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11. Advantages and Disadvantages

The overall advantages and disadvantages of the DMNP are articulated, summarized and assessed in this section of the EA. Advantages are positive net effects to the natural and socio-economic environment, while disadvantages are negative net effects. The purpose of this chapter is to provide an overall conclusion as to whether, in comparison with the “Do Nothing” Alternative, the negative net effects of the DMNP are acceptable, based on a balanced assessment against the positive net effects. As noted in **Sections 2.1** and **5.2.2.1**, the “Do Nothing” Alternative is not technically feasible since it does not provide for flood protection from the Regulatory Flood and the existing configuration of the Keating Channel does not permit the establishment of the naturalized community. However, the Ontario *EA Act* requires this final comparison of the undertaking to the “Do Nothing” Alternative, for Individual EA projects (Section 6.1(2)). **Table 11-1** summarizes the key advantages and disadvantages of the DMNP.

Table 11-1 Advantages and Disadvantages of the DMNP

Project Objective	Advantages	Disadvantages
<p>1. Naturalization</p>	<ul style="list-style-type: none"> • Naturalization of the mouth of the Don River creates aquatic, wetland and terrestrial habitat and significant improvement in connections with other natural areas (Environmentally Significant Areas (ESAs), Cherry Beach, Tommy Thompson Park). <ul style="list-style-type: none"> • Creation of 13 ha of higher functioning aquatic habitat (represented by 6 ha within the new river valley system and 7 ha within modified Keating Channel); • 4 ha of terrestrial habitat within the river valley system; • 13 ha of higher functioning wetland habitat (including 10 ha of lake-connected wetlands and 2.5 ha of levee system wetland); and, • 2 ha wetland patch with potential to attract less common marsh species. • Increase in migratory bird refuge function and bird biodiversity. • Improved water quality within the lake-connected wetlands compared to the Keating Channel. 	<ul style="list-style-type: none"> • Permanent alteration, disruption or destruction of 4 ha of low quality aquatic habitat. • Permanent removal of 8 ha of low quality terrestrial habitat within the Project Study Area. • Permanent removal of 4 ha of an ESA east of the Don Roadway at Villiers Street. • Temporary disturbance to 10 ha of low quality aquatic habitat.
<p>2. Flood Protection</p>	<ul style="list-style-type: none"> • Removal of over 240 ha of land and 850 buildings within Spill Zones 1 and 2 from flood risk, without exacerbating flood risk elsewhere. The removal of flood risk will allow the redevelopment of new communities as planned in the amended Central Waterfront Secondary Plan. It will also remove the potential for damages that are estimated to exceed \$305 million (in 2010 dollars) associated with existing development in the event of a Regulatory Flood. • Increased assessment values within the Lower Don Lands as a result of removal of flood risk and increase in amenity value created by new river channel, floodplain and park system. The value of these lands is estimated to increase 25-fold once construction is complete. 	
<p>3. Operational Management and Constructability</p>	<ul style="list-style-type: none"> • Capacity to adapt the DMNP with respect to naturalization and flood protection against the possible effects of climate change. • Greater flexibility in dredging operations due to changes in dredging technology. 	<ul style="list-style-type: none"> • Permanent loss of potential mooring revenue associated with the removal / modification of approximately 2,500 m of dockwall along quays and space available for shipping activities in the Inner Harbour.

