



Appendix P

Reasoned Argument (or Trade-Off) Method Description Detailed Results of Comparative
Evaluation for the Short listed Alternative Water Reclamation Centre Sites

Sub-Task 6.1. Identify Indicator Rankings Based On Net Effects

As a first step, the net effects identified for each short list alternative Water Reclamation Centre Site by indicator were compared to one another to identify an indicator ranking by alternative. The following indicator rankings (first through fifth) were used based on the comparative evaluation of the net effects associated with each alternative:

- **First** – assigned to an alternative which has the least adverse net environmental effects or highest positive net environmental effects among all of the alternatives being considered.
- **Second** – assigned to an alternative which has greater adverse net environmental effects or less positive net environmental effects compared to the alternative ranked as **First**.
- **Third** – assigned to an alternative which has greater adverse net environmental effects or less positive net environmental effects compared to the alternatives ranked as **Second**, but less adverse net environmental effects or greater positive net environmental effects compared to the alternative ranked as **Fourth**.
- **Fourth** – assigned to an alternative which has greater adverse net environmental effects or less positive net environmental effects compared to the alternatives ranked as **Third**, but less adverse net environmental effects or greater positive net environmental effects compared to the alternative ranked as **Fifth**.
- **Fifth** – assigned to the alternative which has the greatest adverse net environmental effects or lowest positive net environmental effects among all of the alternatives being considered.

If the corresponding net effects of an indicator were the same for two or more of the alternatives, then those alternatives were ranked equally with the use of a “**tied**” being added to the indicator ranking (i.e., **First (Tied)**, **Second (Tied)**, etc.). In the case where two alternatives were ranked as tied (i.e., **First (Tied)**), then the next top placed alternative was ranked as **Third** instead of **Second** because two of the alternatives were already accounted for in the ranking.

Sub-Task 6.2. Identify Criterion Rankings Based on Indicator Rankings

The indicator rankings identified through the first task were considered collectively to assign an alternative ranking by evaluation criterion. The following criterion rankings were utilized based on the indicator rankings associated with each alternative:

- **Most Preferred** – assigned to an alternative having the most top placed indicator rankings (e.g., **First**, **Second** and **Third** rankings) among all of the alternatives being considered.
- **More Preferred** – assigned to an alternative having the second most top placed indicator rankings among all of the alternatives being considered.
- **Moderately Preferred** – assigned to an alternative having the third most top placed indicator rankings among all of the alternatives being considered.

- **Less Preferred** – assigned to an alternative having the second fewest top placed indicator rankings among all of the alternatives being considered.
- **Least Preferred** – assigned to an alternative having the fewest top placed indicator rankings among all of the alternatives being considered.

If the corresponding criterion rankings were the same for two or more of the alternatives, then those alternatives were ranked equally with the use of a “**tied**” being added to the criterion ranking (i.e., **Most Preferred (Tied)**, **More Preferred (Tied)**, etc.). A rationale for the alternative rankings by criterion was provided accordingly.

Sub-Task 6.3. Identify Category Rankings Based on Criterion Rankings

In Sub-Task 6.3, the criterion rankings identified through the preceding task were considered collectively to assign an alternative ranking (i.e., **Most Preferred**, **More Preferred**, **Moderately Preferred**, **Less Preferred** and **Least Preferred** (includes **Ties**)) by individual category. As mentioned, the individual categories included Technical, Natural Environment, Built Environment, Social Environment, Economic Environment, Cultural Environment, and Financial.

The assignment of an alternative ranking was based on the number of evaluation criteria associated with a particular category. For example, in the situations where a category only had one evaluation criterion associated with it (e.g., **Technical** and **Financial**), then the same alternative rankings for that evaluation criterion were assigned to the category. In other words, the alternative rankings for both the evaluation criterion and associated category were the same.

However, in the situations where a category had more than one evaluation criterion, then all of the evaluation criterion rankings were considered collectively to identify an alternative ranking for the category. For example, in the case of the Natural Environment Category, rankings assigned for all nine Natural Environment evaluation criteria were considered collectively in determining the alternative rankings for the Natural Environment Category. In these situations, a rationale for the alternative rankings by category was provided including a listing of advantages and/or disadvantages.

Sub-Task 6.4: Identify Overall Alternative Method Rankings Based on Category Rankings

Following the identification of category rankings, an overall ranking for each short listed alternative Water Reclamation Centre Site was determined based on the seven category rankings (i.e., **Most Preferred**, **More Preferred**, **Moderately Preferred**, **Less Preferred** and **Least Preferred** (includes **Ties**)). With this in mind, the following overall rankings were utilized based on the category rankings associated with each alternative:

- **Recommended** – assigned to an alternative having the greatest number of top placed category rankings (e.g., more **Most Preferred**, **More Preferred** and **Moderately Preferred** rankings) among all of the alternatives being considered, thus providing the highest number of advantages and the least number of disadvantages overall.

- **Not Recommended** – assigned to an alternative having fewer number of top placed category rankings among all of the alternatives being considered, thus providing the higher number of disadvantages and lower number of advantages overall.

Sub-Task 6.5: Identify Recommended Alternative Method Based on Category Rankings

Lastly, a Recommended Water Reclamation Centre Site was identified based on the overall alternative rankings determined through Sub-Task 6.4 and a rationale supporting the recommendations was provided.



Environmental Assessment Report
Upper York Sewage Solutions EA



Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
Technical	Carbon Dioxide (CO ₂) Equivalent Footprint	Equivalent CO ₂ (CO ₂ e) generated in tonnes CO ₂ e/year ³	<ul style="list-style-type: none"> The lower CO₂e/year, the better the ranking. 	<p>Site</p> <ul style="list-style-type: none"> Approximately 2,780 tonnes CO₂e/year. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> Approximately 149 tonnes CO₂e /year. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> Approximately 54 tonnes CO₂e /year. <p>First (Tied)</p>	<ul style="list-style-type: none"> Approximately 2,780 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 188 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 40 tonnes CO₂e/year. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> Approximately 2,780 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 149 tonnes CO₂e /year. <ul style="list-style-type: none"> Approximately 54 tonnes CO₂e /year. <p>First (Tied)</p>	<ul style="list-style-type: none"> Approximately 2,780 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 188 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 40 tonnes CO₂e/year. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> Approximately 2,780 tonnes CO₂e/year. <ul style="list-style-type: none"> Approximately 149 tonnes CO₂e /year. <ul style="list-style-type: none"> Approximately 54 tonnes CO₂e /year. <p>First (Tied)</p>
Technical Category Ranking & Rationale:				Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)
				The Site is Most Preferred from a Technical Category perspective compared to the other Sites because it would generate the lowest amount of CO ₂ e/year.	The Site is Least Preferred from a Technical Category perspective compared to the other Sites because it would generate the highest amount of CO ₂ e/year.	The Site is Most Preferred from a Technical Category perspective compared to the other Sites because it would generate the lowest amount of CO ₂ e/year.	The Site is Least Preferred from a Technical Category perspective compared to the other Sites because it would generate the highest amount of CO ₂ e/year.	The Site is Most Preferred from a Technical Category perspective compared to the other Sites because it would generate the lowest amount of CO ₂ e/year.
Natural Environment	Effect on groundwater	Temporary and/or long-term change in groundwater quality		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. <ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure to the Site along Holborn Road would be minimized by using appropriate construction methods. <ul style="list-style-type: none"> No long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. <ul style="list-style-type: none"> No temporary and/or long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. <ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure to the Site along Holborn Road would be minimized by using appropriate construction methods. <ul style="list-style-type: none"> No long-term net effects 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. <ul style="list-style-type: none"> No temporary and/or long-term net effects.

1. In general, no net effects ranked better than temporary effects and temporary effects ranked better than permanent effects.

2. The effects associated with the Outfall and the Treated Effluent Discharge to the East Holland River are the same for all Sites and resulted in no difference in ranking of the five alternative Sites and were excluded from this comparative evaluation table.

3. Equivalent CO₂ generated indicator includes direct and indirect emissions (i.e., from electricity generation) of CO₂, CH₄, N₂O. Direct emissions include natural gas, transportation related emissions, process related emissions, equipment related emissions, chemical usage related emissions, and off-Site biosolids/residuals decomposition emission. Further details are provided in the Technical Concept Level 2 Document, (CRA et al., February 2013).

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The greater the potential for dewatering during construction, the worse the ranking. 	<p>Conveyance Infrastructure from Site to Outfall⁴</p> <ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure from the Site along Holborn Road and Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized through appropriate construction methods. No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure from the Site along Holborn Road and Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quality due to dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized through appropriate construction methods. No long-term net effects. <p>First (Tied)</p>
		Temporary and/or long-term change in groundwater quantity		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. The temporary decrease in groundwater quantity due to dewatering for construction of the Conveyance Infrastructure to the Site along Holborn Road would be minimized by using appropriate construction methods. No long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. No temporary and/or long-term net effects. 	<ul style="list-style-type: none"> No temporary and/or long-term net effects. The temporary decrease in groundwater quantity due to dewatering for construction of the Conveyance Infrastructure to the Site along Holborn Road would be minimized by using appropriate construction methods. <p>No long-term net effects.</p>	<ul style="list-style-type: none"> No temporary and/or long-term net effects. No temporary and/or long-term net effects.

4. Dewatering is expected to be required along Queensville Sideroad during construction of the Conveyance Infrastructure from the Site (common for all alternatives).

