

APPENDIX F
Detailed Evaluation of Alternatives Tables

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Scarborough Waterfront Project Detailed Evaluation of Alternatives Tables – West Segment

Table 1 Detailed Evaluation of the West Segment Alternatives. Alternatives are compared and ranked *relative to each other*. Ranking measures include: MP = Most Preferred, P = Preferred, IP = Intermediate Preferred, and LP = Least Preferred.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2A (SHORT SPAN BRIDGE)	ALTERNATIVE 2B (LONG SPAN BRIDGE)	ALTERNATIVE 3A (SHORT SPAN ISLAND-BRIDGE)	ALTERNATIVE 3B (LONG SPAN ISLAND-BRIDGE)	ALTERNATIVE 4 (CAUSEWAY)	ALTERNATIVE 5A (NARROW BEACH + BRIDGE)	ALTERNATIVE 5B (WIDE BEACH)
Protect and enhance terrestrial and aquatic natural features and linkages	Extent of aquatic habitat enhanced or diminished			CRITERION-LEVEL RANKING	Intermediate Preferred	Preferred	Intermediate Preferred	Intermediate Preferred	Preferred	Intermediate Preferred	Intermediate Preferred	Intermediate Preferred	Preferred
					No fill, but no improvement in morphology or shoreline substrate type diversity.	High amount of fill (40,000 m ²). Increase in morphology through a 30% increase in shoreline irregularity. Greatest improvement to shoreline substrate type diversity through a high increase in cobble and a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.	Minor amount of fill. No increase in morphology as shoreline irregularity remains the same. No improvement to shoreline substrate type diversity.	Minor amount of fill. No increase in morphology as shoreline irregularity remains the same. No improvement to shoreline substrate type diversity.	Moderate amount of fill (12,000 m ²). Highest increase in morphology through a 60% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity through a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.	Moderate amount of fill (9,000 m ²). Increase in morphology through a 40% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity through a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.	Moderate amount of fill (15,000 m ²). No increase in morphology, as shoreline irregularity remains the same. Some improvement to shoreline substrate type diversity through a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.	High amount of fill (49,000 m ²). Increase in morphology through a 30% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity through a moderate increase in boulder substrate, relative to the previously existing sand-dominated substrate.	Highest amount of fill (109,000 m ²). Second-highest increase in morphology through a 50% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity through a moderate increase in boulder substrate, relative to the previously existing sand-dominated substrate.
		Ability to increase shoreline morphology by increasing shoreline irregularity	As supported by long-term monitoring data, open coast shorelines with more complex profiles result in increased species richness. Each Alternative results in an impact to shoreline morphology. Increasing the morphology via increasing irregularity improves essential aquatic habitat and benefits local resident and migratory fish (including SAR Atlantic Salmon and American Eel) while providing optimal functional open coast habitat. In particular, a complex shoreline profile provides for increased foraging opportunities, cover and shelter.	<ul style="list-style-type: none"> • MP = Alternative that has the highest ability to increase shoreline morphology via increasing irregularity • P = Alternative with second-highest ability • IP = Alternative with second-lowest ability • LP = Alternative with lowest or no ability 	Least Preferred	Preferred	Least Preferred	Least Preferred	Most Preferred	Preferred	Least Preferred	Preferred	Most Preferred
					No improvement to irregularity of the existing shoreline.	30% more irregular than the existing shoreline.	No change to irregularity of existing shoreline.	No change to irregularity of existing shoreline.	60% more irregular than the existing shoreline	40% more irregular than the existing shoreline.	No change to irregularity of the existing shoreline.	30% more irregular than existing shoreline.	50% more irregular than existing shoreline.

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		Ability to increase shoreline substrate type diversity	As supported by long-term monitoring data, more diverse open coast shorelines support increased species richness. Each Alternative results in an impact to shoreline substrate type composition. Increase the relative amounts of cobble and boulder substrate, in relation to sand, brings the shoreline closer to historical conditions. This increased diversity improves essential aquatic habitat and benefits local resident and migratory fish, including SAR Atlantic Salmon and American Eel, while providing optimal functional open coast habitat. In particular, increased shoreline substrate diversity provides more foraging, cover and shelter opportunities for fish.	<ul style="list-style-type: none"> MP = Alternative that has the highest ability to increase shoreline substrate type diversity P = Alternative with second-highest ability IP = Alternative with second-lowest ability LP = Alternative with lowest or no ability 	<p>Intermediate Preferred</p> <p>All three types of shoreline substrate present.</p> <p>Overall shoreline substrate type composition is:</p> <ul style="list-style-type: none"> 14% of the shoreline is cobble 21% of the shoreline is boulder 65% of the shoreline is sand 	<p>Most Preferred</p> <ul style="list-style-type: none"> 3-fold increase in cobble shoreline 2.5 fold increase in boulder shoreline Amount of sand shoreline is reduced by half <p>Overall shoreline substrate type composition is the most diverse, with the greatest increase in cobble and a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Intermediate Preferred</p> <p>No change in shoreline substrate types diversity.</p>	<p>Intermediate Preferred</p> <p>No change in shoreline substrate types diversity.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> No change in cobble and beach shoreline lengths 4-fold increase in boulder shoreline <p>Overall shoreline substrate type composition is the more diverse, with the greatest increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Virtually no change in sand and cobble shoreline 3-fold increase in boulder shoreline <p>Overall shoreline substrate type composition is more diverse with a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> No change to cobble shoreline 2.4-fold increase in boulder shoreline 50% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> No change to cobble or sand shoreline 2.3-fold increase in boulder shoreline <p>Overall shoreline substrate type composition is more diverse with a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	
		Potential for aquatic habitat loss or modification.	Alternatives differ in terms of their overall footprint, as indicated by their area of infill. Alternatives with the most infill have the potential to result in the highest amount of existing habitat lost or modified. As this does not consider the quality of habitat, and as the Alternatives' conceptual designs can be refined to minimize the footprint overall, this indicator considers the potential for habitat loss only, as compared to the other Alternatives. Alternatives with small amount of or no infill will be ranked higher.	<ul style="list-style-type: none"> MP = Alternative does not involve infill P = Alternative involves a small amount of infill IP = Alternative involves a medium to high amount of infill LP = Alternative that involves the highest amount of infill 	<p>Most Preferred</p> <p>Infill area = 0 m²</p>	<p>Least Preferred</p> <p>Infill area = ~40,000 m²</p>	<p>Preferred</p> <p>Minor infill area associated with scour protection, consisting of stones placed on the lake bottom and remaining below the waterline.</p>	<p>Preferred</p> <p>Minor infill area associated with scour protection, consisting of stones placed on the lake bottom and remaining below the waterline.</p>	<p>Intermediate Preferred</p> <p>Infill area = ~12,000 m²</p>	<p>Intermediate Preferred</p> <p>Infill area = ~9,000 m²</p> <p>Culverts will mean that the backwater area will not be accessible to most fish.</p>	<p>Least Preferred</p> <p>Infill area = ~49,000 m²</p>	<p>Least Preferred</p> <p>Infill area = ~109,000 m²</p>	

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	Extent of terrestrial habitat attributes enhanced or diminished			CRITERION-LEVEL RANKING	Preferred No improvement to land water interface. No impacts to vegetation communities of concern.	Preferred Positive changes to land water interface through a 15% increase in shoreline length that provides an interface that is always out of the water. Moderate temporary impacts to ~3,500 m ² of beach vegetation communities of concern.	Intermediate Preferred No improvement to land water interface. Low temporary impacts to ~400 m ² of beach vegetation communities of concern.	Intermediate Preferred No improvement to land water interface. Low temporary impacts to ~400 m ² beach vegetation communities of concern.	Intermediate Preferred No improvement to land water interface. Low temporary impacts to ~300 m ² beach vegetation communities of concern.	Intermediate Preferred No improvement to land water interface. Low temporary impacts to ~200 m ² beach vegetation communities of concern.	Least Preferred Negative change in land water interface through a 20% reduction in shoreline length that provides an interface that is always out of water. Greatest permanent negative impacts (i.e. loss) to ~2,300 m ² of beach vegetation communities of concern.	Most Preferred Greatest improvement to land water interface through a 30% increase in shoreline length that provides an interface that is always out of the water. Alternative provides potential for spread of existing sand dune communities (by enlarging existing sand beach).	Most Preferred Greatest improvement to land water interface through a 30% increase in shoreline length that provides an interface that is always out of water. Alternative provides potential for spread of existing sand dune communities (by enlarging existing sand beach).
	Potential to create appropriate land-water interface	Potential exists to create land-water interface that benefits terrestrial species. Where the interface provides ease of access for wildlife, and is always out of the water, the alternative is preferred.	<ul style="list-style-type: none"> • MP = Highest quality land water interface (highest ease of access and greatest length always out of water) • P = Intermediate quality land water interface • IP = Less quality land water interface • LP = Least quality land water interface 	Intermediate Preferred <ul style="list-style-type: none"> • ~63% of shoreline currently exists that provides a land-water interface that is always out of the water, through the existing Bluffer's Park sand beach. • ~15% of shoreline currently exists that is sometimes out of the water below Cudia Park. 	Preferred 15% increase in shoreline length that will provide a land-water interface that is always out of the water.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Least Preferred 20% reduction in shoreline length that will provide a land-water interface that is always out of the water.	Most Preferred 30% increase in shoreline length that will provide a land-water interface that is always out of the water.	Most Preferred 30% increase in shoreline length that will provide a land-water interface that is always out of the water.

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		Impact to vegetation communities of concern (note: vegetation communities are key criteria for designation of ESAs and ANSIs)	Different alternatives have varying impact on vegetation communities of concern. Vegetation communities provide habitat for both flora and faunal species.	<ul style="list-style-type: none"> MP = No negative impacts, potential for positive impacts on vegetation communities of conservation concern P = No negative impacts IP = Some negative impacts LP = Most negative impacts 	Preferred <ul style="list-style-type: none"> No anticipated impacts to vegetation communities of concern. No potential for enhancement. 	Intermediate Preferred <ul style="list-style-type: none"> ~3,500 m² of BBO1-1 anticipated being displaced. Potential for BBO1-1 recolonization on cobble beaches. 	Intermediate Preferred <ul style="list-style-type: none"> ~400 m² of BBO1-1 anticipated being displaced. Potential for BBO1-1 recolonization below bridge. 	Intermediate Preferred <ul style="list-style-type: none"> ~400 m² of BBO1-1 anticipated being displaced. Potential for BBO1-1 recolonization below bridge. 	Intermediate Preferred <ul style="list-style-type: none"> ~300 m² of BBO1-1 anticipated being displaced. Potential for BBO1-1 recolonization below bridge. 	Intermediate Preferred <ul style="list-style-type: none"> ~200 m² of BBO1-1 anticipated being lost. Potential for BBO1-1 recolonization below bridge. 	Least Preferred <ul style="list-style-type: none"> ~2300 m² of BBO1-1 anticipated being lost. Recolonization of BBO1-1 not anticipated. 	Most Preferred <ul style="list-style-type: none"> No anticipated negative impacts to vegetation communities of concern. Potential for sand dune expansion through expansion of beach. 	Most Preferred <ul style="list-style-type: none"> No anticipated negative impacts to vegetation communities of concern. Potential for sand dune expansion through expansion of beach.
OBJECTIVE #1 OBJECTIVE-LEVEL RANKING					INTERMEDIATE PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	PREFERRED	MOST PREFERRED
Manage public safety and property risk	Ability to minimize public safety risk and property loss as a result of slope erosion/failure			CRITERION-LEVEL RANKING	Least Preferred Cannot effectively minimize public safety risk.	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).
		Ability to provide a trail lakeward of risk line along the shoreline and shoreward of the risk line along the top of the bluff	Bluff erosion processes can result in slope failure (e.g., landslide). The improvement of existing trails and development of new trails along the toe/top of the slope could result in public safety risks as a result of the potential for slope failure. Alternatives that better accommodate this risk are more preferred.	<ul style="list-style-type: none"> MP = Provides the highest degree of safe formal public access P = Provides a relatively high degree of safe formal public access IP = Provides an intermediate degree of safe formal public access LP = Provides the lowest degree of safe formal public access 	Least Preferred No formal trail will be present between Bluffer's Park and Meadowcliffe, either along the toe or the top of the bluffs. Top of the bluffs at Cudia Park cannot be accessed safely under existing conditions. A narrow stretch of beach directly below the Cathedral Bluffs exists and is being accessed unsafely by the members of the public.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to substantially reduce the risks of slope failure or erosion hazards. Therefore, the formal trail will provide a high degree of public safety.

