TC Energy's Geotechnical Work Summer 2025 Frequently Asked Questions

Borehole Drilling

1. **What work is being completed?**
   Offshore geotechnical investigations will be conducted in Georgian Bay and will include borehole drilling below the lakebed to better understand the soil and rock composition. Due to the depth of the water, the boreholes will be drilled from a temporary barge platform that will be positioned in Georgian Bay.

2. **What is borehole drilling?**
   Borehole drilling is a method used to investigate subsurface conditions by drilling narrow, deep holes into the ground or seabed. In the context of offshore geotechnical work—such as the drilling planned in Georgian Bay—it plays a critical role in understanding the geological and environmental conditions beneath the lakebed.

3. **Why is this work needed? Is it common?**
   This program will provide information on the conditions of the soil and bedrock and will help to inform ongoing design of the Project. This type of work is common as many types of projects include components that extend into bodies of water, which requires the geological conditions to be investigated. Similar programs have been undertaken in the Great Lakes.

4. **Where will this work take place?**
   The barge will be temporarily positioned within the maritime exclusion zone, ranging from approximately 600 metres to 1000 metres offshore, directly east of 4th Canadian Division Training Centre in Georgian Bay.

5. **When will borehole drilling begin?**
   The borehole drilling is expected to begin in mid-July and extend through to the end of September.

6. **What are the hours of work?**
   The work is generally anticipated to take place between 7:00 AM and 7:00 PM on a daily basis, weather permitting.

7. **Will this activity contribute to local economic benefits for Meaford?**
   Field crews are expected to stay at local accommodations and will purchase meals and supplies locally.

Temporary Barge Information

1. **When will the barge be installed?**
   The barge is expected to be installed in early July.

2. **What is the size of the barge?**
   Due to the depth of the water, the boreholes will be drilled from a temporary barge platform that will be positioned in Georgian Bay. The barge platform is approximately 12 metres by 18 metres and will be raised a minimum of approximately 3 metres above the water. The barge has four legs which are approximately 0.76 metres in diameter. The legs will be slowly lowered onto the lakebed to allow the barge platform to be raised.

3. **Will the barge contain lighting?**
   The barge will be equipped with navigational lighting for safety and visibility purposes.

4. **Will the barge be removed?**
   Following completion of the borehole drilling, the barge will be removed from site.

5. **How will staff access the barge?**
   The field teams will travel to the barge daily by boat from the Meaford Marina or nearby commercial dock.

Regulatory

1. **Which authorities have oversight for this work?**
   This work requires oversight from both provincial and federal authorities, specifically the Ontario Ministry of Natural Resources (MNR) and the Department of Fisheries and Oceans Canada (DFO). Department of National Defence has also been engaged and has approved this activity.

2. **What happens after this work is completed? Can we see the results?**
   Laboratory testing will be completed on the sampled materials and will be incorporated into the design documents as part of the upcoming regulatory process. All regulatory documents will be available for public review and feedback.

3. **Which agency is responsible for noise?**
   In Ontario, the Ministry of the Environment, Conservation and Parks (MECP) establishes noise limits at receptors based on the area classification of receptors.

Noise

1. **Is the borehole drilling expected to be loud?**
   In Ontario, the Ministry of the Environment, Conservation and Parks (MECP) sets noise limits for stationary sources such as construction or industrial equipment. The borehole drilling will comply with these established regulations.

   It is anticipated that the borehole drilling will generate noise. However, the work will occur from the barge platform positioned 600 to 1000 metres offshore. It is expected that sound levels from general drilling operations will be within the most restrictive of MECP's noise limits at the nearby homes and cottages along the shoreline of Georgian Bay. At these distances, noise from the drilling activities may be perceivable at times. Drilling activity—when heard from shore—is expected to be comparable to a refrigerator hum.

2. **Will noise monitoring be conducted?**
   The Project team will implement a sound monitoring plan with monitors stationed on a boat or from shore.

3. **Will this work cause ground vibration?**
   No. We do not anticipate this type of work to cause significant ground vibrations.

Environment

1. **How will you ensure there are no impacts to Georgian Bay?**
   Protecting Georgian Bay is a priority for TC Energy. Multiple layers of design, procedures and oversight will be implemented to demonstrate protection of Georgian Bay. The work is being planned in compliance with DFO advice and guidance, including adherence to recommended timing periods, to avoid impacts to fish and fisheries. DFO has reviewed the planned program and has issued a Letter of Advice which will be followed during these activities.

   The borehole drilling in Georgian Bay will be conducted using a dual-casing system designed to isolate the drilling process from the surrounding Georgian Bay waters:

   - **Primary Casing**: A smaller steel pipe will be inserted into the lakebed to fully contain the drilling activity. This casing prevents any interaction between the drilling fluids and the water. All water that comes into contact with the drilling process is pumped out and removed from the site for proper disposal.
   - **Secondary Casing**: A larger steel pipe will surround the primary casing and serves as an additional safeguard. This layered approach ensures that even if there was some leakage outside the primary casing, the secondary casing would still prevent environmental exposure.

- **Sediment Control**: The dual casings are designed to prevent the release of sediment or soil/rock cuttings into Georgian Bay. Return water containing sediment is captured and stored in tanks on the barge deck – it is not discharged into the lake.
- **Cement Plugging**: Once drilling and testing are complete, each borehole is filled with cement to seal it permanently and prevent any future water ingress.
- **Hydrocarbon Safety**: Although oil and natural gas deposits are not expected, a safety device will be installed on the primary casing to prevent discharge in the unlikely event hydrocarbons are encountered.

2. **Will TC Energy have an environmental protection plan in place?**
   Yes. Our procedures include standards to address environmental hazards and incidents, in the event that they occur. These procedures involve stopping work, isolating the hazard, cleaning up, and reporting the incident to the relevant regulatory authorities.

   The Project Team will conduct ongoing monitoring to ensure environmental compliance.

3. **Will borehole drilling cause turbidity in the water?**
   Borehole drilling in Georgian Bay is engineered to avoid causing turbidity through physical isolation and strict environmental controls. The most critical turbidity control measure is the use of a 200 mm diameter steel casing or cylinder that is slowly pushed into the lakebed before drilling begins. This isolates the drilling process from the surrounding water column, ensuring that no sediment or drilling fluid escapes into Georgian Bay.

Safety

1. **Is this work safe?**
   Yes. The Project Team has retained WSP, a leading Canadian engineering firm to manage this work. WSP's team of expert technical contractors, with direct experience in similar offshore drilling in the Great Lakes, will be leading this work in Meaford. Only contractors with strong safety records are hired. Work will be stopped when inclement weather is forecasted including excessive winds, waves or lightning. The procedures and processes in place prioritize safety and environmental protection.