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The greater the potential for dewatering during construction, the worse the ranking. 	<p>Conveyance Infrastructure from Site to Outfall⁵</p> <ul style="list-style-type: none"> The temporary decrease in groundwater quantity due to construction dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quantity due to dewatering for construction of the Conveyance Infrastructure from the Site along Holborn Road and Queensville Sideroad from approximately 2nd Concession to the Outfall and would be minimized through appropriate construction methods. No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quantity due to dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quantity due to dewatering for construction of the Conveyance Infrastructure from the Site along Holborn Road and Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in groundwater quantity due to construction dewatering for construction of the Conveyance Infrastructure from the Site along Queensville Sideroad from approximately 2nd Concession to the Outfall would be minimized by using appropriate construction methods. No long-term net effects. <p>First (Tied)</p>
Effect on Groundwater Criterion Ranking				Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)
Effect on surface water	Temporary and/or long-term change in surface water quality ⁶			<p>Site</p> <ul style="list-style-type: none"> The temporary decrease in surface water quality entering Holborn Drain due to increased sediment in surface water runoff during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006).

5. Dewatering is expected to be required along Queensville Sideroad during construction of the Conveyance Infrastructure from the Site (common for all alternatives).

6. All watercourses have similar surface water quality characteristics.

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				<ul style="list-style-type: none"> The long-term decrease in surface water quality entering Holborn Drain due to increased sediment in surface water runoff during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quality) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. 	<ul style="list-style-type: none"> The long-term decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quality) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. <ul style="list-style-type: none"> The temporary decrease in surface water quality at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The long-term decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quality) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. <ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The long-term decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quality) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. <ul style="list-style-type: none"> The temporary decrease in surface water quality at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The long-term decrease in surface water quality entering Ravenshoe/Boag Drain due to increased sediment in surface water runoff during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quality) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. <ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects.

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			<ul style="list-style-type: none"> The lower the number of surface water crossings along the Conveyance Infrastructure to and from the Sites, the better the ranking. <p>Note:</p> <ul style="list-style-type: none"> Site 24, WH1 West and WH2 were ranked the same in terms of surface water quality along the Conveyance Infrastructure to and from the Site because the Ravenshoe/Boag Drain along 2nd Concession is an ephemeral feature with low sensitivity. The Ravenshoe/Boag Drain along Holborn Road and Leslie Street is an 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Queensville Drain⁷ due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Queensville Drain and 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street), due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of Queensville Drain and 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease in surface water quality at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain due to increased sediment in surface water runoff during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <p>First (Tied)</p>

7. Queensville Drain begins north of Mount Albert Road and west of Leslie Street, flowing northwest to the Queensville Sideroad drainage ditch, which follows Queensville Sideroad towards the East Holland River.

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			ephemeral feature with moderate sensitivity.					
		Temporary and/or long-term change in surface water quantity		<p>Site</p> <ul style="list-style-type: none"> The temporary increase in surface water quantity entering Holborn Drain⁸ due to increase in overland flow during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). The long-term increase in surface water quantity entering the Holborn Drain due to increase in overland flow during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quantity) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity entering Ravenshoe/Boag Drain due to an increase in overland flow during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). The long-term increase in surface water quantity entering Ravenshoe/Boag Drain due to an increase in overland flow during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater quantity management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quantity) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow to during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). The long-term increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quantity) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow to during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). The long-term increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.50SA and 4.8-DP with respect to surface water quantity) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow to during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). The long-term increase in surface water quantity entering Ravenshoe/Boag Drain due to increase in overland flow during operation of the Water Reclamation Centre would be mitigated by implementing a stormwater management plan in accordance with the Lake Simcoe Protection Plan (i.e., 4.5-SA and 4.8-DP with respect to surface water quantity) and Lake Simcoe Region Conservation Authority's Watershed Development Policies and a spill response plan.

8. The Holborn Drain and the Ravenshoe/Boag Drain both have similar intermittent surface water flow regimes.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in surface water quantity at 1 crossing of the Queensville Drain due to increase in overland flow during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). <ul style="list-style-type: none"> No long-term net effects. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street), due to an increased in overland flow during construction of the Conveyance Infrastructure to the Site would be mitigated by implement an erosion and sediment control plan consistent with policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <ul style="list-style-type: none"> The temporary increase in surface water quantity entering 1 crossing of the Queensville Drain and 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) due to increase in overland flow during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession due to increase in overland flow during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <ul style="list-style-type: none"> The temporary increase in surface water quantity at 1 crossing of the Ravenshoe/Boag Drain and 1 crossing of the Queensville Drain due to increase in overland flow during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) due to increase in overland flow during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <ul style="list-style-type: none"> The temporary increase in surface water quantity entering 1 crossing of the Queensville Drain and 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street),due to increase in overland flow during construction of the Conveyance Infrastructure from the Site would be mitigated by developing and implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. 	<ul style="list-style-type: none"> The temporary increase in surface water quantity at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession due to increase in overland flow during construction of the Conveyance Infrastructure to the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects. <ul style="list-style-type: none"> The temporary increase in surface water quantity at 1 crossing of the Ravenshoe/Boag Drain and 1 crossing of the Queensville Drain due to increase in overland flow during construction of the Conveyance Infrastructure from the Site would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). No long-term net effects.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The lower the number of surface water crossings along the Conveyance Infrastructure to and from the Sites, the better the ranking. <p>Note:</p> <ul style="list-style-type: none"> Site 24, WH1 West and WH2 were ranked the same in terms of surface water quantity along the Conveyance Infrastructure to and from the Sites because the Ravenshoe/Boag Drain along 2nd Concession is an ephemeral feature with low sensitivity. The Ravenshoe/Boag Drain along Holborn Road and Leslie Street is an ephemeral feature with moderate sensitivity. 	First (Tied)	Fourth (Tied)	First (Tied)	Fourth (Tied)	First (Tied)
Effect on Surface Water Criterion Ranking				Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)	Least Preferred (Tied)	Most Preferred (Tied)
Effect on aquatic habitat or functions	Area (m ²) of temporary or permanent loss of aquatic features or categorical loss of functions by type – including Provincially Significant Wetland, Locally Significant Wetland, watercourses by sensitivity type, and others ⁹		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary net effects. The permanent loss of approximately 324.5 m of ephemeral head water drainage feature of Ravenshoe/ Boag Drain during operation of the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies¹⁰. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary net effects. The permanent loss of approximately 234.2 m of ephemeral head water drainage feature of Ravenshoe/ Boag Drain during operation of the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. 	

9. Provincially Significant Wetlands, Locally Significant Wetlands and permanent and intermittent watercourses were avoided during the generation of the long list of potential alternative Water Reclamation Centre Sites (Generation of the Long List of Potential Alternative Water Reclamation Centre Sites, CRA et al., April 2012).

10. The quality of aquatic habitat in each stream on Site 30 and Site WH1 East is relatively the same.

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				<p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 1 crossing of the Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best Management Practices, limiting removal of riparian vegetation, stabilizing the 	<ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street), during construction of the Conveyance Infrastructure to the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction best Management Practices based on consultations with review agencies, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and 1 crossing of the Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, 	<ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession during construction of the Conveyance Infrastructure to the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best Management Practices based on consultations with review agencies, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession and 1 crossing of Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best 	<ul style="list-style-type: none"> The temporary loss in aquatic habitat and function at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street), during construction of the Conveyance Infrastructure to the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best Management Practices based on consultation with review agencies, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and 1 crossing of the Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, 	<ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession during construction of the Conveyance Infrastructure to the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best Management Practices based on consultations with review agencies, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <ul style="list-style-type: none"> The temporary loss of aquatic habitat and function at 1 crossing of Ravenshoe/Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated and compensated for (as required) by undertaking construction outside of the relevant fish spawning timing window, implementing appropriate construction Best

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> banks and implementing a restoration plan. No permanent net effects. The shorter the stream length, the lower amount of aquatic habitat potentially affected, the better the ranking. The lower the number of surface water crossings along the Conveyance Infrastructure to and from the Sites, the better the ranking. <p>Note:</p> <ul style="list-style-type: none"> The Ravenshoe/Boag Drain for the Conveyance Infrastructure along 2nd Concession has a low aquatic habitat potential and a low sensitivity classification. The Ravenshoe/Boag Drain for the Conveyance Infrastructure along Holborn Road and Leslie Street has a low aquatic habitat potential and a moderate sensitivity classification. 	<ul style="list-style-type: none"> banks and implementing a restoration plan. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> implementing appropriate Best Management Practices, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <p>Fifth</p>	<ul style="list-style-type: none"> Management Practices, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> implementing appropriate construction Best Management Practices, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <p>Fourth</p>	<ul style="list-style-type: none"> Management Practices, limiting removal of riparian vegetation, stabilizing the banks and implementing a restoration plan. No permanent net effects. <p>First (Tied)</p>

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
Effect on Aquatic Habitat or Functions Criterion Ranking				Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)	Moderately Preferred	Most Preferred (Tied)
Effect on stream geomorphology	Change in geomorphic form/ function/ stability in affected channels			<p>Site</p> <ul style="list-style-type: none"> The temporary change to channel function of Holborn Drain due to removal of swales during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006) and by replicating drainage density of swales on Site layout in conjunction with stormwater management. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel function of the Ravenshoe/ Boag Drain due to removal of swales during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006) and by replicating drainage density of swales on Site layout in conjunction with stormwater management. The permanent reduction to channel function of 324.5 m of the ephemeral Ravenshoe/ Boag Drain and change to downstream channel stability due to loss of 324.5 m of the Ravenshoe/ Boag Drain during operation of the Water Reclamation Centre would be compensated for by developing a relocation plan for the portion of the drain using natural channel design principles based on consultation with review agencies. 	<ul style="list-style-type: none"> The temporary change to channel function of the Ravenshoe/Boag Drain due to removal of swales during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006) and by replicating drainage density of swales on Site layout in conjunction with stormwater management. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel function of the Ravenshoe/ Boag Drain due to removal of swales during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006) and by replicating drainage density of swales on Site layout in conjunction with stormwater management. The permanent reduction to channel function of 234.2 m of the ephemeral Ravenshoe/ Boag Drain and change to downstream channel stability due to loss of 234.2 m of the Ravenshoe/ Boag Drain during operation of the Water Reclamation Centre would be compensated for by developing a relocation plan for the portion of the drain using natural channel design principles based on consultation with review agencies. 	<ul style="list-style-type: none"> The temporary change to channel function of the Ravenshoe/Boag Drain due to removal of swales during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006) and by replicating drainage density of swales on Site layout in conjunction with stormwater management. No long-term net effects.