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	Improve Emergency Services access to the waterfront			CRITERION-LEVEL RANKING	Least Preferred Provides no access beyond east parking lot at Bluffer's Park.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.	Most Preferred Provides access along entire length of Segment.
		Ability to provide additional Emergency Services access along the waterfront.	Currently emergency services vehicles access to the shoreline is largely limited to Bluffer's Park along Brimley Road, to the shoreline between Meadowcliffe and Grey Abbey along the Guild construction route; and to the tablelands at East Point Park. Alternatives which provide opportunity for additional emergency services vehicle access along the entire shoreline Segments are more preferred.	<ul style="list-style-type: none"> MP = Allows for all vehicles to access entire Segment. P = Allows for some access to entire Segment IP = Allows for limited access LP = Does not allow access beyond existing extent of access 	Least Preferred EMS vehicle access to Bluffers Park is through Brimley Road. No access is provided beyond the east parking lot.	Most Preferred This Alternative would provide a headland beach connection between Bluffers Park and the Meadowcliffe section of shoreline. This would allow for EMS vehicles to access the entire West Segment.	Most Preferred The bridge would be designed to accommodate EMS vehicles (police and ambulance). This would allow for EMS vehicles to access the entire West Segment.	Most Preferred The bridge would be designed to accommodate EMS vehicles (police and ambulance). This would allow for EMS vehicles to access the entire West Segment.	Most Preferred The bridge would be designed to accommodate EMS vehicles (police and ambulance). This would allow for EMS vehicles to access the entire West Segment.	Most Preferred The bridge would be designed to accommodate EMS vehicles (police and ambulance). This would allow for EMS vehicles to access the entire West Segment.	Most Preferred The causeway would be designed to allow EMS vehicles and thus access would be provided along the entire Segment.	Most Preferred This Alternative requires a bridge to provide access outside of the Cudia Park bluff risk line. The bridge would be designed to accommodate EMS vehicles (police and ambulance). This would allow for EMS vehicles to access the entire West Segment.	Most Preferred This Alternative includes an expansion of the existing beach (wide) which would form a connection between Bluffers Park and the Meadowcliffe. This would allow for EMS vehicles to access the entire West Segment.
OBJECTIVE #2 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED
Provide an enjoyable waterfront experience	Improve public access to the waterfront			CRITERION-LEVEL RANKING	Least Preferred Does not provide continuous access along water's edge or space for a multi-use trail. AODA grade requirements cannot be met east of the existing beach. Provides a moderate amount of formal direct public access to the water along ~45% of the existing shoreline (Bluffer's Park Beach).	Most Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. The length of shoreline that provides formal direct access to the water is increased by 20%.	Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. No change to the length of shoreline that provides formal direct access to the water.	Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. No change to the length of shoreline that provides formal direct access to the water.	Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. No change to the length of shoreline that provides formal direct access to the water.	Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. No change to the length of shoreline that provides formal direct access to the water.	Intermediate Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. No change to the length of shoreline that provides formal direct access to the water.	Most Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. The length of shoreline that provides formal direct access to the water is increased by 40%.	Most Preferred Provides continuous access along the water's edge and space for a multi-use trail. AODA grade requirements can be met. The length of shoreline that provides formal direct access to the water is increased by 40%.

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		Potential to provide continuous formal public access along the shoreline	Various planning documents identify a trail along the water's edge as a long term objective. The project considers a trail along the shoreline that includes both top and toe of bluffs. Improved public access along the water's edge includes consideration for increased formal public access and continuous connections. Alternatives which are better able to provide continuous formal public access along the water's edge are preferred.	<ul style="list-style-type: none"> • MP = Provides for continuous formal public access along the entire Segment • P = Provides for continuous formal public access along a large portion of the Segment • IP = Provides for continuous formal public access along a small portion of the Segment • LP = Provides the least amount of continuous formal public access along the Segment 	Least Preferred Access between Bluffers Park and the Meadowcliffe section of the shoreline is not improved. Public access east of the Bluffer's Park Blue Flag beach is limited by lack of a safe, formal, connection along the water's edge.	Most Preferred A headland beach system would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A short-span bridge would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A long-span bridge would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A short-span island-bridge would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A long-span island-bridge would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A causeway would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the water's edge within the Segment.	Most Preferred A bridge would connect from the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the shoreline Segment.	Most Preferred A boardwalk along the expanded sand beach would connect the east end of Bluffers Park to the west end of Meadowcliffe, providing for continuous access along the shoreline Segment.
		Ability to accommodate a primary to high-capacity multi-use trail (width).	Within the Greater Toronto Area, the Waterfront Trail experiences significant demand, and user conflicts along shared paths have been reported. The provision of a primary to high-capacity multi-use trail is recognized as an opportunity to alleviate these pressures. While existing physical and environmental constraints may limit the ability to accommodate such a trail, Alternatives which provide the greatest opportunity for a primary or high-capacity multi-use trail outside the hazard line within the Segment are preferred.	<ul style="list-style-type: none"> • MP = Accommodates a multi-use trail that meets primary to high-capacity trail standard within the entire Segment. • P = Accommodates a multi-use trail, where only a small portion does not meet primary to high-capacity trail standard. • IP = Accommodates a multi-use trail, where a medium to large portion does not meet primary to high capacity trail standard. • LP = Accommodates a multi-use trail, where the largest portion does not meet primary to high-capacity trail standards; or does not accommodate a primary to high-capacity multi-use trail 	Least Preferred No opportunity to accommodate a primary multi-use trail, as no changes to existing conditions.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line along the headland beach system.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be accommodated outside the risk line.

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		Ability to meet AODA grade standard	Improved access along the shoreline include opportunities to provide physical AODA accessibility. Alternatives which are better able to accommodate a suitable grade are preferred.	<ul style="list-style-type: none"> • MP = Potential to meet AODA grade standard along full length • P = Potential to meet AODA grade standard along most of the length. • IP = AODA grade standard met along least of the length. • LP = AODA grade standard cannot be met. 	Least Preferred As there is no formal access beyond the eastern end of existing beach, AODA grade standard cannot be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.	Most Preferred AODA grade standard can be met.
		Ability to provide formal direct public access to the water	The existing sand beach at Bluffer's Park and sandy shoreline at East Point Park are valued by the public. Negative impacts and changes to the character of these shorelines are to be minimized, and Alternatives that achieve this and provide opportunities for enhancement will be considered preferred.	<ul style="list-style-type: none"> • MP = Provides formal direct access to the water over the greatest length. • P = Provides formal direct access to the water over second-greatest length. • IP = Provides formal direct access to the water over the second-shortest length. • LP = Does not provide for formal direct access to the water, or provides the least amount of direct access. 	Intermediate Preferred ~45% of the shoreline provides formal direct public access to the water through the existing Bluffer's Park sand beach.	Preferred 20% increase in length of shoreline that provides formal direct public access to the water.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Intermediate Preferred No change to existing conditions.	Least Preferred 30% reduction in length of shoreline that provides direct formal access to the water.	Most Preferred 40% increase in length of shoreline that provides direct formal access to the water.	Most Preferred 40% increase in length of shoreline that provides direct formal access to the water.
	Potential for changes to the use of the waterfront for recreation			CRITERION-LEVEL RANKING	Preferred No negative impact to character of existing sand beach or changes to existing conditions. Gradual reduction in sediment supply.	Preferred Greatest physical impact on existing beach with a ~40% reduction in sand beach length, but provides approximately ~500 m of new cobble shoreline. No change to alongshore sediment transport, but sediment supply	Intermediate Preferred Minor impact to existing beach with a ~1% reduction in sand beach length. Sediment supply will be reduced very gradually, with negligible change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Minor impact to existing beach with a ~1% reduction in sand beach length. Sediment supply will be reduced very gradually, with negligible change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Minor impact to existing beach with a ~5% reduction in sand beach length. Sediment supply will be reduced gradually, with little change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Minor impact to existing beach with a ~5% reduction in sand beach length. Sediment supply will be reduced gradually, with little change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Second greatest impact on existing beach with a ~30% reduction in sand beach length and potential for beach closures due to water quality changes. Sediment supply will be reduced gradually, with no change to	Most Preferred Provides greatest enhancement to existing sand beach with a ~40% increase in sand beach length. Sediment supply and alongshore sediment transport will be eliminated, thus improving navigation.	Most Preferred Provides greatest enhancement to existing sand beach with a ~40% increase in sand beach length. Sediment supply and alongshore sediment transport will be eliminated, thus improving navigation.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2A (SHORT SPAN BRIDGE)	ALTERNATIVE 2B (LONG SPAN BRIDGE)	ALTERNATIVE 3A (SHORT SPAN ISLAND-BRIDGE)	ALTERNATIVE 3B (LONG SPAN ISLAND-BRIDGE)	ALTERNATIVE 4 (CAUSEWAY)	ALTERNATIVE 5A (NARROW BEACH + BRIDGE)	ALTERNATIVE 5B (WIDE BEACH)
						will be eliminated, thus improving navigation.					alongshore sediment transport, resulting in minimal change to navigation.		
		Potential for change in character of sandy shorelines	The existing sand beaches at Bluffer's Park and East Point Park are valued by the public. Negative impacts and changes to these beaches are to be minimized, and Alternatives that achieve this and provide opportunities for enhancement will be considered preferred.	<ul style="list-style-type: none"> MP = No negative impact anticipated to the character of existing sand shoreline; and opportunities for enhancements P = No negative impact to character of existing sand shoreline IP = Minor negative impact to character of existing sand shoreline LP = Significant negative impact to character of existing sand shoreline 	<p>Preferred</p> <ul style="list-style-type: none"> No change to existing sand beach. No enhancement to beach. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> ~40% reduction in existing sand beach length. Addition of ~500 m of cobble beach. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Minor reduction (i.e. ~1%) in existing sand beach length. No enhancement to beach. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Minor reduction (i.e. ~1%) in existing sand beach length. No enhancement to beach. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Minor reduction (i.e. ~5%) in existing sand beach length. No enhancement to beach. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Minor reduction (i.e. approximately 5%) in existing sand beach length. No enhancement to beach. 	<p>Least Preferred</p> <ul style="list-style-type: none"> ~30% reduction in existing sand beach length. No enhancement to beach. 	<p>Most Preferred</p> <ul style="list-style-type: none"> ~40% increase in existing sand beach length. 	<p>Most Preferred</p> <ul style="list-style-type: none"> ~40% increase in existing sand beach length.
		Potential impacts to the Blue Flag Beach at Bluffer's Park	Water quality is one of many criteria considered in the designation of a Blue Flag Beach. Impacts and changes to the water quality at Bluffer's Park blue flag beach are to be avoided, and Alternatives that achieve this will be considered most preferred.	<ul style="list-style-type: none"> MP = No potential to increase the number of beach closures per season LP = Potential to increase the number of beach closures 	<p>Most Preferred</p> <p>No change to baseline condition.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Intermediate Preferred</p> <p>Some limited potential for negative impact to number of beach closures due to algae growth in the inner bay that would be created by the causeway which could affect water quality at the Bluffers park Blue Flag beach.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>	<p>Most Preferred</p> <p>No changes to existing conditions: no impact to beach closures as a result of changes to water quality.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2A (SHORT SPAN BRIDGE)	ALTERNATIVE 2B (LONG SPAN BRIDGE)	ALTERNATIVE 3A (SHORT SPAN ISLAND-BRIDGE)	ALTERNATIVE 3B (LONG SPAN ISLAND-BRIDGE)	ALTERNATIVE 4 (CAUSEWAY)	ALTERNATIVE 5A (NARROW BEACH + BRIDGE)	ALTERNATIVE 5B (WIDE BEACH)
		Potential for impact on navigation and boating infrastructure	Changes or modifications of sediment supply or sediment transport may impact navigational depths and /or dredging requirements of existing boating facilities at Bluffer's Park. Alternatives that minimize sediment supply will be preferred.	<ul style="list-style-type: none"> • MP = High Potential to reduce sedimentation and therefore dredging requirements in the entrance to Bluffer's Park boat basin • P = Medium potential to reduce sedimentation • IP = Low potential • LP = No potential 	Least Preferred Sediment supply will be reduced very gradually and will still contribute to sedimentation at Bluffers Park marina.	Most Preferred No change to alongshore sediment transport, but sediment supply will be eliminated.	Least Preferred Sediment supply will be reduced very gradually, with negligible change to alongshore sediment transport, resulting in minimal change to navigation.	Least Preferred Sediment supply will be reduced very gradually, with negligible change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Sediment supply will be reduced gradually, with little change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Sediment supply will be reduced gradually, with little change to alongshore sediment transport, resulting in minimal change to navigation.	Intermediate Preferred Sediment supply will be reduced gradually, with no change to alongshore sediment transport, resulting in minimal change to navigation.	Most Preferred Sediment supply and alongshore sediment transport will be eliminated, thus improving navigation.	Most Preferred Sediment supply and alongshore sediment transport will be eliminated, thus improving navigation.
OBJECTIVE #3 OBJECTIVE-LEVEL RANKING					INTERMEDIATE PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	MOST PREFERRED	MOST PREFERRED
Consistency and coordination with other initiatives	Ability to integrate with City and other agency plans and initiatives			CRITERION-LEVEL RANKING	Least Preferred Does not provide additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Least Preferred Does not provide additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.
		Consistency with the goals of the MNRF Fish Community Objectives for Lake Ontario	The MNRF Fish Community Objectives for Lake Ontario were created to maintain and increase target fish species in Lake Ontario. Alternatives which are able to advance these objectives are more preferred.	<ul style="list-style-type: none"> • MP = Provides additional contributions to advancement of applicable objectives • LP = Does not provide additional contributions to the advancement of applicable objectives 	Least Preferred Does not provide additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Least Preferred Does not provide additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.
OBJECTIVE #4 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	LEAST PREFERRED	MOST PREFERRED	MOST PREFERRED

