Attachment 2: Provincial Comment Table for the Georgina Island Fixed Link Project – Draft Initial Project Description (IPD)

Draft IPD submitted by the Chippewas of Georgina Island First Nation (the Proponent)

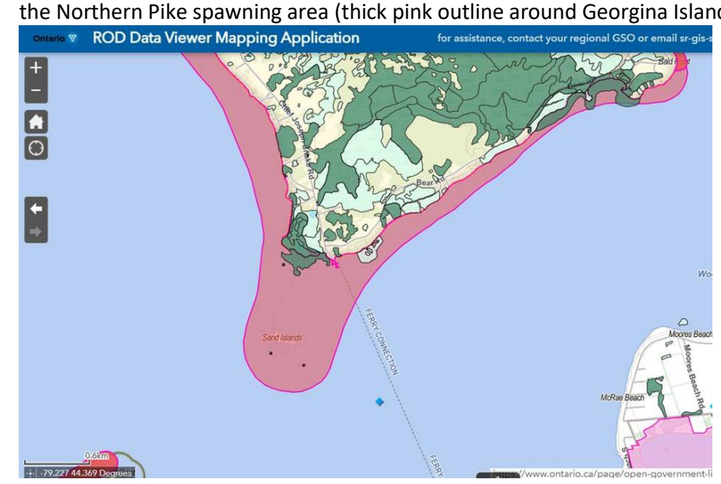
Use this document to provide comments on the Georgina Island Fixed Link Project (the Project). The document consists of two tables:

- **Table 1** will enable you to describe potential project effects.[1] The Impact Assessment Agency of Canada (the Agency) requests detailed advice to assist the Agency in understanding whether the proponent has adequately characterized potential adverse effects of the Project and to improve the proponent's Initial Project Description before a formal submission. Refer to prompts in the table to guide your responses.
- Error! Reference source not found. will facilitate the collection of general or editorial comments.

Table 1: Description of the potential effects of the Project

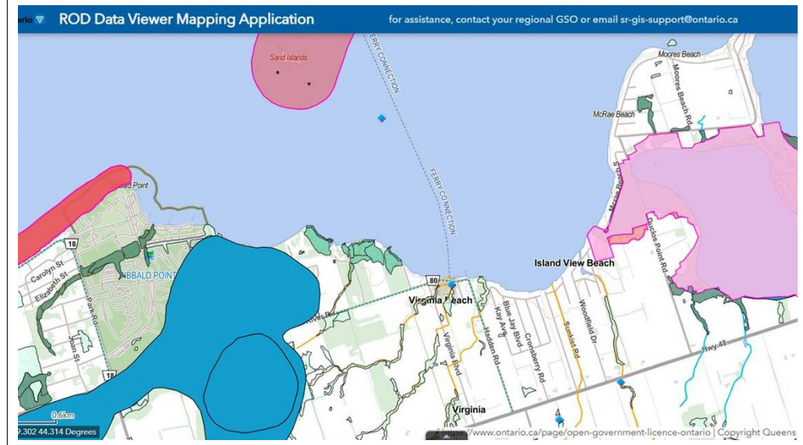
Comment ID	Document Reference	Valued Component	Project Component	Description of the Potential Effect (Context and Rationale)	Powers, Duties and Functions	Instructions to the Proponent
1	Throughout Document	Document Edit		General edit		Please correct the Ministry of Northern Development, Mines, Natural Resources and Forestry acronym to: NDMNRF.
2	Part A – General Information Page 7	Document Edit		Occupational Authority		Construction activities on Crown Land (including lakebed) will require a work permit under the Public Lands Act. Permanent/long term bridge footings, abutments, piers, and other occupations of Crown Land will require easements, leaseholds, or tenure. (occupational vs. operational)
3	Part A - General Information Pages 8-11	Indigenous Communities		Indigenous Consultation		As the IPD indicates, approval processes (including those under the Public Lands Act) trigger the Crown's Duty to Consult. Due to the scale of the project, NDMNRF would expect all Williams Treaty First Nations communities to be consulted. NDMNRF notes that the project team has already initiated consultation with other First Nations and the Metis Nation of Ontario and in some cases already received letters of support. NDMNRF expects that thorough consultation at these early stages will be beneficial for consultation occurring later at the detailed design and permitting stage.
4	Part B – Project Information Page 13	Alternatives consideration		Roadway Connections		The IPD only considers the bridge, causeway, and culverts to be the permanent structures needed for this project. NDMNRF recommends that this list include the reconfigured roadways that will be required where the bridge/causeway terminate. Based on the alternatives considered and presented, these roads will require major disruptions to the surrounding natural areas including significant tree removal, fill, and grading. Further, since the IPD indicates that the road accesses will be built prior to the bridge/causeway to accommodate the trucks and heavy equipment (see Section 10 Page 16), the roads should be considered part of the construction activities for the bridge/causeway. NDMNRF further recommends that any road reconfigurations and approvals, should be received from York Region or the Town of Georgina, as appropriate, prior to selecting the preferred bridge/causeway alignment.