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				<p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or long-term net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary change to channel form at 1 crossing of the Queensville Drain due to channel disturbance and vegetation removal during construction of the Conveyance Infrastructure from the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel form and function at 4 crossings of the Ravenshoe/ Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) during construction of the Conveyance Infrastructure to the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. The temporary change to channel form and function at 4 crossings of the Ravenshoe/ Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and 1 crossing of the Queensville Sideroad during construction of the Conveyance Infrastructure from the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel form and function at 1 crossing of the Ravenshoe/ Boag Drain along 2nd Concession due to channel disturbance and vegetation removal during construction of the Conveyance Infrastructure to the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. The temporary change to channel form and function at 1 crossing of the Ravenshoe/ Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain due to channel disturbance and vegetation removal during construction of the Conveyance Infrastructure from the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel form and function at 4 crossings of the Ravenshoe/ Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) during construction of the Conveyance Infrastructure to the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. The temporary change to channel form and function at 4 crossings of the Ravenshoe/ Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and 1 crossing of the Queensville Drain during construction of the Conveyance Infrastructure from the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. 	<ul style="list-style-type: none"> The temporary change to channel form and function at 1 crossing of the Ravenshoe/ Boag Drain along 2nd Concession due to channel disturbance and vegetation removal during construction of the Conveyance Infrastructure to the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects. The temporary change to channel form and function at 1 crossing of the Ravenshoe/ Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain due to channel disturbance and vegetation removal during construction of the Conveyance Infrastructure from the Site would be mitigated by limiting vegetation removal and implementing post construction restoration. No long-term net effects.

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			<ul style="list-style-type: none"> The shorter the stream length potentially affected, the lower potential effects on stream geomorphology, the better the ranking. The lower the number of surface water crossings along the Conveyance Infrastructure to and from the Sites, the better the ranking. Note: <ul style="list-style-type: none"> Sites 24, WH1 West and WH2 were ranked the same in terms of effects on stream geomorphology along the Conveyance Infrastructure to and from the Site because the Ravenshoe/Boag Drain along 2nd Concession is an ephemeral feature with low sensitivity. The Ravenshoe/Boag Drain along Holborn Road and Leslie Street is an ephemeral feature with moderate sensitivity. 	First (Tied)	Fifth	First (Tied)	Fourth	First (Tied)
Effect on Stream Geomorphology Criterion Ranking				Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)	Moderately Preferred	Most Preferred (Tied)
	Effect on aquatic species including Species at Risk (species of special concern, threatened, endangered) and species of local concern, native and invasive species	Number and type of aquatic species potentially temporarily or permanently ¹²		Site <ul style="list-style-type: none"> The temporary disturbance¹³ to aquatic species in the Holborn Drain due to decrease in surface water quality during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary disturbance to aquatic species in the Ravenshoe/Boag Drain due to decrease in surface water quality during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> The temporary disturbance to aquatic species in the Ravenshoe/Boag Drain due to decrease in surface water quality during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006). 	<ul style="list-style-type: none"> No temporary and/or permanent net effects¹⁴. 	<ul style="list-style-type: none"> The temporary disturbance to aquatic species in the Ravenshoe/Boag Drain due to decrease in surface water quality during construction of the Water Reclamation Centre would be mitigated by implementing an erosion and sediment control plan consistent with the policies outlined in the Erosion and Sediment Control Guidelines for Urban Construction (2006).

11. Aquatic species include species of local concern, native and invasive species.

12. Refer to the Natural Environment Baseline Conditions Report (CRA et al., April 2013) for detailed information on aquatic species.

13. Disturbance refers to construction-related activities (i.e., noise, vibration, dust etc.).

14. The portion of Ravenshoe/Boag Drain on Site WH1 East is ephemeral in nature.

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				<ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary net effects to aquatic species. <ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. The permanent disturbance to aquatic species in the ephemeral Ravenshoe/Boag Drain due to loss of approximately 324.5 m of Ravenshoe/Boag Drain would be compensated for (as required) and relocated based on consultations with review agencies. The temporary disturbance to aquatic species at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) during construction of the Conveyance Infrastructure to the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. The temporary disturbance to aquatic species at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession due to decrease in surface water during construction of the Conveyance Infrastructure to the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. The temporary disturbance to aquatic species at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. The temporary disturbance to aquatic species at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession due to decrease in surface water during construction of the Conveyance Infrastructure to the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species.

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			<ul style="list-style-type: none"> The shorter the stream length potentially affected, the lower potential effects on aquatic species, the better the ranking. The lower the number of surface water crossings along the Conveyance Infrastructure to and from the Sites, the better the ranking. <p>Note:</p> <ul style="list-style-type: none"> The Ravenshoe/Boag Drain for the Conveyance Infrastructure along 2nd Concession has a low aquatic habitat potential and a low sensitivity classification. 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disturbance to aquatic species at 1 crossing of the Queensville Drain due to decrease in surface water quality during construction of the Conveyance Infrastructure from the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary disturbance to aquatic species at 4 crossings of Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and at 1 crossing of the Queensville Drain due to decrease in surface water quality during construction of the Conveyance Infrastructure from the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>Fifth</p>	<ul style="list-style-type: none"> The temporary disturbance to aquatic species at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession and at 1 crossing of the Queensville Drain due to decrease in surface water quality during construction of the Conveyance Infrastructure from the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary disturbance to aquatic species at 4 crossings of the Ravenshoe/Boag Drain (1 along 2nd Concession and 3 along Holborn Road and Leslie Street) and 1 crossing of the Queensville Drain due to the decrease in surface water quality during construction of the Conveyance Infrastructure from the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>Fourth</p>	<ul style="list-style-type: none"> The temporary disturbance to aquatic species at 1 crossing of the Ravenshoe/Boag Drain along 2nd Concession and 1 crossing of the Queensville Drain due to the decrease in surface water quality during construction of the Conveyance Infrastructure from the Site would be mitigated by undertaking construction outside of the relevant fish spawning timing window and implementing appropriate construction Best Management Practices. No temporary and/or permanent net effects to aquatic Species at Risk. No permanent net effects to aquatic species. <p>First (Tied)</p>

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			<ul style="list-style-type: none"> The Ravenshoe/Boag Drain for the Conveyance Infrastructure along Holborn Road and Leslie Street has a low aquatic habitat potential and a moderate sensitivity classification. 					
Effect on Aquatic Species Criterion Ranking				Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)	Moderately Preferred	Most Preferred (Tied)
Effect on groundwater recharge and discharge areas in relation to aquatic/ wetland habitat	Area (m ²) of temporary or permanent loss of recharge and discharge areas ¹⁵		<ul style="list-style-type: none"> The net effects are the same for all alternatives. 	<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary reduction in stream baseflow in the Queensville Drain due to dewatering during construction of Conveyance Infrastructure from the Site would be mitigated by using appropriate construction methods and directing the dewatering discharge to the Queensville Drain. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary reduction in stream baseflow in the Queensville Drain due to dewatering during construction of Conveyance Infrastructure from the Site would be mitigated by using appropriate construction methods and directing the dewatering discharge to the Queensville Drain. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary reduction in stream baseflow in the Queensville Drain due to dewatering during construction of Conveyance Infrastructure from the Site would be mitigated by using appropriate construction methods and directing the dewatering discharge to the Queensville Drain. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary reduction in stream baseflow in the Queensville Drain due to dewatering during construction of Conveyance Infrastructure from the Site would be mitigated by using appropriate construction methods and directing the dewatering discharge to the Queensville Drain. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary reduction in stream baseflow in the Queensville Drain due to dewatering during construction of Conveyance Infrastructure from the Site would be mitigated by using appropriate construction methods and directing the dewatering discharge to the Queensville Drain. No permanent net effects. <p>First (Tied)</p>