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2A (SHORT SPAN BRIDGE)	ALTERNATIVE 2B (LONG SPAN BRIDGE)	ALTERNATIVE 3A (SHORT SPAN ISLAND-BRIDGE)	ALTERNATIVE 3B (LONG SPAN ISLAND-BRIDGE)	ALTERNATIVE 4 (CAUSEWAY)	ALTERNATIVE 5A (NARROW BEACH + BRIDGE)	ALTERNATIVE 5B (WIDE BEACH)
Achieve value for cost	Estimated capital cost			CRITERION-LEVEL RANKING	Most Preferred No construction costs. No crown lot acquisition.	Preferred Estimated to have higher cost than the Do Nothing but lower than Alternatives 2A, 2B, 3B, 5A and 5B. Moderate crown lot acquisition required.	Preferred Estimated to have intermediate-high cost. Lower than Alternatives 2B, 5A and 5B. Low crown lot acquisition required.	Intermediate Preferred Estimated to have the highest relative cost. Low crown lot acquisition required.	Preferred Estimated to have higher cost than the Do Nothing but lower than Alternatives 2A, 2B, 3B, 5A and 5B. Moderate crown lot acquisition required.	Intermediate Preferred Estimated to have intermediate-high cost. Lower than Alternatives 2B, 5A and 5B. Moderate crown lot acquisition required.	Preferred Estimated to have higher cost than the Do Nothing but lower than Alternatives 2A, 2B, 3B, 5A and 5B. Moderate crown lot acquisition required.	Least Preferred Estimated to have the highest relative costs. Moderate crown lot acquisition required.	Least Preferred Estimated to have the highest relative costs. Greatest amount of land acquisition required.
		Estimated cost to construct (relative to each other)	High level relative costs for the alternatives have been developed. Less expensive Alternatives will be scored higher.	<ul style="list-style-type: none"> MP = Lowest construction cost P = Low intermediate construction cost IP = High intermediate construction cost LP = Highest construction cost 	Most Preferred No new infrastructure provided. No construction costs	Preferred Construction costs are estimated to be higher than the do-nothing but lower than Alternatives 2B, 3B, 5A and 5B	Preferred Construction costs are estimated to be higher than the do-nothing but lower than Alternatives 2B, 3B, 5A and 5B	Least Preferred Estimated to have the highest relative construction cost.	Preferred Construction costs are estimated to be higher than the do-nothing but lower than Alternatives 2B, 3B, 5A and 5B	Intermediate Preferred Estimated to have the intermediate-high construction cost. Lower than Alternatives 2B, 5A and 5B.	Preferred Construction costs are estimated to be higher than the do-nothing but lower than Alternatives 2B, 3B, 5A and 5B	Least Preferred Estimated to have the highest relative construction cost.	Least Preferred Estimated to have the highest relative construction cost.
		Potential amount of waterlot and property acquisition required (relative to each other).	Some alternatives could require Crown waterlots (measured between the outmost extent of the Alternative and the shoreline), private property and/or easements across private property. Alternatives that minimize impacts to Crown waterlots and private property would be preferred.	<ul style="list-style-type: none"> MP = Will not require private property or Crown waterlots. P = Will require the least amount of private property parcels and/or Crown waterlots. IP = Will require a greater amount of private property parcels and/or Crown waterlots. LP = Will require the greatest amount of private property parcels and/or Crown waterlots. 	Most Preferred Will not require any Crown waterlots.	Intermediate Preferred ~6.8 ha of Crown waterlot would be required.	Preferred ~1.4 ha of Crown waterlot would be required.	Preferred ~1.4 ha of Crown waterlot would be required.	Intermediate Preferred ~6.3 ha of Crown waterlots would be required.	Intermediate Preferred ~6.3 ha of Crown waterlots would be required.	Intermediate Preferred ~6.4 ha of Crown waterlots would be required.	Intermediate Preferred ~4.9 ha of Crown waterlots would be required.	Least Preferred ~9.9 ha of Crown waterlots would be required.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2A (SHORT SPAN BRIDGE)	ALTERNATIVE 2B (LONG SPAN BRIDGE)	ALTERNATIVE 3A (SHORT SPAN ISLAND-BRIDGE)	ALTERNATIVE 3B (LONG SPAN ISLAND-BRIDGE)	ALTERNATIVE 4 (CAUSEWAY)	ALTERNATIVE 5A (NARROW BEACH + BRIDGE)	ALTERNATIVE 5B (WIDE BEACH)
	Maintenance and operations costs			CRITERION-LEVEL RANKING	Preferred No new infrastructure provided. Low maintenance cost relative to the other Alternatives for maintenance of existing structures.	Preferred Low maintenance requirements	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.).	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.).	Intermediate Preferred Expected to have high-intermediate maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Shorter length of bridge than Alternatives 2A/2B. Low maintenance requirement for islands.	Intermediate Preferred Expected to have high-intermediate maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Shorter length of bridge than Alternatives 2A/2B. Low maintenance requirement for islands.	Preferred Low maintenance requirements.	Intermediate Preferred While beach and new headlands maintenance requirements are relatively low, bridge component requirements are high. Combined, high relative maintenance costs.	Preferred Low maintenance requirements.
		Relative maintenance and operation costs of the shoreline and erosion works.	Alternatives that would be expected to have lower maintenance and operations cost would be preferred.	<ul style="list-style-type: none"> • MP = Lowest maintenance and operations costs • P = Low intermediate maintenance and operation cost • IP = High intermediate maintenance and operation costs • LP = Highest maintenance and operation costs 	Preferred No new infrastructure provided. Low maintenance cost relative to the other alternatives for maintenance of existing structures.	Preferred Low maintenance requirements.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.).	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.).	Intermediate Preferred Expected to have high-intermediate maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Shorter length of bridge than Alternatives 2A/2B. Low maintenance requirement for islands.	Intermediate Preferred Expected to have high-intermediate maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Shorter length of bridge than Alternatives 2A/2B. Low maintenance requirement for islands.	Preferred Low maintenance requirements.	Intermediate Preferred While beach and new headlands maintenance requirements are relatively low, bridge component requirements are high. Combined, high relative maintenance costs.	Preferred Low maintenance requirements
OBJECTIVE #5 OBJECTIVE-LEVEL RANKING					MOST PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	PREFERRED	LEAST PREFERRED	INTERMEDIATE PREFERRED
WEST SEGMENT ALTERNATIVES FINAL OVERALL RANKING					LEAST PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	PREFERRED	MOST PREFERRED

Scarborough Waterfront Project Detailed Evaluation of Alternatives Tables – Central Segment

Table 2 Detailed Evaluation of the Central Segment Alternatives. Alternatives are compared and ranked *relative to each other*. Ranking measures include: MP = Most Preferred, P = Preferred, IP = Intermediate Preferred, and LP = Least Preferred.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (REVETMENT)
Protect and enhance terrestrial and aquatic natural features and linkages	Extent of aquatic habitat enhanced or diminished			CRITERION-LEVEL RANKING	Least Preferred No fill, but no increase in morphology. No improvement in shoreline substrate type diversity.	Most Preferred High amount of fill (65,000 m ²). Highest increase in morphology through a 15% increase in shoreline irregularity. Greatest improvement in shoreline substrate type diversity through a moderate increase in cobble substrate.	Intermediate Preferred High amount of fill (42,000 m ²). Virtually no change to shoreline morphology, and no change to shoreline substrate type diversity.
		Ability to increase shoreline morphology by increasing shoreline irregularity	As supported by long-term monitoring data, open coast shorelines with more complex profiles result in increased species richness. Each Alternative results in an impact to shoreline morphology. Increasing the morphology via increasing irregularity improves essential aquatic habitat and benefits local resident and migratory fish (including SAR Atlantic Salmon and American Eel) while providing optimal functional open coast habitat. In particular, a complex shoreline profile provides for increased foraging opportunities, cover and shelter.	<ul style="list-style-type: none"> • MP = Alternative that has the highest ability to increase shoreline morphology via increasing irregularity • P = Alternative with second-highest ability • IP = Alternative with second-lowest ability • LP = Alternative with lowest or no ability 	Least Preferred No change to irregularity of the existing shoreline.	Most Preferred 15% more irregular than the existing shoreline	Intermediate Preferred Very minor increase (approximately 2%) in irregularity of shoreline.
		Ability to increase shoreline substrate type diversity	As supported by long-term monitoring data, more diverse open coast shorelines support increased species richness. Each Alternative results in an impact to shoreline substrate type composition. Increase the relative amounts of cobble and boulder substrate, in relation to sand, brings the shoreline closer to historical conditions. This increased diversity improves essential aquatic habitat and benefits local resident and migratory fish, including SAR Atlantic Salmon and American Eel, while providing optimal functional open coast habitat. In particular, increased shoreline substrate diversity provides more foraging, cover and shelter opportunities for fish.	<ul style="list-style-type: none"> • MP = Alternative that has the highest ability to increase shoreline substrate type diversity • P = Alternative with second-highest ability • IP = Alternative with second-lowest ability • LP = Alternative with lowest or no ability 	Least Preferred Two of three types of shoreline substrate present. Overall composition: 20% cobble, 80% boulder, 0% sand	Most Preferred <ul style="list-style-type: none"> • 1.5-fold increase in cobble shoreline • Virtually no change to boulder and sand shoreline Overall shoreline substrate type composition is more diverse with an increase in cobble proportions.	Least Preferred No change to shoreline substrate diversity or composition.

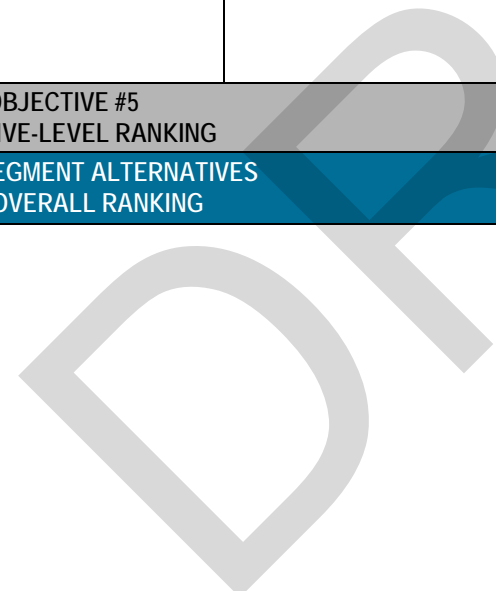
OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (RETVETMENT)
		Potential for aquatic habitat loss or modification	Alternatives differ in terms of their overall footprint, as indicated by their area of infill. Alternatives with the most infill have the potential to result in the highest amount of existing habitat lost or modified. As this does not consider the quality of habitat, and as the Alternatives' conceptual designs can be refined to minimize the footprint overall, this indicator considers the potential for habitat loss only, as compared to the other Alternatives. Alternatives with small amount of or no infill will be ranked higher.	<ul style="list-style-type: none"> • MP = Alternative does not involve infill • P = Alternative involves a small amount of infill • IP = Alternative involves a medium to high amount of infill • LP = Alternative that involves the highest amount of infill 	<p>Most Preferred</p> <p>Infill area = 0 m²</p>	<p>Least Preferred</p> <p>Infill area = ~65,000 m²</p>	<p>Intermediate Preferred</p> <p>Infill area = ~42,000 m²</p>
	Extent of terrestrial habitat attributes enhanced or diminished			CRITERION-LEVEL RANKING	<p>Intermediate Preferred</p> <p>No improvement to land water interface. No impacts to vegetation communities of concern.</p>	<p>Most Preferred</p> <p>Greatest positive change to land water interface through a 50% increase in shoreline length that provides an interface that is always out of water. No anticipated impacts to vegetation communities of concern.</p>	<p>Intermediate Preferred</p> <p>No improvement to land-water interface. No anticipated impacts to vegetation communities of concern.</p>
		Potential to create appropriate land-water interface	Potential exists to create land-water interface that benefits aquatic and terrestrial species. Where there the interface provides ease of access for wildlife and is always out of the water the alternative is preferred.	<ul style="list-style-type: none"> • MP = Highest quality land water interface (highest ease of access and greatest length always out of water) • P = Intermediate quality land water interface • IP = Less quality land water interface • LP = Least quality land water interface 	<p>Intermediate Preferred</p> <p>Approximately 20% of shoreline currently exists that provides a land-water interface that is always out of the water, between the existing headlands at Sylvan and Meadowcliffe.</p>	<p>Most Preferred</p> <p>50% increase in shoreline that will provide a land-water interface that is always out of the water.</p>	<p>Intermediate Preferred</p> <p>No change to existing conditions.</p>
		Impact to vegetation communities of concern (note: vegetation communities are key criteria for designation of ESAs and ANSIs)	Different alternatives may have varying levels of impact on vegetation communities of concern, including both positive and negative impacts. Alternatives that result in no negative impacts and have the potential for positive impacts to existing vegetation communities of conservation concern are more preferred.	<ul style="list-style-type: none"> • MP = No negative impacts, potential for positive impacts on vegetation communities of conservation concern • P = No negative impacts • IP = Some negative impacts • LP = Most negative impacts 	<p>Preferred</p> <p>No change to existing conditions.</p>	<p>Preferred</p> <p>No vegetation communities of concern are found where additional shoreline works are proposed, with the exception of a relatively small area along the Sylvan Ave shoreline occupied by a beach vegetation community of concern (BBT1-A – Mineral Treed Beach); however, no overall impacts anticipated as this community is expected to persist or return.</p>	<p>Preferred</p> <p>No vegetation communities of concern are found where additional shoreline works are proposed, with the exception of a relatively small area along the Sylvan Ave shoreline occupied by a beach vegetation community of concern (BBT1-A – Mineral Treed Beach); however, no overall impacts anticipated as this community is expected to persist or return.</p>
OBJECTIVE #1 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	INTERMEDIATE PREFERRED