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Project Objective	Advantages	Disadvantages
<p>4. Integration with Infrastructure</p>	<ul style="list-style-type: none"> Revitalization of a contaminated and underutilized section of the waterfront through an innovative method of community-planning: integrating the form and function of the river with the surrounding development and infrastructure, leading to communities that are built in harmony with natural processes. 	<ul style="list-style-type: none"> Short-term, infrequent and highly localized nuisance effects associated with dust, combustion emissions, noise and traffic disruption during construction. Permanent removal of existing land uses and disturbance to some private properties as directed in the Central Waterfront Secondary Plan. Costs of construction and operation / maintenance.
<p>5. Recreational and Cultural Opportunities</p>	<ul style="list-style-type: none"> Creation of an exciting destination along Toronto's waterfront for both residents and local and regional visitors. This new, revitalized destination in the heart of the City will introduce new generations of visitors to one of the rivers that marked the original boundaries of Toronto. Creation of 12 ha of parkland above top of bank outside of the new river valley system, including the park at Essroc Quay, that is intended to accommodate passive and active recreational uses. A new series of pedestrian and biking trails with connectivity to existing recreational trails and increased length of river for recreational boating. 	<ul style="list-style-type: none"> Displacement of some cultural heritage resources and landscapes and a decrease in heritage value of some properties within the Project Study Area due to disturbance during construction. Nuisance effects from changes in noise levels due to construction and sediment / dredging equipment.
<p>6. Co-ordination with other Planning Efforts</p>	<ul style="list-style-type: none"> Planning for the naturalization of the new river valley system and river mouth has been co-ordinated with relevant planning documents and policies throughout the EA process. Planning is consistent with the intent of the Provincial Policy Statement (PPS), the Ontario <i>Places to Grow Act</i> (2005) and the Growth Plan for the Greater Golden Horseshoe (2006). Removal of flood risk permits planned mixed use redevelopment which will increase property assessment values and thus property taxes. Infrastructure investment resulting in 3,900 full-time job years in direct employment and 4,900 full-time job years in indirect and induced employment. 	<ul style="list-style-type: none"> Removal of some existing land uses may result in loss of lease revenue for the City of Toronto and lost revenue for business owners if businesses are not able to relocate as a result of expired leases.
<p>7. Consistency with Waterfront Toronto Sustainability Framework</p>	<ul style="list-style-type: none"> Excavation and treatment / disposal of up to 2.3 million cubic metres of soil and isolation of contaminated groundwater from the new naturalized area. Addresses other aspects of the Sustainability Framework as follows: <ul style="list-style-type: none"> <i>Recapture Value of Abandoned and Underutilized Sites</i> <ul style="list-style-type: none"> Creation of a new river valley system will involve redevelopment of contaminated sites that are either vacant or underutilized and allow for reuse of adjacent lands that are currently underutilized due to flooding constraints <i>Waterfront Communities that Attract People Year Round</i> <ul style="list-style-type: none"> The conceptual design includes over 12 ha of parkland outside of the floodplain Future precinct planning will determine the specific uses of parkland within the Project Study Area; however, it is intended that parkland will accommodate a range of recreational uses Recreational boating opportunities will be enhanced by the extension of the Don River through the creation of a new low flow channel 	<ul style="list-style-type: none"> Nuisance effects from hauling of soil (dust, noise, traffic and odour).

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Project Objective	Advantages	Disadvantages
	<ul style="list-style-type: none"> ▪ <i>State-of-the-Art Integrated Soil Management</i> <ul style="list-style-type: none"> – Contaminated soils excavated from the site will be reused and treated on-site or transported off-site for treatment or disposal ▪ <i>Protect Groundwater from Contamination</i> <ul style="list-style-type: none"> – The design of the river valley includes a selectively permeable or impermeable barrier to isolate contaminated groundwater from clean soils and water – Construction techniques have also been identified to ensure that clean stormwater does not intercept contaminated groundwater during excavation ▪ <i>Enhanced Terrestrial and Aquatic Habitat</i> <ul style="list-style-type: none"> – Over 30 ha of habitat are being created, including 17 ha of naturalization (terrestrial and wetland) habitat and 13 ha of permanent aquatic habitat – All 30 ha are either in-water or along the water's edge and contribute to improved connectivity between the site and adjacent natural systems – 7 ha of existing infrastructure within the Keating Channel will be improved to provide enhanced fish habitat ▪ <i>Extensive Habitat Improvement</i> <ul style="list-style-type: none"> – Creation of higher functioning habitats (figures noted above) that will attract a greater diversity of species – New vegetation communities will enhance the ability of migratory birds, bats and insects to move through the Project Study Area – Improved ecological connectivity within the Project Study Area and to adjacent areas (e.g., Inner Harbour, Don Valley) – Vegetation will be designed to impede wildlife from crossing right-of-ways ▪ <i>Strengthen Native Biodiversity</i> <ul style="list-style-type: none"> – Although a planting plan is not included in this EA, it is intended that plants used to establish the naturalized communities will be indigenous and appropriate for the conditions ▪ <i>Increase Walking, Cycling and Public Transit Use</i> <ul style="list-style-type: none"> – A pedestrian trail system has been provided for adjacent to the river within the river floodplain. It will be a major connecting link between the Don Valley trail system, the Don Greenway and the Martin Goodman Trail, as well as the various natural communities in the Lower Don Lands ▪ <i>Protect and Enhance Existing Cultural and Heritage Resources, Including Built Heritage</i> <ul style="list-style-type: none"> – The location of the new river valley system allows for the continued existence of the Keating Channel in a modified form and avoids many existing built and cultural heritage resources within the Project Study Area – Those resources that are within or adjacent to the floodplain, including the Marine Terminal building and the easternmost Harbour Commissioners storage building, will be conserved, relocated and raised where feasible or otherwise commemorated 	