15. There are no significant groundwater recharge or discharge areas on any of the Sites.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)
	Effect on Groundwater Recharge and Discharge areas in Relation to Aquatic/Wetland Habitat Criterion Ranking							
	Effect on terrestrial habitat or functions	Area (m ²) of temporary and/or permanent loss of natural heritage features by type – including Environmentally Sensitive Areas (ESAs) and Areas of National and Scientific Interest (ANSIs), wildlife corridors, and others		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. The permanent loss of 0.32 ha of deciduous hedgerow communities for the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies. The permanent loss of up to 21.5 ha of habitat potentially suitable for Bobolink (Provincially and Nationally Threatened) and Savannah Sparrow bird species for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. The permanent loss of 1 barn containing Chimney Swift nesting habitat for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. The permanent loss of 1.2 ha of deciduous hedgerow communities and 2.5 ha of swamp, cultural meadow and meadow marsh habitat for the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies. The permanent loss of up to 24.8 ha of habitat potentially suitable for Barn Swallow and Bobolink (Provincially and Nationally Threatened) and Cliff Swallow bird species for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. The permanent loss of 1 building providing habitat for the Barn Swallow bird species for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. The permanent loss of 0.3 ha of shallow dug pond for the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. The permanent loss of 0.45 ha of deciduous hedgerow communities and 0.72 ha of cultural thicket and cultural meadow communities for the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies. The permanent loss of up to 21.5 ha of habitat potentially suitable for Bobolink (Provincially and Nationally Threatened) bird species for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. The permanent loss of 1 barn containing Chimney Swift nesting habitat for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. The permanent loss of 1.5 ha of deciduous hedgerow communities for the Water Reclamation Centre would be compensated for by implementing a habitat restoration plan based on consultation with review agencies. The permanent loss of up to 44.4 ha of habitat potentially suitable for Bobolink (Provincially and Nationally Threatened) and Savannah Sparrow bird species during operation of the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. The permanent loss of 0.60 ha of deciduous hedgerow communities for the Water Reclamation Centre would be compensated for (as required) by implementing a habitat restoration plan based on consultations with review agencies. The permanent loss of up to 21.5 ha of habitat potentially suitable for Bobolink and Eastern Meadowlark (Provincially and Nationally Threatened) and Savannah Sparrow bird species for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. The permanent loss of 1 barn containing Barn Swallow nesting habitat for the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)	
					review agencies.				
				<p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. No temporary and/or permanent net effects to terrestrial habitat and function. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects to ESAs, ANSIs or wildlife corridors. No temporary and/or permanent net effects to terrestrial habitat and function. 					
			<ul style="list-style-type: none"> The lower the area and quality of terrestrial habitat lost, the better the ranking. 	First	Fifth	Third	Fourth	Second	
				Most Preferred	Least Preferred	Moderately Preferred	Less Preferred	More Preferred	
	Effect on Terrestrial Habitat or Functions Criterion Ranking								
	Effect on terrestrial species including Species at Risk (species of special concern, threatened, endangered) species of local concern, native and invasive species, and area-sensitive species	Number and type of terrestrial species ¹⁶ potentially affected temporarily ¹⁷ and/or permanently ¹⁷		<p>Site</p> <ul style="list-style-type: none"> The temporary disturbance¹⁸ to terrestrial species within the Natural Heritage System Core area to the west of the Site from adjacent construction activities during construction of the Water Reclamation Centre would be minimized by maintaining a minimum 30 m buffer¹⁹ and using 	<ul style="list-style-type: none"> The temporary disturbance to terrestrial species within the Natural Heritage System in the central portion of the Site during construction of the Water Reclamation Centre would be minimized by maintaining a minimum 30 m buffer and using appropriate construction 	<ul style="list-style-type: none"> The temporary disturbance to terrestrial species within the Natural Heritage System Core area to the east of the Site from adjacent construction activities during construction of the Water Reclamation Centre would be minimized by maintaining a minimum 30 m buffer and using 	<ul style="list-style-type: none"> The temporary disturbance to terrestrial species within the Natural Heritage System Core area to the east and west of the Site from adjacent construction activities during construction of the Water Reclamation Centre would be minimized by maintaining a minimum 30 m buffer and using 	<ul style="list-style-type: none"> The temporary disturbance to terrestrial species within the Natural Heritage System Core area to the east of the Site from adjacent construction activities during construction of the Water Reclamation Centre would be minimized by maintaining a minimum 30 m buffer and using appropriate 	

16. Terrestrial species include species of local concern, native and invasive species and area-sensitive species.

17. Refer to the Natural Environment Baseline Conditions Report (CRA et al., April 2013) for detailed information on terrestrial species.

18. Disturbance refers to construction-related activities (i.e., noise, vibration, dust, etc.).

19. Following the completion of an Environmental Impact Study, a 30 m buffer is the minimum required setback distance from features within the Natural Heritage System Core Area in accordance with the Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (Ministry of Natural Resources).

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				appropriate construction methods.	methods.	appropriate construction methods.	appropriate construction methods.	construction methods.
			<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink and Barn Swallow Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. 	<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink, Barn Swallow, and Cliff Sparrow Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. Permanent disturbance to amphibian species (including Bullfrog) during construction of the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink, Barn Swallow, and Cliff Sparrow Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. Permanent disturbance to amphibian species (including Bullfrog) during construction of the Water Reclamation Centre would be compensated for (as required) based on consultations with review agencies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink and Chimney Swift Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> The permanent disturbance to grassland bird species (including Bobolink and Eastern Meadowlark Species at Risk) during construction of the Water Reclamation Centre (if potential habitat is confirmed) would be mitigated by conducting pre-construction Bobolink habitat surveys in accordance with the Survey Methodology under the <i>Endangered Species Act</i> (2007), ensuring that vegetation clearing occurs outside of the Bobolink breeding season (May 1 to July 31) and using appropriate construction methods. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects.
			<ul style="list-style-type: none"> The number and sensitivity of terrestrial species potentially affected is 	First (Tied)	Fifth	First (Tied)	First (Tied)	First (Tied)

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			relatively the same for all Sites, however, amphibian habitat is present on Site 30, therefore the worse the ranking.					
Effect on Terrestrial Species, Including Species at Risk Criterion Ranking				Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)
	Effect on groundwater recharge and discharge areas in relation to terrestrial habitat	Area (m ²) of temporary and/or permanent loss of recharge and discharge areas	<ul style="list-style-type: none"> The net effects are the same for all alternatives. 	Site <ul style="list-style-type: none"> No temporary and/or permanent net effects. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No temporary and/or permanent net effects. Conveyance Infrastructure from Site to Outfall <ul style="list-style-type: none"> No temporary and/or permanent net effects. First (Tied)	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. No temporary and/or permanent net effects. First (Tied)	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. No temporary and/or permanent net effects. First (Tied)	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. No temporary and/or permanent net effects. First (Tied)	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. No temporary and/or permanent net effects. First (Tied)
Effect on Groundwater Recharge and Discharge Areas in Relation to Terrestrial Habitat Criterion Ranking				Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)
Natural Environment Category Ranking & Rationale:				Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)	Moderately Preferred	Most Preferred (Tied)
<ul style="list-style-type: none"> + Denotes an advantage for an alternative Site relative to other Sites - Denotes a disadvantage for an alternative Site relative to other Sites 				<p>The Site is Most Preferred from a Natural Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + No watercourses on the Site + Temporary change to aquatic habitat at the lowest number of watercourse crossings (1 crossing) along the Conveyance Infrastructure routes + Loss of the smallest area of low quality deciduous hedgerow communities (0.3 ha) + Removal of the smallest area of potentially suitable habitat for Bobolink and Savannah Sparrow (19.0 ha) 	<p>The Site is Least Preferred from a Natural Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Permanent loss of an ephemeral watercourse on the Site - Temporary change to aquatic habitat at the highest number of watercourse crossings along the Conveyance Infrastructure routes (5 crossings) - Loss of second largest area of low quality deciduous hedgerow communities (1.2 ha) - Removal of the second largest area of potentially suitable habitat for Bobolink, Barn Swallow and Cliff Swallow (approximately 25 ha) and loss of moderate quality swamp, cultural meadow and meadow 	<p>The Site is Most Preferred from a Natural Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + No watercourses on the Site + Temporary change to aquatic habitat at the second lowest number of watercourse crossings (2 crossings) along the Conveyance Infrastructure routes + Loss of the second smallest area of low quality deciduous hedgerow communities (0.5 ha) and low quality thicket/ meadow communities (0.7 ha) + Removal of the second smallest area of potentially suitable habitat for Bobolink (22.0 ha) <p>Notwithstanding this, the Site</p>	<p>The Site is Moderately Preferred from a Natural Environment Category perspective compared to the other Sites because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Permanent loss of an ephemeral watercourse on the Site - Temporary change to aquatic habitat at the highest number of watercourse crossings along the Conveyance Infrastructure routes (5 crossings) - Loss of the largest area of low quality deciduous hedgerow communities (1.5 ha) - Removal of the largest area of potentially suitable habitat for Bobolink and Savannah Sparrow (44.0 ha) 	<p>The Site is Most Preferred from a Natural Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + No watercourses on the Site + Temporary change to aquatic habitat at the second lowest number of watercourse crossings (2 crossings) along the Conveyance Infrastructure routes + Loss of the third smallest area of low quality deciduous hedgerow communities (0.6 ha) + Removal of the second smallest area of potentially suitable habitat for Bobolink, Savannah Sparrow and Eastern Meadowlark (22.0 ha) <p>Notwithstanding this, the Site</p>