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (REVETMENT)
Manage public safety and property risk	Ability to minimize public safety risk and property loss as a result of slope erosion/failure			CRITERION-LEVEL RANKING	Least Preferred Along the west end of Sylvan shoreline and along the Guild Park and Gardens shoreline, the access route is within the risk line.	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).	Most Preferred Effectively minimizes risk to public safety (trail outside of risk line).
		Ability to provide a trail lakeward of risk line along the shoreline and shoreward of the risk line along the top of the bluff	Bluff erosion processes can result in slope failure (e.g., land slide). The improvement of existing trails and development of new trails along the toe/top of the slope could result in public safety risks as a result of the potential for slope failure. Alternatives that better accommodate this risk are more preferred.	<ul style="list-style-type: none"> • MP = Provides the highest degree of safe formal public access • P = Provides a relatively high degree of safe formal public access • IP = Provides an intermediate degree of safe formal public access • LP = Provides the lowest degree of safe formal public access 	Least Preferred Portions of the construction access route along the west end of Sylvan and along the Guild Park and Gardens is within the risk line providing the least degree of safe public access.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to reduce the risks of slope failure or erosion hazards in all locations.	Most Preferred The formal trail can be positioned beyond the risk line, or be engineered in such a way to reduce the risks of slope failure or erosion hazards in all locations.
OBJECTIVE #2 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	MOST PREFERRED
Provide an enjoyable waterfront experience	Improve public access along the waterfront			CRITERION-LEVEL RANKING	Least Preferred Does not provide for continuous public access or primary to high-capacity multi-use trail along the shoreline, does not accommodate AODA grade access, and does not provide formal direct public access to the water.	Most Preferred Provides continuous formal public access along entire length of shoreline at the shoreline and allows for a primary to high-capacity multi-use trail. Offers potential to address AODA grade requirements. Also provides formal direct access to the water for the greatest length (approximately 1,700 m).	Preferred Provides continuous formal public access along entire length of shoreline and allows for a primary to high-capacity multi-use trail. Offers potential to address AODA grade requirements. Provides approximately 40% less shoreline for formal direct access to the water, relative to 1A (due to the revetment).
		Potential to provide continuous formal public access along the shoreline	Various planning documents identify a trail along the water's edge as a long term objective. The project considers a trail along the shoreline that includes both top and toe of bluffs. Improved public access along the water's edge includes consideration for increased formal public access and continuous connections. Alternatives which are better able to provide continuous formal public access along the water's edge are preferred.	<ul style="list-style-type: none"> • MP = Provides for continuous formal public access along the entire Segment • P = Provides for continuous formal public access along a large portion of the Segment • IP = Provides for continuous formal public access along a small portion of the Segment • LP = Provides the least amount of continuous formal public access along the Segment 	Least Preferred While the construction access route is informally used, formal public access is not available along the water's edge within the Segment.	Most Preferred This Alternative provides the opportunity to improve formal public access along the water's edge along the entire segment.	Most Preferred This Alternative provides the opportunity to improve formal public access along the water's edge along the entire segment.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (REVETMENT)
		Ability to accommodate a primary to high-capacity multi-use trail (width)	Within the Greater Toronto Area, the Waterfront Trail experiences significant demand, and user conflicts along shared paths have been reported. The provision of a primary to high-capacity multi-use trail is recognized as an opportunity to alleviate these pressures. While existing physical and environmental constraints may limit the ability to accommodate such a trail, Alternatives which provide the greatest opportunity for a primary or high-capacity multi-use trail outside the hazard line within the Segment are preferred.	<ul style="list-style-type: none"> • MP = Accommodates a multi-use trail that meets primary to high-capacity trail standard within the entire Segment • P = Accommodates a multi-use trail, where only a small portion does not meet primary to high-capacity trail standard • IP = Accommodates a multi-use trail, where a medium to large portion does not meet primary to high-capacity trail standard • LP = Accommodates a multi-use trail, where the largest portion does not meet primary to high-capacity trail standards; or does not accommodate a primary to high-capacity multi-use trail 	Least Preferred Does not provide a new primary to high-capacity multi-use trail along the water's edge outside the risk line.	Most Preferred A primary to high-capacity multi-use trail can be provided along the water's edge outside the risk line throughout this Segment that will fully meet primary to high-capacity multi-use trail standards.	Most Preferred A primary to high-capacity multi-use trail can be provided along the water's edge outside the risk line throughout this Segment that will fully meet primary to high-capacity multi-use trail standards.
		Ability to meet AODA grade standard	Improved access along the shoreline includes opportunities to provide physical AODA accessibility. Alternatives which are better able to accommodate a suitable grade are preferred.	<ul style="list-style-type: none"> • MP = Potential to meet AODA grade standard along full length • P = Potential to meet AODA grade standard along most of the length • IP = AODA grade standard met along least of the length • LP = AODA grade standard cannot be met 	Least Preferred AODA grade standards cannot be met as there will no change in existing condition.	Preferred Alternative 1 has the potential to meet AODA grade standard along most of the length.	Preferred Alternative 2 has the potential to meet AODA grade standard along most of the length.
		Ability to provide formal direct public access to the water	The existing sand beach at Bluffer's Park and sandy shoreline at East Point Park are valued by the public. Negative impacts and changes to the character of these shorelines are to be minimized, and Alternatives that achieve this and provide opportunities for enhancement will be considered preferred.	<ul style="list-style-type: none"> • MP = Provides formal direct access to the water over the greatest length • P = Provides formal direct access to the water over second-greatest length • IP = Provides formal direct access to the water over the second-shortest length • LP = Does not provide for formal direct access to the water, or provides the least amount of direct access 	Least Preferred No formal trail access through this section.	Most Preferred Provides the greatest length of shoreline that will provide direct formal public access to the water (approximately 1,700 m).	Preferred Provides approximately 60% the length of shoreline that will provide direct formal public access to the water, relative to Alternative 1.
OBJECTIVE #3 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	PREFERRED
Consistency and coordination with other initiatives	Ability to integrate with City and other agency plans and initiatives			CRITERION-LEVEL RANKING	Least Preferred Does not provide additional contributions to the advancement of any applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (REVETMENT)
		Consistency with the goals of the MNRF Fish Community Objectives for Lake Ontario	The MNRF Fish Community Objectives for Lake Ontario were created to maintain and increase target fish species in Lake Ontario. Alternatives which are better able to advance these objectives are more preferred.	<ul style="list-style-type: none"> • MP = Provides additional contributions to advancement of applicable objectives • LP = Does not provide additional contributions to the advancement of applicable objectives 	Least Preferred Does not provide additional contributions to the advancement of any applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.
	Potential impact on archaeological resources, built heritage resources, and cultural heritage landscapes			CRITERION-LEVEL RANKING	Most Preferred No impact to any known or potential archaeological resources.	Preferred The marine archaeological assessment identified three targets in proximity to the new proposed shoreline structures that could potentially be impacted; however, mitigation is possible.	Preferred The marine archaeological assessment identified three targets in proximity to the new proposed shoreline structures that could potentially be impacted, however, mitigation is possible.
	Potential to impact known or potential archaeological sites		Impacts to archaeological resources (terrestrial and/or marine) need to be minimized or mitigated. Alternatives that best achieve this will be considered as preferred.	<ul style="list-style-type: none"> • MP = Will not impact any known or potential archaeological resources • P = Has potential to impact archaeological resources but mitigation would be possible • IP = Low potential to impact archaeological resources, mitigation possible • LP = Will impact archaeological resources and cannot be effectively mitigated 	Most Preferred No impact to any known or potential archaeological resources.	Preferred The marine archaeological assessment identified three targets in proximity to the new proposed shoreline structures that could potentially be impacted; however, mitigation is possible.	Preferred The marine archaeological assessment identified three targets in proximity to the new proposed shoreline structures that could potentially be impacted; however, mitigation is possible.
OBJECTIVE #4 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	MOST PREFERRED	MOST PREFERRED
Achieve value for cost	Estimated capital cost			CRITERION-LEVEL RANKING	Most Preferred No construction or property acquisition costs	Least Preferred Highest relative costs. Greater amount of Crown water lots than Alternative 2.	Intermediate Preferred Lower cost than Alternative 1. Lesser amount of Crown water lots than Alternative 1.
		Estimated cost to construct (relative to each other)	Some Alternatives could require Crown waterlots (measured between the outmost extent of the Alternative and the shoreline), private property and/or easements across private property. Alternatives that minimize impacts to Crown waterlots and private property are Preferred.	<ul style="list-style-type: none"> • MP = Lowest construction cost • P = Low intermediate construction cost • IP = High intermediate construction cost • LP = Highest construction cost 	Most Preferred No construction cost.	Least Preferred Highest relative construction costs.	Intermediate Preferred Construction costs are lower than Alternative 1.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITION	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1 (HEADLAND BEACH)	ALTERNATIVE 2 (REVETMENT)
		Potential amount of waterlot and property acquisition required (relative to each other).	Some alternatives could require Crown waterlots (measured between the outmost extent of the Alternative and the shoreline), private property and/or easements across private property. Alternatives that minimize impacts to Crown waterlots and private property would be preferred.	<ul style="list-style-type: none"> • MP = Will not require private property or Crown waterlots • P = Will require the least amount of private property parcels and/or Crown waterlots • IP = Will require a greater amount of private property parcels and/or Crown waterlots • LP = Will require the greatest amount of private property parcels and/or Crown waterlots 	Most Preferred Will not require any private property or Crown waterlots.	Least Preferred Will not require any private property. Approximately 12.2 ha of Crown waterlots will be required.	Intermediate Preferred Will not require any private property. Approximate 11.9 ha of Crown waterlots will be required.
	Maintenance and operations costs			CRITERION-LEVEL RANKING	Intermediate Preferred On-going maintenance of existing concrete rubble shore will be required (existing shoreline works at Guild Parks and Gardens in need of repair).	Preferred Low maintenance requirements.	Most Preferred Least maintenance requirements.
		Relative maintenance and operation costs of the shoreline and erosion works.	Alternatives that would be expected to have lower maintenance and operations cost would be preferred.	<ul style="list-style-type: none"> • MP = Lowest maintenance and operations costs • P = Low intermediate maintenance and operation cost • IP = High intermediate maintenance and operation costs • LP = Highest maintenance and operation costs 	Intermediate Preferred On-going maintenance of existing concrete rubble shore will be required (existing shoreline works at Guild Parks and Gardens in need of repair).	Preferred Low maintenance requirements.	Most Preferred Least maintenance requirements.
OBJECTIVE #5 OBJECTIVE-LEVEL RANKING					MOST PREFERRED	INTERMEDIATE PREFERRED	PREFERRED
CENTRAL SEGMENT ALTERNATIVES FINAL OVERALL RANKING					INTERMEDIATE PREFERRED	MOST PREFERRED	PREFERRED



Scarborough Waterfront Project Detailed Evaluation of Alternatives Tables – East Segment

