



# **EVALUATION OF ALTERNATIVES**

Evaluation Criteria	Do Nothing	Traditional SWM Strategy (end-of- pipe only)	Low Impact Development (LID) Strategy	Combined Traditional & LID
1. Natural Environment (Score out of 33.3)	0.0	20.0	23.3	30.0
Potential to improve water quality based on existing water quality conditions and ability to provide required water quality as per the MECP requirements	0	3	3	3
Potential Impact on Flooding	0	3	2	4
Potential Impact on Erosion	0	2	3	4
Potential Impact on Aquatic Habitat	0	2	3	4
Potential Impact on Water Balance	0	0	3	3
2. Social (Score out of 33.3)	2.1	18.7	18.7	31.2
Aesthetics/Recreation	1	3	3	4
Integration with other City/Agency plans, policies and initiatives (programs)	0	2	2	4
Compatibility with adjacent land uses	0	2	2	4
Potential to increase private property values	0	2	2	3
3. Economic (Score out of 33.3)	22.2	19.4	19.4	16.7
Construction Costs	4	2	3	1
Long Term Operation and Maintenance Costs	4	2	3	1
Infrastructure Protection	0	3	1	4
Total Normalized Score (1+2+3: Score out of 100)	24.3	58.1	61.4	77.9

## **Description of Natural Environment**

Criteria	Measures for Assigning Scores
Potential to improve water quality based on existing water quality conditions and ability to provide required water quality as per the MECP requirements	Scoring ranges from 4 if the alternative exceeds an estimated 100% of the required water quality control as per MECP requirements to zero if no water quality treatment is provided. Interim scores are provided based on the percentage of the required water quality control that is provided
Potential Impact on Flooding	• Scoring ranges from 4 if the alternative reduces flood potential to 0 if the alternative has the potential to increase flooding. Interim scores are provided based on the percentage of increase in flooding
Potential Impact on Erosion	Scoring ranges from 4 if the alternative reduces erosion potential to 0 if the alternative has the potential to significantly increase erosion potential. Interim scores are provided based on the percentage of increase in erosion potential
Potential Impact on Aquatic Habitat	<ul> <li>Scoring ranges from 4 if the alternative</li> <li>improves existing aquatic habitat to 0 if the alternative has the potential to significantly degrade existing habitat.</li> <li>Interim scores are provided based on the relative impact to habitat</li> </ul>
Potential Impact on Water Balance	Scoring ranges from 4 if the alternative improves existing (pre-development) hydrologic cycle to 0 if the alternative significantly alters the cycle. Interim scores are provided based on relative impact to cycle.

## **Description of Social**

Criteria	Description of Criteria	Measures for Assigning	
		Scores	
Aesthetics/Recreation	Potential for the	• Scoring ranges from 4 if	
	alternative to become an	the alternative has a high	
	asset to the community	potential to integrate into	
	by integrating and	existing activities and/or	
	improving the existing	improve aesthetics to 0 if	

	site activities (walking/jogging, cycling, biking and hiking) and/or improve the site aesthetics	there is minimal potential and/or existing site uses will be lost to the community
Integration with other City/Agency plans, policies and initiatives (programs)	Potential for alternative to integrate with other City/Agency plans, policies and initiatives (programs) including, but not limited to: Parks Master Plan (park planning, park rehabilitation and service levels), urban forestry objectives, cycling and trails master plans and MECP Climate Change LID Stormwater Management Guidance Document	Scoring ranges from 4 if the alternative has a high potential to complement existing City and Agency plans, policies and initiatives (programs) to 0 if the proposed alternative impedes plans, policies and initiatives  and initiatives
Compatibility with adjacent land uses	Potential for alternative to integrate with the adjacent land uses in regards to aesthetics, community expectations. It includes consideration for existing site uses and the expectation that adjacent residents have in maintaining these uses	• Scoring ranges from 4 if the alternative has a high potential to integrate with land uses in regards to community expectation and aesthetics; to 0 if the proposed alternative does not integrate well and, as such, would require a change as to how the site is perceived and therefore used by adjacent landowners
Potential to increase private property values	Potential for alternative to increase or decrease private property values	• Scoring ranges from 4 if the alternative increases overall property value to 0 if the alternative reduces values

### **Description of Economic**

Criteria	Description of Criteria	Measures for Assigning
		Scores

Construction Costs	The relative estimated cost as compared to the other alternatives	• Scoring ranges from 4 if the relative cost, based on the identified factors is the lowest; to 0 if the relative cost is the highest
Long Term Operation and Maintenance Costs	The relative cost of operation and maintenance for the proposed alternative based on factors such as access/egress, sediment drying capability, ongoing general maintenance to associated infrastructure and overall maintenance frequency and intensity	• Scoring ranges from 4 if the relative operation and maintenance costs for the alternative is the lowest as compared to the other alternative to 0 if the alternative results int the highest operation and maintenance cost
Infrastructure Protection	Potential for the proposed alternative to protect existing or future infrastructure including streams, outfalls, storm sewers watercourse crossings	• Scoring ranges from 4 if the alternative is the most effective at protecting existing and proposed infrastructure thereby reducing risk; to 0 if existing/proposed infrastructure is most susceptible