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				<p>Notwithstanding this, the Site has the following disadvantage:</p> <ul style="list-style-type: none"> - Loss of 1 barn providing nesting Barn Swallow habitat 	<ul style="list-style-type: none"> - marsh communities (approximately 2.5 ha) - Loss of 1 building providing nesting Barn Swallow habitat - Loss of a shallow dug pond, estimated at 0.3 ha, providing amphibian habitat (including bullfrogs) 	<p>has the following disadvantage:</p> <ul style="list-style-type: none"> - Loss of 1 barn providing nesting Chimney Swift habitat 	<p>Notwithstanding this, the Site has the following advantage:</p> <ul style="list-style-type: none"> + No loss of barns or buildings containing nesting bird habitat 	<p>has the following disadvantage:</p> <ul style="list-style-type: none"> - Loss of 1 barn providing nesting Barn Swallow habitat
Built Environment	Effect on agricultural operations and capital investment related to agriculture	Approximate area (ha) of active agricultural operations ²⁰ affected		<p>Site</p> <ul style="list-style-type: none"> ▪ The permanent loss of 31.6 ha of active agricultural operations (specialty crop) for the Water Reclamation Centre would be compensated for (as required) at fair value in accordance with York Region's policies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>Second (Tied)</p>	<ul style="list-style-type: none"> ▪ The permanent loss of 43.9 ha of active agricultural lands on Site (common field crop - soybeans) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>Fifth</p>	<ul style="list-style-type: none"> ▪ The permanent loss of 31.4 ha of active agricultural operations (common field crops - 8.5 ha of corn and 22.9 ha of soybeans) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>Second (Tied)</p>	<ul style="list-style-type: none"> ▪ The permanent loss of 21.3 ha of active agricultural operations (common field crop – soybean) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>First</p>	<ul style="list-style-type: none"> ▪ The permanent loss of 30.0 ha of active agricultural operations (common field crop - soybean) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <ul style="list-style-type: none"> ▪ No temporary and/or permanent net effects. <p>Second (Tied)</p>
		Extent of disruption of active agricultural operations such as:		<ul style="list-style-type: none"> • Fragmentation of agricultural fields • Disturbance to artificial drainage systems and agricultural drains • Removal and/or disturbance of farm fences, entrances and 	<p>Site</p> <ul style="list-style-type: none"> ▪ The temporary disruption of farm equipment travel routes during construction of the Water Reclamation Centre would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> ▪ The temporary disruption of farm equipment travel routes during construction of the Water Reclamation Centre would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> ▪ The temporary disruption of farm equipment travel routes during construction of the Water Reclamation Centre would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> ▪ The temporary disruption of farm equipment travel routes during construction of the Water Reclamation Centre would be minimized by implementing a traffic management plan and providing temporary accesses, as required.

²⁰ Active agricultural land removed refers to the area being ploughed (i.e., excludes barns, buildings, etc.).

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
		<p>paddocks</p> <ul style="list-style-type: none"> Disruption of agricultural-related businesses Disruption of normal external haul routes for farm machinery movements 		<ul style="list-style-type: none"> The permanent agricultural field fragmentation due to the construction and operation of the Water Reclamation Centre would be minimized through Site design. 	<ul style="list-style-type: none"> The permanent agricultural field fragmentation due to the construction and operation of the Water Reclamation Centre would be minimized through Site design. 	<ul style="list-style-type: none"> The permanent agricultural field fragmentation due to the construction and operation of the Water Reclamation Centre would be minimized through Site design. 	<ul style="list-style-type: none"> The permanent agricultural field fragmentation due to the construction and operation of the Water Reclamation Centre would be minimized through Site design. 	<ul style="list-style-type: none"> The permanent agricultural field fragmentation due to the construction and operation of the Water Reclamation Centre would be minimized through Site design.
				<ul style="list-style-type: none"> The permanent loss of 1 agricultural business (farm) during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. The permanent loss of 1 retired agricultural facility during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary disruption to 1 retired agricultural facility access during construction of the Conveyance Infrastructure to the Site adjacent to 2nd Concession south of Queensville Sideroad would be mitigated by implementing a traffic management plan and providing a temporary access, as required. 	<ul style="list-style-type: none"> The permanent loss of 1 agricultural business (farm) during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. The permanent loss of 1 agricultural facility (horses) during construction and operation of the proposed Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> The temporary disruption to approximately 9 agricultural facility accesses during construction of the Conveyance Infrastructure to the Site (3 retired facilities, 1 hobby horse farm, 1 greenhouse and 1 unknown facility adjacent to 2nd Concession, 1 mushroom farm adjacent to Holborn Road and 2 retired facilities adjacent to Leslie Street) would be minimized by implementing a traffic management plan and providing temporary 	<ul style="list-style-type: none"> The permanent loss of 1 agricultural business (farm) during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> The temporary disruption to approximately 5 agricultural facility accesses during construction of the Conveyance Infrastructure to the Site (2 retired facilities, 2 hobby horse farms and 1 unknown facility adjacent to 2nd Concession) would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> The permanent loss of 1 agricultural business (farm) during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> The temporary disruption to approximately 9 agricultural facilities accesses during construction of the Conveyance Infrastructure to the Site (3 retired facilities, 1 hobby horse farm, 1 greenhouse and 1 unknown facility adjacent to 2nd Concession, 1 mushroom farm adjacent to Holborn Road and 2 retired facilities adjacent to Leslie Street) would be minimized by implementing a traffic management plan and providing temporary 	<ul style="list-style-type: none"> The permanent loss of 1 agricultural business (farm) during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> The temporary disruption to 1 retired agricultural facility access during construction of the Conveyance Infrastructure to the Site adjacent to 2nd Concession south of Queensville Sideroad would be mitigated by implementing a traffic management plan and providing a temporary access, as required.

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<ul style="list-style-type: none"> No permanent net effects. 	<ul style="list-style-type: none"> accesses, as required. No permanent net effects. 	<ul style="list-style-type: none"> No permanent net effects. 	<ul style="list-style-type: none"> accesses, as required. No permanent net effects. 	<ul style="list-style-type: none"> No permanent net effects.
				<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption of access to approximately 7 agricultural facility accesses during construction of the Conveyance Infrastructure from the Site (3 retired and 4 hobby horse farms) adjacent to Queensville Sideroad would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> The temporary disruption to approximately 15 agricultural facility accesses (2 retired facilities, 1 hobby horse farm, 1 greenhouse and 1 unknown facility adjacent to 2nd Concession, 1 mushroom farm on Holborn Road and 2 retired facilities on Leslie Street (also included in the Conveyance Infrastructure to the Site) and 3 retired facilities and 4 hobby horse farms adjacent to Queensville Sideroad) would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> The temporary disruption to approximately 11 agricultural facility accesses during construction of the Conveyance Infrastructure from the Site (1 retired facility, 1 hobby horse farm, 1 greenhouse and 1 unknown facility adjacent to 2nd Concession (also included in the Conveyance Infrastructure to the Site) and 3 retired facilities and 4 hobby horse farms adjacent to Queensville Sideroad) would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> The temporary disruption to approximately 15 agricultural facility accesses during construction of the Conveyance Infrastructure from the Site (2 retired facilities, 1 hobby horse farm, 1 greenhouse and 1 unknown facility adjacent to 2nd Concession, 1 mushroom farm on Holborn Road and 2 retired facilities on Leslie Street (also included in the Conveyance Infrastructure to the Site) and 3 retired facilities and 4 hobby horse farms adjacent to Queensville Sideroad) would be minimized by implementing a traffic management plan and providing temporary accesses, as required. 	<ul style="list-style-type: none"> The temporary disruption to approximately 7 agricultural facility accesses during construction of the Conveyance Infrastructure from the Site (3 retired and 4 hobby horse farms) adjacent to Queensville Sideroad would be minimized by implementing a traffic management plan and providing temporary accesses, as required.
			<ul style="list-style-type: none"> No agricultural facilities removed ranked better than removal of active or retired agricultural facilities. Removal of a retired agricultural facility, ranked better than removal of an active agricultural facility. 	<p>Fourth</p>	<p>Fifth</p>	<p>First (Tied)</p>	<p>First (Tied)</p>	<p>First (Tied)</p>
				<p>Less Preferred</p>	<p>Least Preferred</p>	<p>More Preferred (Tied)</p>	<p>Most Preferred</p>	<p>More Preferred (Tied)</p>
				<p>Site</p> <ul style="list-style-type: none"> The permanent displacement of 1 single detached residence during construction and operation 	<ul style="list-style-type: none"> The permanent displacement of 1 single detached residence during construction and operation 	<ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> No net effects.
	Effect on existing residences, businesses, and/or community, institutional, and recreational facilities	Number and type of residences displaced						

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> No displacement of residences ranked better than displacement of residences. The fewer residences displaced, the better the ranking. 	<p>of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies and applicable laws.</p> <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No net effects. <p>Fourth (Tied)</p>	<p>of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies and applicable laws.</p> <ul style="list-style-type: none"> No net effects. No net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p>First (Tied)</p>
		Number and type of residences temporarily or permanently disrupted ²¹		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary disruption to driveway access to approximately 4 single detached residences during construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access, arrangements for waste collection, and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access to approximately 30 single detached residences during the construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access to approximately 10 single detached residences during construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access to approximately 31 single detached residences during construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access to approximately 4 single detached residences during construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects.

21. Disruption to residences has been applied with respect to driveway accesses (including waste collection). Disruption related to odour, noise and vibration are considered in the respective indicators below.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The fewer residential accesses disrupted, the better the ranking however, where the numbers are very similar, to be conservative the same ranking is applied. 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 96 single detached residences (1 residence is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access, arrangements for waste collection, and notifying residents of the alternative arrangements. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 122 single detached residences (27 are also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access, arrangements for waste collection, and notifying residents of the alternative arrangements. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 102 single detached residences (7 are also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access, arrangements for waste collection, and notifying residents of the alternative arrangements. No permanent net effects. <p>Third</p>	<ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 123 residences (28 are also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 96 single detached residences (1 residence is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access, arrangements for waste collection, and notifying residents of the alternative arrangements. No permanent net effects. <p>First (Tied)</p>
		Number and characteristics of businesses displaced ²²	<ul style="list-style-type: none"> The net effects are the same for all alternatives. 	<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>First (Tied)</p>

22. Does not include agricultural businesses Agricultural businesses are included under the evaluation criteria: "Effect on agricultural operations and capital investment related to agriculture".

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
		Number and characteristics of businesses temporarily or permanently disrupted ^{23,24}		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption to driveway access for approximately 9 businesses during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access for 1 business during construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access and access signage, providing arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. The temporary disruption to driveway access for approximately 10 businesses (1 is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary disruption to driveway access for approximately 9 businesses during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to driveway access for 1 business during the construction of the Conveyance Infrastructure to the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. The temporary disruption to driveway access for approximately 10 businesses (1 is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. No temporary and/or permanent net effects. The temporary disruption to driveway access for approximately 9 businesses during construction of the Conveyance Infrastructure from the Site would be minimized by providing temporary driveway access and access signage, arrangements for waste collection and notifying residents of the alternative arrangements. No permanent net effects.