Table 3 Detailed Evaluation of the East Segment Alternatives. Alternatives are compared and ranked *relative to each other*. Ranking measures include: MP = Most Preferred, P = Preferred, IP = Intermediate Preferred, and LP = Least Preferred.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
Protect and enhance terrestrial and aquatic natural features and linkages	Extent of aquatic habitat enhanced or diminished			CRITERION-LEVEL RANKING	Intermediate Preferred No fill, but no improvements to morphology or substrate type diversity.	Intermediate Preferred Medium amount of fill (48,000 m ²). Increase in morphology through a 20% increase in shoreline irregularity. Some improvement in shoreline substrate type diversity with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.	Intermediate Preferred Highest amount of fill (94,000 m ²). Increase in morphology through a 20% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity with moderate increases in cobble proportions. However, high increases in boulder proportions result in a high reduction in sand proportions.	Intermediate Preferred Low-medium amount of fill (26,000 m ²). Minor increase in morphology through a 10% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.	Least Preferred High amount of fill (71,000 m ²). Minor increase in morphology through a 10% increase in shoreline irregularity. Some improvement to shoreline substrate type diversity through moderate increases in cobble proportions. However, high increases in boulder proportions result in a high reduction in sand proportions.	Intermediate Preferred Medium amount of fill (48,000 m ²). Increase in morphology through a 20% increase in shoreline irregularity. Some improvement in shoreline substrate type diversity with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.	Intermediate Preferred Highest amount of fill (94,000 m ²). Increase in morphology through a 20% increase in shoreline irregularity. Some improvement in shoreline substrate type diversity through moderate increases in cobble proportions. However, high increases in boulder proportions result in a high reduction in sand proportions.	Preferred High amount of fill (59,000 m ²). Increase in morphology through a 20% increase in shoreline irregularity. Improvement in shoreline substrate type diversity with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.	Most Preferred High amount of fill (86,000 m ²). Greatest increase in morphology through a 30% increase in shoreline irregularity. Greatest improvement in shoreline substrate type diversity through high increases in cobble proportions, and moderate increases in boulder proportions, relative to the existing sand-dominated substrate.	Intermediate Preferred No fill, but no improvements to morphology Or substrate type diversity.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Ability to increase shoreline morphology by increasing irregularity	As supported by long-term monitoring data, open coast shorelines with more complex profiles result in increased species richness. Each Alternative results in an impact to shoreline morphology. Increasing the morphology via increasing irregularity improves essential aquatic habitat and benefits local resident and migratory fish (including SAR Atlantic Salmon and American Eel) while providing optimal functional open coast habitat. In particular, a complex shoreline profile provides for increased foraging opportunities, cover and shelter.	<ul style="list-style-type: none"> • MP = Alternative that has the highest ability to increase shoreline morphology via increasing irregularity • P = Alternative with second-highest ability • IP = Alternative with second-lowest ability • LP = Alternative with lowest or no ability 	Least Preferred No change to irregularity of the existing shoreline.	Preferred 20% more irregular than the existing shoreline.	Preferred 20% more irregular than the existing shoreline.	Intermediate Preferred 10% more irregular than the existing shoreline.	Intermediate Preferred 10% more irregular than the existing shoreline.	Preferred 20% more irregular than the existing shoreline.	Preferred 20% more irregular than the existing shoreline.	Preferred 20% more irregular than the existing shoreline.	Most Preferred 30% more irregular than the existing shoreline.	Least Preferred Same as Do Nothing (no change to existing conditions).

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Ability to increase shoreline substrate type diversity	As supported by long-term monitoring data, more diverse open coast shorelines support increased species richness. Each Alternative results in an impact to shoreline substrate type composition. Increase the relative amounts of cobble and boulder substrate, in relation to sand, brings the shoreline closer to historical conditions. This increased diversity improves essential aquatic habitat and benefits local resident and migratory fish, including SAR Atlantic Salmon and American Eel, while providing optimal functional open coast habitat. In particular,	<ul style="list-style-type: none"> MP = Alternative that has the highest ability to increase shoreline substrate type diversity P = Alternative with second-highest ability IP = Alternative with second-lowest ability LP = Alternative with lowest or no ability 	<p>Least Preferred</p> <p>Two of three types of shoreline substrate present.</p> <p>Overall composition is:</p> <ul style="list-style-type: none"> 0% of the shoreline is cobble 7% of the shoreline is boulder 93% of the shoreline is sand 	<p>Preferred</p> <ul style="list-style-type: none"> Provides approximately half the cobble shoreline length of Alternative 4B. 4.2 fold increase in boulder shoreline 30% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Least Preferred</p> <ul style="list-style-type: none"> Provides approximately half the cobble shoreline length of Alternative 4B. 10.8 fold increase in boulder shoreline 70% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and high increases in boulder proportions; however, this Alternative results in high reductions in sand proportions.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 30% of the cobble shoreline length of Alternative 4B. 3.5 fold increase in boulder shoreline 20% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Least Preferred</p> <ul style="list-style-type: none"> Provides approximately 30% of the cobble shoreline length of Alternative 4B. 10.1 fold increase in boulder shoreline 60% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and high increases in boulder proportions; however, this Alternative results in high reductions in sand proportions.</p>	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 40% of the cobble shoreline length of Alternative 4B. 4.8 fold increase in boulder shoreline 20% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Least Preferred</p> <ul style="list-style-type: none"> Provides approximately 40% of the cobble shoreline length of Alternative 4B. 11.4 fold increase in boulder shoreline 70% reduction in sand shoreline <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and high increases in boulder proportions; however, this Alternative results in high reductions in sand proportions.</p>	<p>Preferred</p> <ul style="list-style-type: none"> Provides approximately half the cobble shoreline length of Alternative 4B. 6.7 fold increase in boulder shoreline Amount of sand shoreline is reduced by half <p>Overall shoreline substrate type composition is more diverse with moderate increases in cobble and boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Most Preferred</p> <ul style="list-style-type: none"> Provides the greatest increase in cobble shoreline length (approximately 1400 m) 6.6 fold increase in boulder shoreline Amount of sand shoreline is reduced by half <p>Overall shoreline substrate composition is the most diverse with the greatest increase in cobble and a moderate increase in boulder proportions, relative to the previously existing sand-dominated substrate.</p>	<p>Least Preferred</p> <p>No change to existing conditions.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
			increased shoreline substrate diversity provides more foraging, cover and shelter opportunities for fish.											
		Potential for aquatic habitat loss or modification	Alternatives differ in terms of their overall footprint, as indicated by their area of infill. Alternatives with the most infill have the potential to result in the highest amount of existing habitat lost or modified. As this does not consider the quality of habitat, and as the Alternatives' conceptual designs can be refined to minimize the footprint overall, this indicator considers the potential for habitat loss only, as compared to the other Alternatives. Alternatives with small amount of or no infill will be ranked higher.	<ul style="list-style-type: none"> • MP = Alternative does not involve infill • P = Alternative involves a small amount of infill • IP = Alternative involves a medium to high amount of infill • LP = Alternative that involves the highest amount of infill 	Most Preferred Infill area = 0 m ² .	Intermediate Preferred Infill area = 48,000 m ²	Least Preferred Infill area = 94,000 m ²	Intermediate Preferred Infill area = 26,000 m ²	Least Preferred Infill area = 71,000 m ²	Intermediate Preferred Infill area = 48,000 m ²	Least Preferred Infill area = 94,000 m ²	Intermediate Preferred Infill area = 59,000 m ²	Least Preferred Infill area = 86,000 m ²	Most Preferred Infill area = 0 m ²

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
	Extent of terrestrial habitat attributes enhanced or diminished			CRITERION-LEVEL RANKING	<p>Intermediate Preferred</p> <p>No improvement to land water interface (100% of the shoreline provides a land water interface that is sometimes out of the water). No additional impacts to vegetation communities of concern beyond existing conditions (trampling through informal trail use).</p>	<p>Intermediate Preferred</p> <p>Overall gain to land water interface through the addition of shoreline that is always out of the water (approximately half that provided by Alternative 4B). Land-water interface that is sometimes out of water is reduced by ~30%. Moderate impact to ~1,300 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Least Preferred</p> <p>Overall loss to land water interface through a reduction in shoreline length that provides an interface that is sometimes out of water by ~80%. Addition of land water interface that is always out of water is equivalent to 1A. High degree of impact to ~18,800 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Intermediate Preferred</p> <p>Overall gain to land water interface through the addition of shoreline that is always out of the water (approximately 30% of what is provided by Alternative 4B). Land-water interface that is sometimes out of water is reduced by ~20%. Moderate impact to ~1,300 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Least Preferred</p> <p>Overall loss to land water interface through a reduction in shoreline length that provides an interface that is sometimes out of water by ~60%. Addition of land water interface that is always out of water is equivalent to 2A. High degree of impact to ~18,800 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Intermediate Preferred</p> <p>Overall gain to land water interface through the addition of shoreline that is always out of the water (approximately 40% of what is provided by Alternative 4B). Land-water interface that is sometimes out of water is reduced by ~20%. Moderate impact to ~1,300 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Least Preferred</p> <p>Overall loss to land water interface through a reduction in shoreline length that provides an interface that is sometimes out of water by ~60%. Addition of land water interface that is always out of water is equivalent to 3A. High degree of impact to ~18,800 m² of vegetation communities of concern. However, there is potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Intermediate Preferred</p> <p>Overall gain to land water interface through the addition of shoreline that is always out of the water (approximately half that provided by Alternative 4B). Land-water interface that is sometimes out of water is reduced by ~50%. High degree of impact to 11,100 m² of vegetation communities of concern. However, there is also the potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Preferred</p> <p>Greatest gain to land water interface with the addition of approximately 1,400 m of shoreline that provides an interface that is always out of the water. Land-water interface that is sometimes out of water is reduced by ~50%. Moderate impacts to ~5,300 m² of vegetation communities of concern. However, there is also the potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>	<p>Least Preferred</p> <p>No improvement to land water interface. Bridge construction would require vegetation clearing on both sides of Grey Abbey Ravine, and potentially down within the ravine. Significant impacts to three bluff vegetation communities of concern (BLO1, BLS1-A and BLT1-B) are anticipated. However, there is the potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Potential to create appropriate land-water interface.	Potential exists to create land-water interface that benefits terrestrial species. Where the interface provides ease of access for wildlife and is always out of the water the alternative is preferred.	<ul style="list-style-type: none"> MP = Highest quality land water interface (highest ease of access and greatest length always out of water) P = Intermediate quality land water interface IP = Less quality land water interface LP = Least quality land water interface	Intermediate Preferred 100% of shoreline currently exists that provides a land-water interface that is sometimes out of water, through the existing sandy shoreline.	Preferred <ul style="list-style-type: none"> Provides approximately half the land-water interface that is always out of water, relative to Alternative 4B. 30% reduction in land-water interface that is sometimes out of water. 	Least Preferred <ul style="list-style-type: none"> Provides approximately half the land-water interface that is always out of water, relative to Alternative 4B. 80% reduction in land-water interface that is sometimes out of water. 	Preferred <ul style="list-style-type: none"> Provides approximately 30% of the land-water interface that is always out of water, relative to Alternative 4B. 20% reduction in land-water interface that is sometimes out of water. 	Least Preferred <ul style="list-style-type: none"> Provides approximately 30% of the land-water interface that is always out of water, relative to Alternative 4B. 60% reduction in land-water interface that is sometimes out of water. 	Preferred <ul style="list-style-type: none"> Provides approximately 40% of the land-water interface that is always out of water, relative to Alternative 4B. -20% reduction in land-water interface that is sometimes out of water. 	Least Preferred <ul style="list-style-type: none"> Provides approximately 40% of the land-water interface that is always out of water, relative to Alternative 4B. 60% reduction in land-water interface that is sometimes out of water. 	Intermediate Preferred <ul style="list-style-type: none"> Provides approximately half the land-water interface that is always out of water, relative to Alternative 4B. 50% reduction in land-water interface that is sometimes out of water. 	Most Preferred <ul style="list-style-type: none"> Provides the greatest increase in shoreline that will provide a land-water interface that is always out of the water (approximately 1400 m). 50% reduction in land-water interface that is sometimes out of water. 	Intermediate Preferred <ul style="list-style-type: none"> No change to existing conditions.
		Impact to vegetation communities of concern (note: vegetation communities are key criteria for designation of ESAs and ANSIs)	Different alternatives have varying impact on vegetation communities of concern. Vegetation communities provide habitat for both flora and faunal species	<ul style="list-style-type: none"> MP = No negative impacts, potential for positive impacts on vegetation communities of conservation concern P = No negative impacts IP = Some negative impacts LP = Most negative impacts 	Intermediate Preferred No additional impacts to vegetation communities of concern, beyond existing conditions (trampling through informal trail use).	Intermediate Preferred <ul style="list-style-type: none"> Approximately 200 m² of BBO1 anticipated to be lost due to headland-beach system. Approximately 900 m² of BLS1-A and 200 m² of BLO1 anticipated to be lost due to staircase construction. No anticipated impacts to BBO1-1 and BBS1-2A as they have been shown to recolonize on cobble. 	Least Preferred <ul style="list-style-type: none"> Approximately 1500 m² of BBO1, 3300 m² of BBS1-2A and 14000m² of BBO1-1 anticipated to be lost. No anticipated loss of BLO1 or BLS1-A. Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 	Intermediate Preferred <ul style="list-style-type: none"> Approximately 200 m² of BBO1 anticipated to be lost. Approximately 900 m² of BLS1-A and 200 m² of BLO1 anticipated to be lost due to staircase construction. No anticipated impacts to BBO1-1 and BBS1-2A as they have been shown to recolonize on cobble. Has potential to reduce impacts on vegetation 	Least Preferred <ul style="list-style-type: none"> Approximately 1500 m² of BBO1, 3300 m² of BBS1-2A and 14000 m² of BBO1-1 anticipated to be lost. No anticipated loss of BLO1 or BLS1-A. Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 	Intermediate Preferred <ul style="list-style-type: none"> Approximately 200 m² of BBO1 anticipated to be lost. Approximately 900 m² of BLS1-A and 200 m² of BLO1 anticipated to be lost due to staircase construction. No anticipated impacts to BBO1-1 and BBS1-2A as they have been shown to recolonize on cobble. Has potential to reduce 	Least Preferred <ul style="list-style-type: none"> Approximately 1500 m² of BBO1, 3300 m² of BBS1-2A and 14000 m² of BBO1-1 anticipated to be lost. No anticipated loss of BLO1 or BLS1-A. Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 	Intermediate Preferred <ul style="list-style-type: none"> Approximately 1500 m² of BBO1, 1300 m² of BBS1-2A, and 4500 m² of BBO1-1 anticipated to be lost. Approximately 1600 m² of BLS1-B and 1300 m² of BLO1 anticipated to be lost for switchback trail construction. Approximately 900 m² of CUT1-G anticipated to be lost for switchback trail construction. 	Intermediate Preferred <ul style="list-style-type: none"> Approximately 1500 m² of BBO1 anticipated to be lost. Approximately 1600 m² of BLS1-B and 1300 m² of BLO1 anticipated to be lost for switchback trail construction. Approximately 900 m² of CUT1-G anticipated to be lost for switchback trail construction. No anticipated impacts to BBO1-1 and 	Least Preferred <ul style="list-style-type: none"> Bridge construction would require vegetation clearing on both sides of Grey Abbey Ravine, and potentially down within the ravine. Significant impacts to three bluff vegetation communities of concern (BLO1, BLS1-A and BLT1-B) are anticipated. Has potential to reduce impacts on vegetation