A review of **Table 11-1** clearly illustrates that the outcomes of the DMNP are strongly beneficial for all aspects of the environment, resulting in a redesigned river mouth that will properly convey floodwaters, provide habitat for aquatic species and wildlife and be a destination for residents and visitors alike.

The DMNP will achieve the objectives set out in the ToR and reaffirmed in the EA by creating a functioning river mouth that will remove over 240 hectares of land and 850 buildings from flood risk in Spill Zones 1 and 2. This removal of flood risk will allow development within the Port Lands to occur as planned in the Central Waterfront Secondary Plan. The value of these lands is estimated to increase 25-fold, from \$20 million presently to \$470 million (in 2010 dollars) once construction is complete.

Naturalization of the river mouth will create higher-quality aquatic, terrestrial and wetland habitat, which will lead to increased biodiversity and significantly-improved habitat connections, a more resilient river valley system and a number of new recreational opportunities. The mouth of the Don River will become a destination for residents and visitors both locally and regionally.

In addition, changes to existing dredging technology (hydraulic dredge, slurry pipe and hydrocyclone) are expected to provide for greater flexibility during operations, since the dredge can be easily moved to different locations and the hydrocyclone allows for the potential reuse of clean sediment for beneficial purposes.

Further, all components of the design have been developed to align with Waterfront Toronto's Sustainability Framework, where possible. As described in **Chapter 2**, the Sustainability Framework provides the overarching corporate policy for the integration of sustainability principles into all facets of decision making and project delivery.

The disadvantages of the DMNP will primarily occur during construction. Temporary negative effects include minimal nuisance effects (i.e., air, noise, combustion emissions and traffic) to recreational users, businesses and future residents and necessary relocation of current business uses on leased lands, all of which will be minimized by Best Management Practices (BMPs) (**Appendix G**). The permanent loss of low-quality habitat will be offset by significant gains in higher-quality and higher-functioning habitat, as described above. The majority of heritage buildings are being avoided by the river and the ones that are not will be relocated / commemorated in an appropriate manner. Where construction of the DMNP displaces or disrupts the use of property that is privately held, is subject to longer-term leases or is owned by the Federal government, arrangements will be made for loss of property and / or activity (i.e., negotiations for potential relocation and / or compensation).

Conversely, construction of the DMNP will have the benefit of improving local economic conditions by creating a significant number of construction-related jobs. The costs of the DMNP (maintenance, loss of mooring revenue and removal of existing land uses) will be more than offset by the billions of dollars of investment in the Lower Don Lands and Port Lands that becomes possible after construction of the DMNP and the additional economic value and quality of life improvements that the DMNP will provide. Without the DMNP, development of the Lower Don Lands as envisioned by the City of Toronto, Waterfront Toronto and TRCA cannot proceed.

In conclusion, the negative net effects of the DMNP, most of which will occur during construction and are considered to be temporary or negligible, are more than offset by the much greater positive contributions of the DMNP, including flood protection, naturalization, revitalization, employment and recreational opportunities, broad economic benefits and improved operation of the river system. The DMNP will transform a degraded area with limited potential for use into a spectacular public greenspace in the heart of downtown Toronto, surrounded by a progressive and sustainable urban fabric. The DMNP epitomizes excellence in landscape and urban design and incorporates state-of-the-art technologies and science, combined with progressive ecological management principles. The final outcome of the DMNP is an environment far superior to existing conditions.