23. Does not include agricultural businesses. Agricultural businesses are included under the evaluation criteria: "Effect on agricultural operations and capital investment related to agriculture".

24. Disruption to businesses has been applied with respect to driveway accesses, which considers customer access, deliveries and waste collection etc. Disruption that relate to odour, noise and vibration are considered in the respective indicators below.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The fewer business accesses disrupted, the better the ranking however, where the numbers are very similar, to be conservative the same ranking is applied. 	First (Tied)	First (Tied)	First (Tied)	First (Tied)	First (Tied)
		Number and characteristics of community, institutional, and recreational facilities displaced	<ul style="list-style-type: none"> No displacement of community, institutional, and recreational facilities ranked better than displacement of community, institutional, and recreational facilities. 	Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure from Site to Outfall <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> No net effects. No net effects. No net effects. 	<ul style="list-style-type: none"> No net effects. No net effects. No net effects. 	<ul style="list-style-type: none"> No net effects. No net effects. No net effects. 	<ul style="list-style-type: none"> The permanent displacement of the Holland Landing Snowmobile Club snowmobile route during construction and operation of the Water Reclamation Centre would be mitigated by relocating the snowmobile route to an appropriate location. No net effects. No net effects.
		Number and characteristics of community, institutional, and recreational facilities temporarily or permanently disrupted		Site <ul style="list-style-type: none"> No temporary and/or permanent net effects. Conveyance Infrastructure to Site <ul style="list-style-type: none"> The temporary disruption to the Holland Landing Snowmobile Club Trail at 1 location during construction of the Conveyance Infrastructure to the Site would be mitigated by providing appropriate temporary detours for snowmobiles. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 2 locations during construction of the Conveyance Infrastructure to the Site would be mitigated by providing appropriate temporary detours for snowmobiles. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 1 location during construction of the Conveyance Infrastructure to the Site would be mitigated by providing appropriate temporary detours for snowmobiles. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 2 locations during construction of the Conveyance Infrastructure to the Site would be mitigated by providing appropriate temporary detours for snowmobiles. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 1 location during construction of the Conveyance Infrastructure to the Site would be mitigated by providing appropriate temporary detours for snowmobiles.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<ul style="list-style-type: none"> No permanent net effects. Conveyance Infrastructure from Site to Outfall The temporary disruption to the Holland Landing Snowmobile Club Trail at 2 locations during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles. The temporary disruption to the Holland Landing Snowmobile Club Trail and multi-use trail²⁵ accessible from Queen's Court during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles and trail users. The temporary disruption to bicycle users during construction of the Conveyance Infrastructure from the Site along Queensville Sideroad (designated within the York Region's Bicycle Lane Designation Network) would be minimized by implementing a traffic management plan, including appropriate detours for bicycle users²⁶. 	<ul style="list-style-type: none"> No permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 3 locations (1 is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles. The temporary disruption to the Holland Landing Snowmobile Club Trail and multi-use trail accessible from Queen's Court during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles and trail users. The temporary disruption to bicycle users during construction of the Conveyance Infrastructure from the Site along Queensville Sideroad (designated within the York Region's Bicycle Lane Designation Network) would be minimized by implementing a traffic management plan, including appropriate detours for bicycle users. 	<ul style="list-style-type: none"> No permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 2 locations during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles. The temporary disruption to the Holland Landing Snowmobile Club Trail and multi-use trail accessible from Queen's Court during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles and trail users. The temporary disruption to bicycle users during construction of the Conveyance Infrastructure from the Site along Queensville Sideroad (designated within the York Region's Bicycle Lane Designation Network) would be minimized by implementing a traffic management plan, including appropriate detours for bicycle users. 	<ul style="list-style-type: none"> No permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 3 locations (1 is also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles. The temporary disruption to the Holland Landing Snowmobile Club Trail and multi-use trail accessible from Queen's Court during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles and trail users. The temporary disruption to bicycle users during construction of the Conveyance Infrastructure from the Site along Queensville Sideroad (designated within the York Region's Bicycle Lane Designation Network) would be minimized by implementing a traffic management plan, including appropriate detours for bicycle users. 	<ul style="list-style-type: none"> No permanent net effects. The temporary disruption to the Holland Landing Snowmobile Club Trail at 2 locations during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles. The temporary disruption to the Holland Landing Snowmobile Club Trail and multi-use trail accessible from Queen's Court during construction of the Conveyance Infrastructure from the Site would be mitigated by providing appropriate temporary detours for snowmobiles and trail users. The temporary disruption to bicycle users during construction of the Conveyance Infrastructure from the Site along Queensville Sideroad (designated within the York Region's Bicycle Lane Designation Network) would be minimized by implementing a traffic management plan, including appropriate detours for bicycle users.

25. Designated in York Region Cycling Map, 2011.

26. Designed as "Paved Shoulder". A paved shoulder is located next to the traveled portion of the roadway and is used to accommodate cyclists on rural roads in York Region. Paved shoulders in the York Region Bicycle Designation Network are for roadways which generally have less than 10,000 daily vehicles and posted speed limits of less than 80 km/h.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> Fewer community, institutional, and recreational facilities accesses disrupted, the better the ranking. The number of community, institutional, and recreational facilities along the Conveyance Infrastructure routes is similar for all five alternative Sites. 	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>
Effect on Existing Residences, Businesses, and/or Community, Institutional, and Recreational Facilities Criterion Ranking				More Preferred (Tied)	Least Preferred	Most Preferred	More Preferred (Tied)	Less Preferred
Effect of vibration on existing buildings	Number of existing buildings affected and extent and duration of adverse effects ²⁷			<p>Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 5 buildings within 250 m of the Site property line during construction of the Water Reclamation Centre would be minimized by implementing Best Management Practices, limiting construction hours, and use of specialized drilling equipment. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 4 buildings adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by implementing Best Management 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 15 buildings within 250 m of the Site property line during construction of the Water Reclamation Centre would be minimized by implementing Best Management Practices, limiting construction hours, and use of specialized drilling equipment. No permanent net effects. <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 31 buildings adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 7 buildings within 250 m of the Site property line during construction of the Water Reclamation Centre would be minimized by implementing Best Management Practices, limiting construction hours, and use of specialized drilling equipment. No permanent net effects. <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 8 buildings adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by implementing Best Management 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 16 buildings within 250 m of the Site of the property line during construction of the Water Reclamation Centre would be minimized by implementing Best Management Practices, limiting construction hours, and use of specialized drilling equipment. No permanent net effects. <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 32 buildings adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 17 buildings within 250 m of the Site property line during construction of the Water Reclamation Centre would be minimized by implementing Best Management Practices, limiting construction hours, and use of specialized drilling equipment. No permanent net effects. <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 4 buildings adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by implementing Best Management

27. Effect will depend on proximity to construction activity, building construction and subsurface soil conditions.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)				
			<ul style="list-style-type: none"> Practices for vibration reduction (i.e. staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 33 buildings (1 adjacent to 2nd Concession which is also included in the Conveyance Infrastructure to Site and 32 buildings adjacent to Queensville Sideroad, Queens Court and Yonge Street) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing Best Management Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. <ul style="list-style-type: none"> The lower the number of buildings within 250 m²⁸ of the Water Reclamation Centre and adjacent²⁹ to the Conveyance Infrastructure routes, the lower the potential future vibration related complaints, 	<ul style="list-style-type: none"> Practices for vibration reduction (i.e. staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 60 buildings (28 adjacent to Leslie Street, Holborn Road, and 2nd Concession which are also included in the Conveyance Infrastructure to the Site and 32 adjacent to Queensville Sideroad and 2nd Concession) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing Best Management Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. 	<ul style="list-style-type: none"> Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment etc.). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 37 buildings (5 adjacent to 2nd Concession which are also included in the Conveyance Infrastructure to the Site and 32 adjacent to Queensville Sideroad) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing Best Management Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment etc.). No permanent net effects. 	<ul style="list-style-type: none"> Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment etc.). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 61 buildings (29 residences on Leslie Street, Holborn Road, and 2nd Concession which are also included in Conveyance Infrastructure to the Site and 32 adjacent to Queensville Sideroad, Queen's Court and Yonge Street) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing Best Management Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. 	<ul style="list-style-type: none"> Practices for vibration reduction (i.e. staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 33 buildings (1 adjacent to 2nd Concession which is also included in Conveyance Infrastructure to the Site and 32 adjacent to Queensville Sideroad, Queens Court and Yonge Street) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing Best Management Practices for vibration reduction (i.e., staged construction, limiting construction hours, use of specialized drilling equipment, etc.). No permanent net effects. 	First	Fifth	Second	Fourth	Third

28. 250 m was considered a suitable experience-based screening distance to identify points-of-reception for potential vibration effects.