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						<ul style="list-style-type: none"> Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 		communities of concern by redirecting public access along formal trails.		impacts on vegetation communities of concern by redirecting public access along formal trails.		<ul style="list-style-type: none"> Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 	BBS1-2A as they have been shown to recolonize on cobble. <ul style="list-style-type: none"> Has potential to reduce impacts on vegetation communities of concern by redirecting public access along formal trails. 	communities of concern by redirecting public access along formal trails.
	Potential for impact on Species at Risk			CRITERION-LEVEL RANKING	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	

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		Potential effects to habitat for Bank Swallow	Potential terrestrial SAR present in the Study Area include Bank Swallows. Alternatives that benefit SAR and minimize negative impacts will be preferred	<ul style="list-style-type: none"> • MP = Least or no impacts on SAR • P = Intermediate degree impacts on SAR • IP = More amount/degree impacts on SAR • LP = Most amount and highest degree of impacts on SAR 	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face. Human disturbance due to low bluff height is also increased.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face. Human disturbance due to low bluff height is also increased.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Least Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> Potential reduction in lesser quality Bank Swallow habitat availability, as protection works will halt toe erosion and encourage increased vegetation along the primarily bare bluff face. Human disturbance due to low bluff height is also increased.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	<p>Most Preferred</p> <p><u>Between Grey Abbey and west of East Point Park:</u> No direct impacts to Bank Swallow habitat, as the nests are currently restricted to the upper portion (due to existing vegetation) that is expected to continue eroding into the future.</p> <p><u>Around East Point Park:</u> No direct impacts to Bank Swallow habitat, as no shoreline works are proposed. Top-of-bluff connection limits human disturbance.</p>	
OBJECTIVE #1 OBJECTIVE-LEVEL RANKING					INTERMEDIATE PREFERRED	PREFERRED	LEAST PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	PREFERRED	MOST PREFERRED	INTERMEDIATE PREFERRED

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Manage public safety and property risk	Ability to minimize public safety risk and property loss as a result of slope erosion/failure			CRITERION-LEVEL RANKING	Least Preferred	Preferred	Most Preferred	Preferred	Most Preferred	Preferred	Most Preferred	Most Preferred	Most Preferred	Intermediate Preferred	
		Cannot effectively minimize public safety risk or property loss. Greyabbey Trail (e.g., road and associated infrastructure) would be at risk from erosion within the planning timeframe of the Project (approximately 60 years).	Effectively minimizes risk to public safety (trail outside of risk line) but will have greater degree of property loss though the loss will occur over the long term. Risk of erosion to Greyabbey Trail is mitigated.		Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) but will have greater degree of property loss though the loss will occur over the long term. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) but will have greater degree of property loss though the loss will occur over the long term. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) and will have limited loss of property. Risk of erosion to Greyabbey Trail is mitigated.	Effectively minimizes risk to public safety (trail outside of risk line) but will have the greatest degree of property loss though the loss will occur over the long term. Greyabbey Trail (e.g., road and associated infrastructure) would be at risk from erosion within the planning timeframe of the Project (approximately 60 years).
		Ability to provide a trail lakeward of risk line along the shoreline and shoreward of the risk line along the top of the bluff.	Bluff erosion processes can result in slope failure (e.g., land slide). The improvement of existing trails and development of new trails along the toe/top of the slope could result in public safety risks as a result of the potential for slope failure. Alternatives that better accommodate this risk are more preferred.	<ul style="list-style-type: none"> • MP = Provides the highest degree of safe formal public access • P = Provides a relatively high degree of safe formal public access • IP = Provides an intermediate degree of safe formal public access • LP = Provides the lowest degree of safe formal public access 	Least Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred	Most Preferred
					Access along the existing beach area is within the risk line. Trail to connect Grey Abbey Park with Copperfield Road is along the edge of the Grey Abbey ravine and is subject to erosion.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	A safe formal trail system can be provided through this segment.	

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		Ability to address the potential loss of public property and infrastructure as a result of slope erosion/ failure (slope crest migration).	Bluff erosion processes can result in slope failure (e.g., land slide), including loss of tableland and erosion of the bluff face. There are varying levels for risk for slope failure within the Study Area which can impact public property and infrastructure.	<ul style="list-style-type: none"> MP = Alternative eliminates risk to public property and infrastructure P = Alternative is associated with risk to public property only IP = Alternative is associated with risk to open space and public recreational amenities LP = Alternative is associated with risk to public property and infrastructure 	<p>Least Preferred</p> <ul style="list-style-type: none"> Does not address the risk at the west end of Grey Abbey Park. Greyabbey Trail (e.g., road and associated infrastructure) would be at risk from erosion within the planning timeframe of the Project (approximately 60 years). Does not address the risk to critical public infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Does not address the risk to critical public infrastructure. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Addresses the risk to critical public infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Does not address the risk to critical public infrastructure. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Addresses the risk to critical public infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Does not address the risk to critical public infrastructure. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Addresses the risk to critical public infrastructure. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Addresses the risk to critical public infrastructure. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Addresses the risk at the west end of Grey Abbey Park. Addresses the risk to critical public infrastructure. 	<p>Least Preferred</p> <ul style="list-style-type: none"> Does not address the risk at the west end of Grey Abbey Park. Greyabbey Trail (e.g., road and associated infrastructure) would be at risk from erosion within the planning timeframe of the Project (approximately 60 years). Does not address the risk to critical public infrastructure. 	
	Improve Emergency Services access to the waterfront			CRITERION-LEVEL RANKING	<p>Least Preferred</p> <p>Allows for only limited access for some vehicles.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>	<p>Most Preferred</p> <p>Provides access along entire length of Segment.</p>
		Ability to provide additional Emergency Services access along the waterfront	Currently emergency services vehicles access to the shoreline is largely limited to Bluffer's Park along Brimley Road, to the shoreline between Meadowcliffe and Grey Abbey along the Guild construction	<ul style="list-style-type: none"> MP = Allows for all vehicles to access entire Segment P = Allows for some access to entire Segment IP = Allows for limited access LP = Does not allow access beyond existing extent 	<p>Least Preferred</p> <p>No EMS vehicle access is possible between the east end of the Guild construction road and Grey Abbey Park, and between the end of Grey Abbey Park and East Point Park. The</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to the Grey Abbey ravine. Access along the rest of the segment would be provided</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to Beechgrove Road along the water's edge. Secondary access can be</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to the Grey Abbey ravine. Access along the rest of the segment would be provided</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to Beechgrove Road along the water's edge. Secondary access can be</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to the Grey Abbey ravine. Access along the rest of the segment would be provided</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to Beechgrove Road along the water's edge. Secondary access can be</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to the west side of East Point Park. Access along the rest of the segment would</p>	<p>Most Preferred</p> <p>This Alternative would provide emergency vehicle access from the east end of the Guild construction road to the west side of East Point Park. Access along the rest of the segment would</p>	<p>Most Preferred</p> <p>EMS access would be provided west from East Point Park to the Grey Abbey ravine along the tablelands. Access for the remainder of the segment would be from City streets.</p>	

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
			route; and to the tablelands at East Point Park. Alternatives which provide opportunity for additional emergency services vehicle access along the entire shoreline Segments are more preferred.	of access	closest access points are the Guild construction access road to the west, and parking lots at East Point Park and Beechgrove.	along the tablelands through a combination of existing and improved trails.	provided along existing tableland trails.	along the tablelands through a combination of existing and improved trails.	provided along existing tableland trails.	along the tablelands through a combination of existing and improved trails.	provided along existing tableland trails.	be provided along the tablelands through a combination of existing and improved trails.	be provided along the tablelands through a combination of existing and improved trails.	
OBJECTIVE #2 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	PREFERRED	MOST PREFERRED	PREFERRED	MOST PREFERRED	PREFERRED	MOST PREFERRED	MOST PREFERRED	MOST PREFERRED	INTERMEDIATE PREFERRED
Provide an enjoyable waterfront experience	Improve public access to the waterfront			CRITERION-LEVEL RANKING	Least Preferred Provides the least amount of continuous formal public access along the water's edge and accommodates the shortest portion of a primary to high-capacity multi-use trail. Also cannot accommodate AODA grade access and provides limited access to the water's edge (~50% of the existing shoreline is constrained by private property and critical infrastructure).	Intermediate Preferred Provides public access however requires a staircase (cyclists to dismount) thus AODA grade access provided east and west of staircase. Provides formal direct access to the shoreline (approximately half that provided by 4B); ~25% of the remaining shoreline remains inaccessible due to private property and critical infrastructure.	Preferred Provides continuous access along the shoreline, accommodates the primary to high-capacity multi-use trail width, and meets AODA grade requirements. Provides formal direct access to the water's edge (equivalent length to 1A); however, informal access is reduced by 80%, due to revetment, but previously inaccessible areas are now accessible.	Intermediate Preferred Provides public access however requires a staircase (cyclists to dismount) thus AODA grade access provided east and west of staircase. Provides formal direct access to the shoreline (approximately 30% of the length provided by 4B); ~35% of the remaining shoreline remains inaccessible due to private property and critical infrastructure.	Preferred Provides continuous access along the shoreline, accommodates the primary to high-capacity multi-use trail width, and meets AODA grade requirements. Provides formal direct access to the shoreline (equivalent length to 2A); however, informal access is reduced by 60% due to revetment and ~30% of the remaining shoreline remains inaccessible due to private property and critical infrastructure.	Intermediate Preferred Provides public access however requires a staircase (cyclists to dismount) thus AODA grade access provided east and west of staircase. Provides formal direct access to the shoreline (approximately 40% of the length provided by 4B); ~35% of the remaining shoreline remains inaccessible due to private property and critical infrastructure.	Preferred Provides continuous access along the shoreline, accommodates the multi-use trail width, and meets AODA grade requirements. Provides formal direct access to the shoreline (equivalent length to 3A); informal access is reduced by 60% due to revetment and ~30% of the remaining shoreline remains inaccessible due to private property and critical infrastructure.	Preferred Provides continuous access along the shoreline, accommodates the primary to high-capacity multi-use trail width, and meets AODA grade requirements. Provides formal direct access to shoreline (approximately half that provided by 4B); however, informal access is reduced by 50% due to revetment, but previously inaccessible areas are now accessible.	Most Preferred Provides continuous access along the shoreline, accommodates the primary to high-capacity multi-use trail width, and meets AODA grade requirements. Provides longest length of formal direct access to the shoreline is provided (approximately 1400 m); previously inaccessible areas are now accessible.	Preferred Provides continuous access along the shoreline, accommodates the primary to high-capacity multi-use trail width, and meets AODA grade requirements and provides limited access to the shoreline (no change to existing conditions).

