᓂᓐ
Water seepage in the test pits had fuel/hydrocarbons.



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Options for River Crossing

Options Under Review



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Barge Crossing



- ᐱᑲᑲᑦᑲᑦᑲᑦ ᐱᑦᐅᓯᑲᑦ
- ᐅᑲᑲᑦᑲᑦᑲᑦ
 - ᑲᑲᑲᑦᑲᑦ

- Existing Structure**
- Retrofit
 - Replace



- ᐅᑲᑲᑦ
- ᐅᑲᑲᑦ ᐃᑲᑲᓯ
 - ᐃᑲᑲᑦᑲᑦᑲᑦ ᐃᑲᑲᓯ

- Ford**
- New crossing
 - Shallow crossing



ԱՐՎԵՆԱԿԻՅԵՆ Schedule

APPENDIX B

Photographs of Stakeholder Update Meeting and IQ Session

Appendix B: Photo Log



Photo 1: Stakeholder Update Meeting



Photo 2: Stakeholder Update Meeting



Photo 3: Stakeholder Update Meeting



Photo 4: Stakeholder Update Meeting

Appendix B: Photo Log



Photo 5: Stakeholder Update Meeting



Photo 6: Stakeholder Update Meeting



Photo 7: Stakeholder Update Meeting



Photo 8: Stakeholder Update Meeting

Appendix B: Photo Log



Photo 9: Stakeholder Update Meeting



Photo 10: Stakeholder Update Meeting



Photo 11: IQ Session



Photo 12: IQ Session

Appendix B: Photo Log



Photo 13: IQ Session



Photo 14: IQ Session

APPENDIX C

Participatory Map



Solutions today | Tomorrow **IN** mind

f   in
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