29. Adjacent buildings were evaluated for the Conveyance Infrastructure route since the noise effects are construction-related and the equipment is mobile rather than stationary. Potentially affected locations would be those receivers immediately adjacent to the road.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			the better the ranking.					
	Effect of Vibration on Existing Buildings Criterion Ranking			Most Preferred	Least Preferred	More Preferred	Less Preferred	Moderately Preferred
	Effect on property	Number and extent of properties affected and ownership	<ul style="list-style-type: none"> Fewer properties required, the better the ranking. Partial vs. entire property acquisition, the better the ranking. Willing Host owner³⁰, better than unwilling seller, the better the ranking. 	<p>Site</p> <ul style="list-style-type: none"> Property acquisition of 1 entire private property (from an unwilling seller) for the construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Fifth</p>	<ul style="list-style-type: none"> Property acquisition of 1 entire private property the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Fourth</p>	<ul style="list-style-type: none"> Property acquisition of 1 partial private property (from a Willing Host owner) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> Property acquisition of 1 partial private property (from a Willing Host owner) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> Property acquisition of 1 partial private property (from a Willing Host owner) for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>
		Total area of property acquisition required (ha)		<p>Site</p> <ul style="list-style-type: none"> The property acquisition of 39.8 ha required for the construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The property acquisition of 60.4 ha required for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The property acquisition of 36.0 ha required for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The property acquisition of 40.0 ha required for the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The property acquisition of 42.0 ha required for the construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <ul style="list-style-type: none"> No net effects.

30. A Willing Host owner refers to either of the two properties that met the UYSS project requirements in response to the Request for Expression of Interest issued by York Region's Supplies and Services Department in February 2012.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The smaller the total area of property acquisition required, the better the ranking. 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No net effects. <p>Fourth</p>	<ul style="list-style-type: none"> No net effects. <p>Fifth</p>	<ul style="list-style-type: none"> No net effects. <p>First</p>	<ul style="list-style-type: none"> No net effects. <p>Second</p>	<ul style="list-style-type: none"> No net effects. <p>Third</p>
Effect on Effect on Property Criterion Ranking				Least Preferred (Tied)	Less Preferred (Tied)	More Preferred	Most Preferred (Tied)	Most Preferred (Tied)
Effect on existing roadway/infrastructure	Effect on existing utility infrastructure	Number of roadways and utility type affected and extent and duration of adverse effects ^{31,32}		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary disruption to approximately 850 m of roadway for approximately 6 months (approximately 1 construction season) as a result of 1 full road closure along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 500 m of roadway for approximately 2 months as a result of lane closures along 1 roadway, 2nd Concession between Queensville Sideroad and the pumping station (Regional Arterial Road) during construction of the Conveyance Infrastructure would be minimized by implementing a traffic management plan and providing temporary access, as required. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to approximately 1,350 m of roadway for approximately 6 months (1 construction season) as a result of 1 full road closure along 2nd Concession (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 2,000 m of roadway for approximately 9 months (1.5 construction seasons) as a result of full road closures along Holborn Road (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to approximately 1,350 m of roadway for approximately 6 months (1 construction season) as a result of 2 full road closures along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 500 m of roadway for approximately 2 months as a result of land closures along 1 roadway, 2nd Concession between Queensville Sideroad and the pumping station (Regional Arterial Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to approximately 1,400 m of roadway for approximately 6 months (1 construction season) as a result of a full road closure along 2nd Concession (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 2,000 m of roadway for approximately 9 months (1.5 construction seasons) as a result of full road closures along Holborn Road (Town Rural Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. The temporary disruption to approximately 650 m of roadway for approximately 9 months (1.5 construction seasons) as a result of 2 full road closures along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road) during construction of the Conveyance Infrastructure to the Site would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 500 m of roadway for approximately 2 months as a result of land closures along 1 roadway, 2nd Concession between Queensville Sideroad and the pumping station (Regional Arterial Road), during construction of the Conveyance Infrastructure to the Site would be minimized by implementing a traffic management plan and providing temporary access, as required.

31. Distances are accurate within 50 m.

32. Assumes construction associated with the Conveyance Infrastructure would occur on roadway for entire frontage of property.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<ul style="list-style-type: none"> No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption to approximately 850 m of roadway for approximately 6 months (1 construction season) as a result of 1 full road closure along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road), (also included in the Conveyance Infrastructure to the Site), during construction of the 	<ul style="list-style-type: none"> The temporary disruption to approximately 2,000 m of roadway for approximately 3 months as a result of lane closures along 1 roadway, Leslie Street (Regional Arterial Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to approximately 500 m of roadway for approximately 2 months as a result of lane closures along 1 roadway, 2nd Concession between Queensville Sideroad and the pumping station (Regional Arterial Road), during construction of the Conveyance Infrastructure to the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 5,350 m of roadway along 2nd Concession, Holborn Road and Leslie Street (also included in the Conveyance Infrastructure to the Site) during construction of the Conveyance Infrastructure from the Site would be minimized by implementing a traffic management plan and providing temporary 	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 1,350 m of roadway for approximately 6 months (1 construction season) as a result of 1 full road closure along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road), (also included in Conveyance Infrastructure to the Site), during construction of the 	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 5,400 m of roadway for during construction of the Conveyance Infrastructure from the Site (also included in the Conveyance Infrastructure to the Site) would be minimized by implementing a traffic management plan and providing temporary access, as required. 	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 650 m of roadway for approximately 9 months (1.5 construction seasons) as a result of 2 full road closures along 2nd Concession between the Site and Queensville Sideroad (Town Rural Road), (also included in Conveyance Infrastructure to the Site), during construction of the

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The shorter the length of roadways affected, the better the ranking. 	<p>Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required.</p> <ul style="list-style-type: none"> The temporary disruption to approximately 2,400 m of roadway for approximately 12 months (2 construction seasons) as a result of lane closures along 1 roadway, Queensville Sideroad (Regional Arterial Road), during construction of the Conveyance Infrastructure from the Site would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to 3 roads (Yonge Street (Town Rural Road), Morgans Road (Town Rural Road) and Queens Court (Town Local Road)), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p style="text-align: center;">Second</p>	<p>access, as required.</p> <ul style="list-style-type: none"> The temporary disruption to approximately 2,400 m of roadway for approximately 11 months (2 construction seasons) as a result of lane closures along Queensville Sideroad (Regional Arterial Road), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to 3 roads (Yonge Street (Town Rural Road), Morgans Road (Town Rural Road) and Queens Court (Town Local Road)), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p style="text-align: center;">Fourth (Tied)</p>	<p>Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required.</p> <ul style="list-style-type: none"> The temporary disruption to approximately 2,400 m of roadway for approximately 11 months (2 construction seasons) as a result of lane closures along 1 road, Queensville Sideroad (Regional Arterial Road), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to 3 roads (Yonge Street (Town Rural Road), Morgans Road (Town Rural Road) and Queens Court (Town Local Road)), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p style="text-align: center;">Third</p>	<p>Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required.</p> <ul style="list-style-type: none"> The temporary disruption to approximately 2,400 m of roadway for approximately 11 months (2 construction seasons) as a result of lane closures along 1 roadway, Queensville Sideroad (Regional Arterial Road), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to 3 roads (Yonge Street (Town Rural Road), Morgans Road (Town Rural Road) and Queens Court (Town Local Road)), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p style="text-align: center;">Fourth (Tied)</p>	<p>Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required.</p> <ul style="list-style-type: none"> The temporary disruption to approximately 2,400 m of roadway for approximately 12 months (2 construction seasons) as a result of lane closures along 1 road, Queensville Sideroad (Regional Arterial Road), during construction of the Conveyance Infrastructure from the Site would be minimized by implementing a traffic management plan and providing temporary access, as required. The temporary disruption to 3 roads (Yonge Street (Town Rural Road), Morgans Road (Town Rural Road) and Queens Court (Town Local Road)), during construction of the Conveyance Infrastructure from the Site, would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p style="text-align: center;">First</p>

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
		Number and type of utilities affected and extent and duration of adverse effects		<p>Site</p> <ul style="list-style-type: none"> The temporary disruption to local utilities located on the Site during construction of the Water Reclamation Centre would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (Temporary interruption of service during relocation is anticipated). No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure to the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary interruption of services during relocation is anticipated). No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure from the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary 	<ul style="list-style-type: none"> The temporary disruption to local utilities located on the Site during construction of the Water Reclamation Centre would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (Temporary interruption of service during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 6 utilities during construction of the Conveyance Infrastructure to the Site, would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary interruption of services during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 7 utilities during construction of the Conveyance Infrastructure from the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary 	<ul style="list-style-type: none"> The temporary disruption of local utilities located on the Site during construction of the Water Reclamation Centre would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (Temporary interruption of service during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure to the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary interruption of services during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure from the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary 	<ul style="list-style-type: none"> The temporary disruption of utilities located on the Site during construction of the Water Reclamation Centre would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (Temporary interruption of service during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 6 utilities during construction of the Conveyance Infrastructure to the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary interruption of services during location is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 7 utilities during construction of the Conveyance Infrastructure from the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary 	<ul style="list-style-type: none"> The temporary disruption of utilities located on the Site during construction of the Water Reclamation Centre would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (Temporary interruption of service during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure to the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary interruption of services during relocation is anticipated). No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to approximately 4 utilities during construction of the Conveyance Infrastructure from the Site would be minimized by locating utilities based on consultation with utility providers and, if confirmed on-site, relocating if required (temporary