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Potential to provide continuous formal public access along the shoreline	Various planning documents identify a trail along the water's edge as a long term objective. The project considers a trail along the shoreline that includes both top and toe of bluffs. Improved public access along the water's edge includes consideration for increased formal public access and continuous connections. Alternatives which are better able to provide continuous formal public access along the water's edge are preferred.	<ul style="list-style-type: none"> MP = Provides for continuous formal public access along the entire Segment P = Provides for continuous formal public access along a large portion of the Segment IP = Provides for continuous formal public access along a small portion of the Segment <p>LP = Provides the least amount of continuous formal public access along the Segment</p>	Least Preferred Formal public access is limited to the top of the bluffs at East Point Park only.	Preferred This Alternative provides continuous formal public access along the shoreline however the staircase at Grey abbey Ravine would require cyclists to dismount and carry their bikes and would limit access.	Most Preferred This Alternative provides continuous formal public access along the shoreline.	Preferred This Alternative provides continuous formal public access along the shoreline however the staircase at Grey Abbey Ravine would require cyclists to dismount and carry their bikes and would limit access.	Most Preferred This Alternative provides continuous formal public access along the shoreline.	Preferred This Alternative provides continuous formal public access along the shoreline however the staircase at Grey Abbey Ravine would require cyclists to dismount and carry their bikes and would limit access.	Most Preferred This Alternative provides continuous formal public access along the shoreline.	Most Preferred This Alternative provides continuous formal public access along the shoreline.	Most Preferred This Alternative provides continuous formal public access along the shoreline.	Most Preferred This Alternative provides continuous formal public access along the shoreline.
		Ability to accommodate a primary to high-capacity multi-use trail (width)	Within the Greater Toronto Area, the Waterfront Trail experiences significant demand, and user conflicts along shared paths have been reported. The provision of a primary to high-capacity multi-use trail is recognized as an opportunity to alleviate these pressures. While	<ul style="list-style-type: none"> MP = Accommodate s a multi-use trail that meets primary to high-capacity trail standard within the entire Segment P = Accommodate s a multi-use trail, where only a small portion does not meet primary to high-capacity 	Least Preferred Does not provide enough space outside of the risk line to accommodate a primary to high-capacity multi-use trail along the water's edge.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.	Most Preferred Alternative can accommodate the primary to high-capacity multi-use trail width requirement.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
			existing physical and environmental constraints may limit the ability to accommodate such a trail, Alternatives which provide the greatest opportunity for a primary or high-capacity multi-use trail outside the hazard line within the Segment are preferred.	<ul style="list-style-type: none"> • IP = Accommodate a multi-use trail, where a medium to large portion does not meet primary to high-capacity trail standard • LP = Accommodate a multi-use trail, where the largest portion does not meet primary to high-capacity trail standards; or does not accommodate a primary to high-capacity multi-use trail 										
		Ability to meet AODA grade standard	Improved access along the shoreline includes opportunities to provide physical AODA accessibility. Alternatives which are better able to accommodate a suitable grade are preferred.	<ul style="list-style-type: none"> • MP = Potential to meet AODA grade standard along full length • P = Potential to meet AODA grade standard along most of the length • IP = AODA grade standard met along least of the length • LP = AODA grade standard cannot be met 	Least Preferred AODA grade standard cannot be met.	Intermediate Preferred This Alternative requires a staircase structure to access the tablelands at Grey Abbey ravine and thus AODA grade standard can only be met for the top and the base of the bluffs portion of the Alternative.	Most Preferred This Alternative would meet AODA grade standards.	Intermediate Preferred This Alternative requires a staircase structure to access the tablelands at Grey Abbey ravine and thus AODA grade standard can only be met for the top and the base of the bluffs portion of the Alternative.	Most Preferred This Alternative would meet AODA grade standards.	Intermediate Preferred This Alternative requires a staircase structure to access the tablelands at Grey Abbey ravine and thus AODA grade standard can only be met for the top and the base of the bluffs portion of the Alternative.	Most Preferred This Alternative would meet AODA grade standards.	Most Preferred This Alternative would meet AODA grade standards.	Most Preferred This Alternative would meet AODA grade standards.	Most Preferred This Alternative would meet AODA grade standards.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Ability to provide formal direct public access to the water	The existing sand beach at Bluffer's Park and sandy shoreline at East Point Park are valued by the public. Negative impacts and changes to the character of these shorelines are to be minimized, and Alternatives that achieve this and provide opportunities for enhancement will be considered preferred.	<ul style="list-style-type: none"> MP = Provides formal direct access to the water over the greatest length P = Provides formal direct access to the water over second-greatest length IP = Provides formal direct access to the water over the second-shortest length LP = Does not provide for formal direct access to the water, or provides the least amount of direct access 	<p>Least Preferred</p> <ul style="list-style-type: none"> No formal direct public access to the water. 100% of the shoreline provides informal direct public access, of which approximately 50% is constrained by private property and critical infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately half the length of formal direct public access to the water, relative to Alternative 4B. 25% of the remaining shoreline is constrained by private property and critical infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately half the length of formal direct public access to the water, relative to Alternative 4B. Informal access reduced by 80% due to revetment; however, previously inaccessible areas are now accessible. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 30% of the length of formal direct public access to the water, relative to Alternative 4B. 35% of the remaining shoreline is constrained by private property and critical infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 30% of the length of formal direct public access to the water, relative to Alternative 4B. Informal access reduced by 60% due to revetment. 30% of the remaining shoreline is constrained by private property and critical infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 40% of the length of formal direct public access to the water, relative to Alternative 4B. 35% of the remaining shoreline is constrained by private property and critical infrastructure. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Provides approximately 40% of the length of formal direct public access to the water, relative to Alternative 4B. Informal access reduced by 60% due to revetment. 30% of the remaining shoreline is constrained by private property and critical infrastructure. 	<p>Preferred</p> <ul style="list-style-type: none"> Provides approximately half the length of formal direct public access to the water, relative to Alternative 4B. Informal access reduced by 50% due to revetment; however, previously inaccessible areas are now accessible. 	<p>Most Preferred</p> <ul style="list-style-type: none"> Provides the greatest length of shoreline that will provide direct formal access to the water (approximately 1400 m). Previously inaccessible areas are now accessible. 	<p>Least Preferred</p> <p>No change to existing conditions.</p>
	Potential for changes to the use of the waterfront for recreation			CRITERION-LEVEL RANKING	<p>Preferred</p> <p>No change to existing sandy shoreline, of which 50% is currently inaccessible and 15% has been previously modified. No enhanced beach area.</p>	<p>Preferred</p> <p>Approximate 25% reduction in existing sandy shoreline length, of which 100% is inaccessible and 40% has been previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B.</p>	<p>Least Preferred</p> <p>Approximate 70% reduction in existing sandy shoreline length, of which 60% is inaccessible and 20% was previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B.</p>	<p>Preferred</p> <p>Approximate 20% reduction in existing sandy shoreline length, of which 100% was inaccessible and 0% was previously modified. Provides approximately 30% of the cobble beach enhancement of Alternative 4B.</p>	<p>Least Preferred</p> <p>Approximate 70% reduction in existing sandy shoreline length, of which 80% is inaccessible and 0% was previously modified. Provides approximately 30% of the cobble beach enhancement of Alternative 4B.</p>	<p>Preferred</p> <p>Approximate 20% reduction in existing sandy shoreline length, of which 100% is inaccessible and 0% was previously modified. Provides approximately 40% of the cobble beach enhancement of Alternative 4B.</p>	<p>Least Preferred</p> <p>Approximate 70% reduction in existing sandy shoreline length, of which 80% is inaccessible and 0% was previously modified. Provides approximately 40% of the cobble beach enhancement of Alternative 4B.</p>	<p>Intermediate Preferred</p> <p>Approximate 40% reduction in existing sandy shoreline length, of which 90% is inaccessible and 25% was previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B.</p>	<p>Intermediate Preferred</p> <p>Approximate 45% reduction in existing sandy shoreline length, of which 90% is inaccessible and 25% was previously modified. Provides the greatest enhancement to cobble beach (approximately 1400 m).</p>	<p>Preferred</p> <p>No change to existing sandy shoreline, of which 50% is currently inaccessible and 15% has been previously modified. No enhanced beach area.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)	
		Potential for change in character of sandy shorelines	The existing sand beach at Bluffer's Park and sandy shoreline at East Point Park are valued by the public. Negative impacts and changes to these beaches are to be minimized, and Alternatives that achieve this and provide opportunities for enhancement will be considered preferred.	<ul style="list-style-type: none"> MP = No negative impact anticipated to the character of existing sand shoreline; and opportunities for enhancements P = No negative impact to character of existing sand shoreline IP = Minor negative impact to character of existing sand shoreline LP = Significant negative impact to character of existing sand shoreline 	<p>Preferred</p> <ul style="list-style-type: none"> No change to existing sandy shoreline, of which 50% is currently inaccessible and 15% has been previously modified. No enhanced beach area. 	<p>Preferred</p> <ul style="list-style-type: none"> Approximate 25% reduction in existing sandy shoreline length, of which 100% was inaccessible and 40% has been previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B. 	<p>Least Preferred</p> <ul style="list-style-type: none"> Approximate 70% reduction in existing sandy shoreline length, of which 60% was inaccessible and 20% was previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B. 	<p>Preferred</p> <ul style="list-style-type: none"> Approximate 20% reduction in existing sandy shoreline length, of which 100% was inaccessible and 0% was previously modified. Provides approximately 30% of the cobble beach enhancement of Alternative 4B. 	<p>Least Preferred</p> <ul style="list-style-type: none"> Approximate 70% reduction in existing sandy shoreline length, of which 80% was inaccessible and 0% was previously modified. Provides approximately 30% of the cobble beach enhancement of Alternative 4B. 	<p>Preferred</p> <ul style="list-style-type: none"> Approximate 20% reduction in existing sandy shoreline length, of which 100% was inaccessible and 0% was previously modified. Provides approximately 40% of the cobble beach enhancement of Alternative 4B. 	<p>Least Preferred</p> <ul style="list-style-type: none"> Approximate 70% reduction in existing sandy shoreline length, of which 80% was inaccessible and 0% was previously modified. Provides approximately 40% of the cobble beach enhancement of Alternative 4B. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Approximate 40% reduction in existing sandy shoreline length, of which 90% was inaccessible and 25% was previously modified. Provides approximately half the cobble beach enhancement of Alternative 4B. 	<p>Intermediate Preferred</p> <ul style="list-style-type: none"> Approximate 45% reduction in existing sandy shoreline length, of which 90% was inaccessible and 25% was previously modified. Provides the greatest enhancement to cobble beach (approximately 1400 m). 	<p>Preferred</p> <ul style="list-style-type: none"> No change to existing sandy shoreline, of which 50% is currently inaccessible and 15% has been previously modified. No enhanced beach area. 	
OBJECTIVE #3 OBJECTIVE-LEVEL RANKING					INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	PREFERRED	PREFERRED
Consistency and coordination with other initiatives	Ability to integrate with City and other agency plans and initiatives			CRITERION-LEVEL RANKING	<p>Least Preferred</p> <p>Planned expansion of the rail track by Metrolinx to accommodate the Regional Express Rail project could impact a section of the trail and could require its rerouting. This Alternative does</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Most Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative also provides</p>	<p>Intermediate Preferred</p> <p>This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track. This Alternative does</p>	