Potential to improve water quality based on existing water quality conditions and ability to provide required water quality as per the MECP requirements

Do Nothing (0) Alternative would result in significant degradation to existing water quality

**Traditional (3)** Alternative will meet MECP requirements

LID (3) Alternative will meet MECP requirements

**Traditional + LID (3)** Alternative will meet MECP requirements

#### **Potential to Improve Flooding**

**Do Nothing (0)** Alternative would result in significant increases in flood potential

Traditional (3) Alternative would result in similar level of flood potential as per existing conditions

LID (2) Alternative would result in some increases in flood potential

Traditional + LID (4) Alternative generally reduces flood potential as compared to existing conditions

#### **Potential to Improve Aquatic Habitat**

Do Nothing (0) Alternative would result in significant degradation to aquatic habitat

Traditional (2) Alternative would result in some degradation to aquatic habitat

LID (3) Alternative would result in similar aquatic habitat as per existing conditions

Traditional + LID (4) Alternative would improve existing habitat

#### **Potential to Improve Erosion**

**Do Nothing (0)** Alternative would result in significant increase in erosion potential

Traditional (2) Alternative would result in some increase in erosion potential

LID (3) Alternative would result in similar level of erosion potential

Traditional + LID (4) Alternative would result in reduction of erosion potential

#### **Potential Impact on Water Balance**

Do Nothing (0) Alternative would result in significant alteration to the existing hydrologic cycle

Traditional (0) Alternative would result in significant alteration to the existing hydrologic cycle

LID (3) Alternative would maintain existing hydrologic cycle

Traditional + LID (3) Alternative would maintain existing hydrologic cycle

#### Aesthetics/Recreation

**Do Nothing (1)** Alternative will have potential to integrate into existing activities and will contribute to degradation of aesthetics

**Traditional (3)** Alternative will have high potential to integrate into existing activities and improve aesthetics

**LID (3)** Alternative will integrate into existing activities and would improve aesthetics over a broad range of sites

**Traditional + LID (4)** Alternative will have high potential to integrate into existing activities and would improve aesthetics over a broad range of sites

#### Integration with City/Agency plans, policies and initiatives

Do Nothing (0) Alternative is not consistent with either City of Agency plans, policies or initiatives

Traditional (2) Alternative is consistent with some City and Agency plans, policies and initiatives

LID (2) Alternative is consistent with some City and Agency plans, policies and initiatives

**Traditional + LID (4)** Alternative is consistent with a range of City plans, policies and initiatives as well as Agency policies

#### Compatibility with adjacent land uses

**Do Nothing (0)** Alternative would not integrate with adjacent land uses with respect to community expectations, aesthetics or maintaining existing uses

**Traditional (2)** Alternative would reasonably integrate with adjacent land uses with respect to community expectations, aesthetics or maintaining existing uses

**LID (2)** Alternative would reasonably integrate with adjacent land uses with respect to community expectations, aesthetics or maintaining existing uses

**Traditional + LID (4)** Alternative has high potential to integrate with a wide range of adjacent land uses with respect to community expectations, aesthetics and maintaining existing uses

#### Potential to increase property values

**Do Nothing (0)** Alternative has significant potential to reduce value of properties adjacent to watercourses

Traditional (2) Alternative has potential to increase property values adjacent to the proposed facilities

LID (2) Alternative has potential to somewhat increase property values in a wide range of land uses

Traditional + LID (3) Alternative has potential to increase property values adjacent to facilities and for a wide range of land uses

#### **Construction Costs**

Do Nothing (4) Alternative would have the lowest cost of the four which are presented

Traditional (2) Alternative would have the second highest cost of the four which are presented

LID (3) Alternative would have the third highest cost of the four which are presented

Traditional + LID (1) Alternative would have the highest cost of the four which are presented

#### **Long Term Operation and Maintenance Costs**

Do Nothing (4) Alternative would have the lowest cost of the four which are presented

Traditional (2) Alternative would have the second highest cost of the four which are presented

LID (3) Alternative would have the third highest cost of the four which are presented

Traditional + LID (1) Alternative would have the highest cost of the four which are presented

#### Infrastructure Protection

**Do Nothing (0)** Alternative would adversely impact existing and proposed infrastructure **Traditional (3)** Alternative would be reasonably effective at protecting existing and proposed infrastructure

**LID (1)** Alternative would result in some effectiveness at protecting existing and proposed infrastructure **Traditional + LID (4)** Alternative has the highest potential to protect existing and proposed infrastructure