[1] *effects* in this context means changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes.

5	Part B – Project Information Page 18			Potential Alternatives		The September 2021 report carried out by Georgina Island First Nation (GIFN) and WSP, identifies the preferred alternative as Option 3 for a fixed link to the island. Their larger study area boundary however still includes the possibility of an Option 2 which would follow the existing ferry route to the island. Option 2 was not the preferred option because it did not make use of the sand islands and thus cost more to build. From north to south, Option 3 would cut through the southwest shore of Georgina Island, the peninsula of shoals around the Sand Islands and then diverge with a possible western route and an eastern route to the mainland. The 2.8-3.1 km long fixed link from north to south would entail several hundred metres of new road on Georgina Island, a 1 km long causeway through wetlands at the southwest corner of Georgina Island and its shoals around the Sand Islands. South of the shoal, the fixed link has two possible routes that would be bridged for 1.2 kms followed by a 500m causeway to the mainland. The causeways at either end of the bridge will have an 85m wide footprint to accommodate a 2-lane road and the sloping fill and armouring for the causeway. Some additional culverts may be put in the causeways if deemed necessary to maintain current flows. Option 3 would also require a new 800 metre to 650m long access road from the mainland shore south to Black River Road with two possible routes proposed to connect up to the two possible southern routes for the fixed link in Option 3. Option 3 and the two southern routes they have recommended for connection to the mainland will result in significant natural heritage impacts to wetlands and woodlands on the mainland and the southwest part of Georgina Island and to aquatic and island habitat around the shallow peninsula of shoals around the Sand Islands off the southwest shore of Georgina Island. The impacts/losses with Option 3 include the following: • Loss of 8.5ha of Muskellunge, Northern Pike and other fish nursery/spawning habitat on the shoals around the Sand Islands. Option 3 with its 85m wide road and causeway footprint will cut a 1km long swath through this fish habitat). The image below shows the Northern Pike spawning area (thick pink outline around Georgina Island) 

						• Losses of 8.5 ha of open water marsh habitat on Provincial Lands around the Sand Islands that support Hard-stemmed Bulrush beds and submerged pondweed beds (Option 3 will cut a 1km swath through this open water marsh habitat as update by the Toronto Zoo in 2015). • Impacts to a sensitive colony of gulls, Caspian Terns, and Common Terns on one of the Sand Islands (The Option 3 causeway will pass through these islands). The image above shows the Caspian tern nesting/colony sites (dark blue dots in and around the Sand Islands). • Loss of 2 ha of provincially significant open water hard-stemmed Bulrush and cattail marshes in the southwest portion of Georgina Island (the fixed link will cut right through a 200 metre stretch of this PSW on Provincial Land for the aquatic portion and on First Nation land for the island portion. • Loss of significant woodlands (1.6 ha) on the mainland for the new western access road to the fixed-link (the western route for Option 3 will have a new access road to the fixed link that will cut right through the middle of one of the largest forest blocks on the south shore of Lake Simcoe with the loss of an 800 metre length of woodlands for the road). • Loss of significant woodlands (0.8 ha) and wetlands (1 ha) on the mainland for the new eastern access road to the fixed-link (the eastern route for Option 3 will have a new access road to the fixed-link that will cut through a 150m length of high quality Silver Maple swamp, one of the largest remaining Silver Maple swamps along the south shore of Lake Simcoe (Virginia Beach Wetland Complex proposed as provincially significant) and a further 400m length of significant woodlands for the new road). • Loss of up to 10ha of potential Species at Risk and sensitive species habitat (based on the report the shoals around the Sand Islands and the wetland along the southwest side of Georgina Island support Snapping Turtles, Blanding Turtles and possibly Least Bittern and Barn Swallow. It is also possible that Map Turtles are present, as they are known to occur in Lake Simcoe just to the east by the Talbot Rivermouth). This information can be confirmed with MECP. • Possible impacts of a 1 km long causeway extending south of Georgina Island and a 500 metre causeway extending north from the mainland shore on winter ice buildup and breakup and on currents in the southeast portion Lake Simcoe (lake currents on the south side of Georgina Island appear to be building up and maintaining a shallow shoal and the Sand islands off the southwest side of Georgina Island. Will this sand deposition be curtailed by the causeway? Could it result in possible erosion of the shoals, the Sand Islands and the significant fish and aquatic habitats in this area? What are lake currents doing along the mainland shore? Could the causeway in this area also change the pattern of sand buildup and erosion along the mainland shore?). Option 3's environmental impacts could be minimized if the northern half of the fixed link was repositioned to the east to avoid more of the significant natural heritage features around the shoals of Sand Island and the southwest corner of Georgina Island with its new connection to the island shore at the existing ferry docks. For the southern half of Option 3, re-positioning the fixed-link on the mainland shore to a midway point between the two proposed southern routes would avoid the significant woodlands and wetlands on the mainland. The new access road would be routed through a field between the blocks of woodland to the west and the block of woodland and shoreline swamp to the east. The revised Option 3 with its straight fixed-link