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
					not provide additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	additional contributions to the advancement of applicable fish community objectives.	not provide additional contributions to the advancement of applicable fish community objectives.
		Ability to integrate with new and proposed plans or initiatives	There are many plans and initiatives underway within the Study Area including for example: Metrolinx Regional Express Rail (RER) Program. The Alternatives will need to integrate, and accommodate these other initiatives. Alternatives that can best accommodate these plans/initiatives will be preferred.	<ul style="list-style-type: none"> • MP = Provides highest ability to accommodate other plans and initiatives • P = Provides opportunity to accommodate other plans and initiatives • IP = Provides intermediate opportunity to accommodate other plans and initiatives • LP = Provides the least opportunity to accommodate other plans and initiatives 	Least Preferred A section of the tableland trail between Grey Abbey Park and Copperfield Road runs along the south edge of the Metrolinx rail track. Planned expansion of the rail track by Metrolinx to accommodate the Regional Express Rail project could impact this section of the trail and could require its rerouting.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The Alternative includes a tableland connection at the Grey Abbey ravine with a new trail along the top-of-bluff in front of the FJ Horgan Water Treatment Plant. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion. Trail would be located away from the rail line.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The Alternative includes a tableland connection at the Grey Abbey ravine with a new trail along the top-of-bluff in front of the FJ Horgan Water Treatment Plant. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion. Trail would be located away from the rail line.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The Alternative includes a tableland connection at the Grey Abbey ravine with a new trail along the top-of-bluff in front of the FJ Horgan Water Treatment Plant. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The Alternative includes a tableland connection on the west side of East Point Park with a connection to an existing top-of-bank trail in front of the FJ Horgan Water Treatment Plant. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. The Alternative includes a tableland connection on the west side of East Point Park with a connection to an existing top-of-bank trail in front of the FJ Horgan Water Treatment Plant. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.	Most Preferred This Alternative can be integrated with the identified plans and initiatives. This Alternative would keep trail users along the tablelands at the Grey Abbey ravine. The trail would be rerouted away from the Metrolinx rail track which is proposed for expansion.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Consistency with the goals of the MNRF Fish Community Objectives for Lake Ontario	The MNRF Fish Community Objectives for Lake Ontario were created to maintain and increase target fish species in Lake Ontario. Alternatives which are able to advance these objectives are more preferred.	<ul style="list-style-type: none"> MP = Provides additional contributions to advancement of applicable objectives LP = Does not provide additional contributions to the advancement of applicable objectives 	Least Preferred Does not provide additional contributions to the advancement of any applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Most Preferred Provides additional contributions to the advancement of applicable fish community objectives.	Least Preferred Does not provide additional contributions to the advancement of any applicable fish community objectives.
	Compatibility with Existing Land Use			CRITERION-LEVEL RANKING	Least Preferred Existing trail closest to industrial and residential properties.	Preferred Section of new trail alignment runs directly in the back of industrial properties but trail relocated to open space. Limited private property acquisition.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from residential and industrial properties. Limited private property acquisition.	Preferred Section of new trail alignment runs directly in the back of industrial properties but trail relocated to open space. Limited private property acquisition.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from residential and industrial properties. Limited private property acquisition.	Preferred Section of new trail alignment runs directly in the back of industrial properties but trail relocated to open space. Limited private property acquisition.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from residential and industrial properties. Limited private property acquisition.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from residential and industrial properties. Limited private property acquisition.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from residential and industrial properties. Limited private property acquisition.	Intermediate Preferred Existing trail closest to industrial and residential properties.
	Compatibility with existing land use (industrial)	Industrial land uses exist within the Project Study Area. Alternatives which minimize impacts on existing industrial areas are more preferred.		<ul style="list-style-type: none"> MP = Most compatible with existing industrial land P = Compatible with existing industrial land IP = Somewhat compatible with existing industrial land LP = Least compatible with surrounding industrial land use 	Least Preferred Existing trail closest to industrial properties (runs along Copperfield Rd)	Intermediate Preferred Trail relatively close to industrial properties (behind, along top of bluffs).	Most Preferred The trail runs along the water's edge for its full length and is furthest away from industrial properties.	Intermediate Preferred Trail relatively close to industrial properties (behind, along top of bluffs).	Most Preferred The trail runs along the water's edge for its full length and is furthest away from industrial properties.	Intermediate Preferred Trail relatively close to industrial properties (behind, along top of bluffs).	Most Preferred The trail runs along the water's edge for its full length and is furthest away from industrial properties.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from industrial properties.	Most Preferred The trail runs along the water's edge for its full length and is furthest away from industrial properties.	Intermediate Preferred Trail relatively close to industrial properties (behind, along top of bluffs).

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Compatibility with existing land use (residential)	Residential land uses exist within the Project Study Area. Alternatives which minimize impacts on existing residential areas are more preferred.	<ul style="list-style-type: none"> • MP = Most compatible with existing residential land • P = Compatible with existing residential land • IP = Somewhat compatible with existing residential land • LP = Least compatible with surrounding residential land use 	<p>Intermediate Preferred</p> <p>Existing Waterfront Trail alignment is in residential areas. No private property required</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Preferred</p> <p>This Alternative is compatible with residential land use as it provides an opportunity to relocate the trail to open space. Limited private property would need to be acquired from the crest of the slope to the shore.</p>	<p>Intermediate Preferred</p> <p>This Alternative would keep trail users along the tablelands at the Grey Abbey ravine in the residential area.</p>
	Potential impact on archaeological resources, built heritage resources, and cultural heritage landscapes			CRITERION-LEVEL RANKING	<p>Most Preferred</p> <p>No impact to any known or potential archaeological resources.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>	<p>Preferred</p> <p>This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>	<p>Preferred</p> <p>This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>	<p>Preferred</p> <p>This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>	<p>Most Preferred</p> <p>No impact to any known archaeological resources however there is potential to find resources on the tablelands.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
		Potential to impact known or potential archaeological sites	Impacts to archaeological resources (terrestrial and/or marine) need to be minimized or mitigated. Alternatives that best achieve this will be considered as preferred.	<ul style="list-style-type: none"> • MP = Will not impact any known or potential archaeological resources • P = Has potential to impact archaeological resources but mitigation would be possible • IP = Low potential to impact archaeological resources, mitigation possible • LP = Will impact archaeological resources and cannot be effectively mitigated 	Most Preferred No impact to any known or potential archaeological resources.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.	Preferred This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures. Mitigation is possible.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.	Preferred This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures. Mitigation is possible.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.	Preferred This Alternative is not anticipated to impact any known or potential land-based archaeological resources as identified in a Stage 1 archaeological assessment. The marine archaeological assessment identified one archaeological artifact in proximity to the proposed shoreline protection structures. Mitigation is possible.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.	Most Preferred No impact to any known archaeological resources however there is potential to find resources on the tablelands.
OBJECTIVE #4 OBJECTIVE-LEVEL RANKING					LEAST PREFERRED	PREFERRED	PREFERRED	PREFERRED	PREFERRED	PREFERRED	PREFERRED	MOST PREFERRED	MOST PREFERRED	INTERMEDIATE PREFERRED
Achieve value for cost	Estimated capital cost			CRITERION-LEVEL RANKING	Most Preferred No new infrastructure. Least Cost. Lowest amount of private and Crown waterlot acquisition.	Intermediate Preferred Higher cost relative to Alternatives 2A, 2B, 4B and 5, but lower than Alternatives 1B, 3A, 3B, 4A and 4B. Potential for higher cost due to geotechnical requirements of the staircase.	Intermediate Preferred Higher cost relative to Alternatives 1A, 2A, 2B, 4B and 5, but lower than Alternatives 3A, 3B and 4A. Moderate amount of Crown waterlot and private property	Intermediate Preferred Higher cost than Alternative 5 but lower than Alternatives 1A, 1B, 2B, 3A, 3B, and 4A. Potential for higher cost due to geotechnical requirements of the staircase. Moderate	Intermediate Preferred Higher cost relative to Alternatives 2A, 4B and 5, but lower than Alternatives 1A, 1B, 3A, 3B, and 4A. Moderate amount of Crown waterlot and private property	Intermediate Preferred Highest cost relative to other alternatives. Potential for higher cost due to geotechnical requirements of the staircase. Moderate amount of Crown waterlot and private	Intermediate Preferred Higher cost relative to Alternatives 1A, 1B, 2A, 2B, 4B, and 5 but lower than Alternative 3A. Moderate amount of Crown waterlot and private property acquisition.	Intermediate Preferred Higher cost relative to Alternatives 1A, 1B, 2A, 2B, 4B and 5 but lower than Alternative 3A. Moderate amount of Crown waterlot and private property acquisition.	Intermediate Preferred Higher cost than Alternative 5 but lower than Alternatives 1A, 1B, 2B, 3A, 3B, and 4A. Moderate amount of Crown waterlot and private property acquisition.	Preferred Low relative cost as no shoreline works. Grey Abbey bridge construction is most significant cost. Low amount of Crown waterlot acquisition and no private property acquisition.

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
						Moderate amount of Crown waterlot and private property acquisition.	acquisition.	amount of Crown waterlot and private property acquisition.	acquisition.	property acquisition.				
		Estimated cost to construct (relative to each other)	High level relative costs for the alternatives have been developed. Less expensive Alternatives will be scored higher.	<ul style="list-style-type: none"> MP = Lowest construction cost P = Low intermediate construction cost IP = High intermediate construction cost LP = Highest construction cost 	<p>Most Preferred</p> <p>No construction cost.</p>	<p>Intermediate Preferred</p> <p>Higher cost relative to Alternatives 2A, 2B, 4B and 5, but lower than Alternatives 1B, 3A, 3B, 4A and 4B.</p>	<p>Intermediate Preferred</p> <p>Higher cost relative to Alternatives 1A, 2A, 2B, 4B and 5, but lower than Alternatives 3A, 3B and 4A.</p>	<p>Intermediate Preferred</p> <p>Higher cost than Alternative 5 but lower than Alternatives 1A, 1B, 2B, 3A, 3B, and 4A.</p>	<p>Intermediate Preferred</p> <p>Higher cost relative to Alternatives 2A, 4B and 5, but lower than Alternatives 1A, 1B, 3A, 3B, and 4A.</p>	<p>Least Preferred</p> <p>Highest cost relative to other alternatives.</p>	<p>Least Preferred</p> <p>Higher cost relative to Alternatives 1A, 1B, 2A, 2B, 4B, and 5 but lower than Alternative 3A.</p>	<p>Least Preferred</p> <p>Higher cost relative to Alternatives 1A, 1B, 2A, 2B, 4B and 5 but lower than Alternative 3A.</p>	<p>Intermediate Preferred</p> <p>Higher cost than Alternative 5 but lower than Alternatives 1A, 1B, 2B, 3A, 3B, and 4A.</p>	<p>Preferred</p> <p>Lowest cost next to the Do Nothing. Grey Abbey bridge construction is most significant cost.</p>
		Potential amount of waterlot and property acquisition required (relative to each other)	Some Alternatives could require Crown waterlots (measured between the outmost extent of the Alternative and the shoreline), private property and/or easements across private property. Alternatives that minimize impacts to Crown waterlots and private property are Preferred.	<ul style="list-style-type: none"> MP = Will not require private property or Crown waterlots P = Will require the least amount of private property parcels and/or Crown waterlots IP = Will require a greater amount of private property parcels and/or Crown waterlots LP = Will require the greatest amount of 	<p>Most Preferred</p> <p>Will not require acquisition of Crown waterlots or private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 13.2 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 14.1 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 9.9 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 10.8 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 11 ha of Crown waterlot and private property acquisition.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 12 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 12.9 ha of Crown waterlot and private property.</p>	<p>Intermediate Preferred</p> <p>Will require approximately 13.7 ha of Crown waterlot and private property.</p>	<p>Preferred</p> <p>Will require approximately 4.8 ha of private property. No Crown waterlot acquisition will be required.</p>

OBJECTIVES	CRITERIA	INDICATORS	INDICATOR DEFINITIONS	RANKING MEASURES	DO NOTHING (EXISTING CONDITIONS)	ALTERNATIVE 1A (HEADLAND BEACH WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 1B (HEADLAND BEACH WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 2A (BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 2B (BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 3A (ISLAND-BRIDGE & HEADLANDS WITH TOP OF BLUFFS CONNECTION)	ALTERNATIVE 3B (ISLAND-BRIDGE & HEADLANDS WITH BASE OF BLUFFS CONNECTION)	ALTERNATIVE 4A (HEADLAND BEACH WITH REVETMENT TO EAST POINT PARK)	ALTERNATIVE 4B (HEADLAND BEACH TO EAST POINT PARK)	ALTERNATIVE 5 (TOP OF BLUFFS CONNECTION OVER GREY ABBEY RAVINE)
				private property parcels and/or Crown waterlots										
	Maintenance and operations costs			CRITERION-LEVEL RANKING	Most Preferred Maintenance of existing works required, but most are private. Erosion works will be required in the future at Grey Abbey.	Preferred Low maintenance requirements.	Preferred Low maintenance requirements.	Intermediate Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Preferred Low maintenance requirements.	Preferred Low maintenance requirements.	Most Preferred Maintenance of existing works required, but most are private. Erosion works will be required in the future at Grey Abbey.
	Relative maintenance and operation costs of the shoreline and erosion works	Alternatives that would be expected to have lower maintenance and operations cost would be preferred.	<ul style="list-style-type: none"> • MP = Lowest maintenance and operations costs • P = Low intermediate maintenance and operation cost • IP = High intermediate maintenance and operation costs • LP = Highest maintenance and operation costs 	Most Preferred Maintenance of existing works required, but most are private. Erosion works will be required in the future at Grey Abbey.	Preferred Low maintenance requirements.	Preferred Low maintenance requirements.	Intermediate Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Least Preferred Expected to have highest maintenance cost due to exposed nature of the bridge and need to replace components (e.g., bridge railings, deck, etc.). Low maintenance requirements for shore protection works.	Preferred Low maintenance requirements.	Preferred Low maintenance requirements.	Most Preferred Maintenance of existing works required, but most are private. Erosion works will be required in the future at Grey Abbey.
OBJECTIVE #5 OBJECTIVE-LEVEL RANKING					MOST PREFERRED	PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	LEAST PREFERRED	LEAST PREFERRED	LEAST PREFERRED	PREFERRED	PREFERRED	PREFERRED
EAST SEGMENT ALTERNATIVES FINAL OVERALL RANKING					INTERMEDIATE PREFERRED	PREFERRED	PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	INTERMEDIATE PREFERRED	PREFERRED	MOST PREFERRED	INTERMEDIATE PREFERRED