						from the mainland to Georgina Island would also be shorter than the existing Option 3 routes (see attached Figures 1 & 2). NDMNRF notes that Option 2 would have the least environmental impact because it would follow the existing ferry route which is already disturbed by dredging for the ferry (see Figures 1 & 2). It would also stay to the east of the highly significant fish spawning/nursery beds, Species at Risk and large wetlands concentrated around the shoals of the Sand Islands and the southwest corner of Georgina Island. As well Option 2 would cause no impacts to natural heritage features on the mainland because it would use the existing road that already meets the shore. In contrast Option 3 would cause major impacts to wetlands and woodlands on the mainland with the two proposed routes to the fixed-link requiring a new access road that would cut through significant wetlands and/or woodlands. In the appendix, the earlier Neegan/Burnside report from 2008 noted Option 2 (their Alternative 3) would cause the least environmental impact while Option 3 (their Alternative 2) would cause the greatest environmental impact. NDMNRF recommends that Option 2 remain as an option in the Impact Assessment; the IPD does note a study area which encompasses both Option 2 & 3 and many of the advantages identified for the preferred alternative on Page 19 (e.g., more reliable health care, quicker ambulance services, improved food security, easier and safer access to Georgina Island in the winter months) are true for both Options 2 & 3.
6	Part C – Location Information Page 30 paragraph 3	Fish Populations		Improvements to this paragraph/section are recommended.		Though it is true that the lake has been shifting from coldwater species to warm water species, a number of coldwater species continue to thrive in Lake Simcoe. NDMNRF notes: • Lake trout are currently of concern in Lake Simcoe. NDMNRF is hoping that increased stocking efforts and other management techniques will result in a population rebound. • Whitefish appear to be maintaining their populations. About 80% of total catch are wild/unclipped fish. Further, NDMNRF continues to stock 140,000 Whitefish annually. • Cisco have made a notable rebound without any stocking efforts. In fact, NDMNRF reopened the Cisco season in 2015. NDMNRF has identified northern pike spawning areas west of the ferry launch on the mainland side. It appears that both option 2 and 3 will impact these (option 3 more so) these shoals. These shoals are important to the re-establishment of the Lake Simcoe coldwater fishery. NDMNRF recommends survey work to confirm the presence/extent of spawning shoals in the study area, and further consideration for avoiding/mitigating damage to these shoals.
7	Part D - Federal, Provincial, Territorial, Indigenous, and Municipal Involvement Page 37	Consultation		Agency functions		NDMNRF recommends that the powers/duties/functions of NDMNRF be modified to include the following functions that are relevant to the fixed-link project: • identification and classification of Provincially Significant Wetlands (PSWs) and Areas of Natural and Scientific Interest (ANSIs). • Completing Fisheries Assessment work within the Lake Simcoe Watershed (LSFAU) to guide management • Administer the Public Lands Act

8	Part E – Potential Effects of the Project (Table 2 Page 41-49)	Potential Environmental Effect		Potential for new fisheries habitat		The majority of the substrate in the proposed subject area is soft with plentiful aquatic plant growth. Many warm and cool water species prefer a harder, cleaner surface area for spawning and the depth across this section from the mainland to the Island would be ideal. As such, NDMNRF recommends that the project team consider dispersing a mix of pea gravel, river stone, rocks, woody debris and lunker logs within the vicinity of each bridge abutment to support fish spawning in this area. Since the bridge abutments will themselves attract fish (i.e. shading and texture), the addition of the above around each piling would improve warmwater fish and baitfish communities in the area.
9	Part E – Potential Effects of the Project (Table 2 Page 41-49)	Potential Environmental Effect		Vegetation, Wildlife and Wildlife Habitat		You will see in the first screenshot we also have identified northern pike spawning areas that both option 2 and 3 will impact (option 3 more so) . NDMNRF records indicate a deer yard close to the mainland connection presented in Option 3 (See darker blue area on map below) . Two mainland connection options are presented for option 3 – one to the east of the deer yard and one directly through the deer yard (not preferred). The proposed north/south road would intersect blocks of woodland and swamp habitat that are directly connected to this deer yard and provide treed corridors running east to west for wildlife movement. With the increase in vehicular traffic in this area, there may be a concern with respect to deer/motor vehicle collisions which should be considered. 
10	Part E – Potential Effects of the Project (Table 2 Page 41-49)	Potential Environmental Effect		Erosion and Sediment Control		NDMNRF recommends that a coastal engineer evaluate the impact that the causeway and bridge abutments and piers will cause on sand and sediment flow in Lake Simcoe. It should be noted that sediment flow changes could alter shoreline processes and wave actions further than the identified project area.

11	Throughout			Provincial Plan Area Consistency		The project is subject to provisions of the Lake Simcoe Protection Plan (LSPP). The Impact Assessment should clearly identify how Section 6 Policies of the LSPP have been met/addressed.