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				interruption of services during relocation is anticipated).	interruption of services during relocation is anticipated).	interruption of services during relocation is anticipated).	interruption of services during relocation is anticipated).	interruption of services during relocation is anticipated).
			<ul style="list-style-type: none"> The lower the number of utilities affected, the better the ranking. 	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <p>First (Tied)</p>
Effect on Existing Roadway/Utility Infrastructure Criterion Ranking				More Preferred (Tied)	Least Preferred (Tied)	Less Preferred	Least Preferred (Tied)	Most Preferred (Tied)
Effect on traffic	Temporary and/or permanent disruption to traffic operations			<p>Site</p> <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Water Reclamation Centre as a result of increased number of construction vehicles accessing the Site would be minimized by implementing a traffic management plan and provision of temporary access, as required. Truck and vehicle trips generated during operation of the Water Reclamation Centre would have a nominal effect on the operation of the 2nd Concession/Queensville Sideroad and Leslie Street/Queensville Sideroad intersections continuing to operate within existing capabilities³³. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure to the Site as a result of construction vehicles and road closures would be 	<ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Water Reclamation Centre as a result of increased number of construction vehicles accessing the Site would be minimized by implementing a traffic management plan and provision of temporary access, as required. Truck and vehicle trips generated during operation of the Water Reclamation Centre would have a nominal effect on the operation of the 2nd Concession/Queensville Sideroad and Leslie Street/Queensville Sideroad intersections continuing to operate within existing capabilities. The temporary disruption to traffic operations during construction of the Conveyance Infrastructure to the Site as a result of construction vehicles and road closures would be 	<ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Water Reclamation Centre as a result of increased number of construction vehicles accessing the Site would be minimized implementing a traffic management plan and provision of temporary access, as required. Truck and vehicle trips generated during operation of the Water Reclamation Centre would have a nominal effect on the operation of the 2nd Concession/Queensville Sideroad and Leslie Street/Queensville Sideroad intersections continuing to operate within existing capabilities. The temporary disruption to traffic operations during construction of the Conveyance Infrastructure to the Site as a result of construction vehicles and road closures would be 	<ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Water Reclamation Centre as a result of increased number of construction vehicles accessing the Site would be minimized implementing a traffic management plan and provision of temporary access, as required. The truck and vehicle trips generated during operation of the Water Reclamation Centre would have a nominal effect on the operation of the 2nd Concession/Queensville Sideroad and Leslie Street/Queensville Sideroad intersections continuing to operate within existing capabilities. The temporary disruption to traffic operations during construction of the Conveyance Infrastructure to the Site as a result of construction vehicles and road closures would be 	<ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Water Reclamation Centre as a result of increased number of construction vehicles accessing the Site would be minimized by measures such as implementing a traffic management plan and provision of temporary access, as required. Truck and vehicle trips generated during operation of the Water Reclamation Centre would have a nominal effect on the operation of the 2nd Concession/Queensville Sideroad and Leslie Street/Queensville Sideroad intersections continuing to operate within existing capabilities. The temporary disruption to traffic operations during construction of the Conveyance Infrastructure to the Site as a result of construction vehicles and road closures would be

³³ The intersection of Leslie Street/Queensville Sideroad shows a minor increase in delay, which is primarily attributed to the future background growth in traffic as a result of the Highway 404 Extension and improved road connectivity rather than as a result of traffic from the Site.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				minimized by implementing a traffic management plan and providing temporary access, as required.	minimized by implementing a traffic management plan and providing temporary access, as required.	minimized by implementing a traffic management plan and providing temporary access, as required.	minimized by implementing a traffic management plan and providing temporary access, as required.	minimized by implementing a traffic management plan and providing temporary access, as required.
				<ul style="list-style-type: none"> No permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No permanent net effects. <ul style="list-style-type: none"> The temporary disruption to traffic operations during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by implementing a traffic management plan and providing temporary access, as required. No permanent net effects. <p>First (Tied)</p>
			<ul style="list-style-type: none"> The net effects are the same for all alternatives. 					
Effect on Traffic Criterion Ranking				Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)
Built Environment Category Ranking & Rationale:				Moderately Preferred	Least Preferred	Most Preferred	Less Preferred	More Preferred
<ul style="list-style-type: none"> + Denotes an advantage for an alternative Site relative to other Sites - Denotes a disadvantage for an alternative Site relative to other Sites 				<p>The Site is Moderately Preferred from a Built Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary disruption to the lowest number of accesses (approximately 99 residences and 8 agricultural facilities) adjacent to the Conveyance Infrastructure routes + Temporary increase in vibration at the lowest number of buildings within 250 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure routes (approximately 41) 	<p>The Site is Least Preferred from a Built Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Temporary disruption to the second highest number of residential accesses (approximately 125) and highest number of agricultural facilities (approximately 16) adjacent to the Conveyance Infrastructure routes - Temporary increase in the second highest number of buildings within 250 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure 	<p>The Site is Most Preferred from a Built Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary disruption to the second lowest number of accesses (approximately 105 residences and 11 agricultural facilities) adjacent to the Conveyance Infrastructure routes + Temporary increase in vibration levels at the second lowest number of buildings within 250 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure 	<p>The Site is Less Preferred from a Built Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Temporary disruption to the highest number of accesses (approximately 126 residences and 16 agricultural facilities) adjacent to the Conveyance Infrastructure routes - Temporary increase in vibration levels at the highest number of buildings within 250 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure routes 	<p>The Site is More Preferred from a Built Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary disruption to the lowest number of accesses (approximately 99 residences and 8 agricultural facilities) adjacent to the Conveyance Infrastructure routes + Temporary increase in vibration levels at third lowest number of buildings within 250 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure routes (approximately 53)

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<ul style="list-style-type: none"> + Temporary disruption to the second shortest length of roadway along the Conveyance Infrastructure routes (3.7 km) <p>Notwithstanding this, the Site has the following disadvantages:</p> <ul style="list-style-type: none"> - Loss of the second largest area of active agricultural operations (32.0 ha) and loss of 1 retired agricultural facility - Permanent displacement of 1 residence - Acquisition of 1 entire private property with the second smallest property area (40 ha) from an unwilling seller 	<ul style="list-style-type: none"> routes (approximately 78) - Temporary disruption to the second longest length of roadway along the Conveyance Infrastructure routes (8.1 km) - Loss of the largest area of active agricultural operations (44.0 ha) and loss of 1 horse farm - Permanent displacement of 1 residence - Acquisition of 1 entire private property with the largest property area (60.0 ha) 	<ul style="list-style-type: none"> routes (approximately 47) + Temporary disruption to the third shortest length of roadway along the Conveyance Infrastructure routes (4.2 km) + Loss of the third smallest area of active agricultural operations (31.0 ha) and no loss of agricultural facilities + No displacement of residences + Acquisition of a portion of 1 vacant private property with the smallest property area (36.0 ha) from a Willing Host owner 	<ul style="list-style-type: none"> (approximately 80) - Temporary disruption to the longest length of roadway along the Conveyance Infrastructure routes (8.3 km) <p>Notwithstanding this, the Site has the following advantages:</p> <ul style="list-style-type: none"> + Loss of the smallest area of active agricultural operations (21.0 ha) and no agricultural facilities + No displacement of residences + Acquisition of a portion of 1 vacant private property with the second smallest property area (40.0 ha) from a Willing Host owner 	<ul style="list-style-type: none"> + Temporary disruption to the shortest length of roadway along the Conveyance Infrastructure routes (3.6 km) + Loss of the second smallest area of active agricultural operations (30.0 ha) and no loss of agricultural facilities + No displacement of residences + Acquisition of a portion of 1 vacant private property with the third smallest property area (42.0 ha) from a Willing Host owner <p>Notwithstanding this, the Site has the following disadvantage:</p> <ul style="list-style-type: none"> - Permanent displacement of the Holland Landing Snowmobile Club snowmobile route
Social Environment	Effect on wells	Number of wells and type affected, extent and duration and nature (water quality/quantity) of adverse effects ³⁴		<p>Site</p> <ul style="list-style-type: none"> ▪ No temporary or permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> ▪ The temporary decrease to groundwater quantity and/or quality in approximately 7 private groundwater wells along 2nd Concession due to dewatering during construction of the Conveyance Infrastructure to the Site would be minimized by using appropriate construction methods and, if required, affected residents would be 	<ul style="list-style-type: none"> ▪ No temporary or permanent net effects. <ul style="list-style-type: none"> ▪ The temporary decrease to groundwater quantity and quality in approximately 56 private groundwater wells identified along 2nd Concession, Holborn Road and Leslie Street due to dewatering during construction of the Conveyance Infrastructure to the Site would be minimized by using appropriate construction methods and, if required, 	<ul style="list-style-type: none"> ▪ No temporary or permanent net effects. <ul style="list-style-type: none"> ▪ The temporary decrease to groundwater quantity and quality in approximately 13 private groundwater wells identified along 2nd Concession due to dewatering during construction of the Conveyance Infrastructure to the Site would be minimized by using appropriate construction methods and, if required, affected residents would be 	<ul style="list-style-type: none"> ▪ No temporary or permanent net effects. <ul style="list-style-type: none"> ▪ The temporary decrease to groundwater quantity and/or quality in approximately 56 private groundwater wells identified along 2nd Concession, Holborn Road and Leslie Street due to dewatering during construction of the Conveyance Infrastructure to the Site would be minimized by using appropriate construction methods and, if required, 	<ul style="list-style-type: none"> ▪ No temporary or permanent net effects. <ul style="list-style-type: none"> ▪ The temporary decrease to groundwater quantity and quality in approximately 7 private groundwater wells identified along 2nd Concession due to construction dewatering during construction of the Conveyance Infrastructure to the Site would be minimized by using appropriate construction methods and, if required, affected residents would be

34. The number of wells was estimated from a search of the Ministry of the Environment Water Well Database and includes the on-Site well(s).

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<p>provided with a temporary potable water source.</p> <ul style="list-style-type: none"> No permanent net effects. 	<p>affected residents would be provided with a temporary potable water source.</p> <ul style="list-style-type: none"> No permanent net effects. 	<p>provided with a temporary potable water source.</p> <ul style="list-style-type: none"> No permanent net effects. 	<p>affected residents would be provided with a temporary potable water source.</p> <ul style="list-style-type: none"> No permanent net effects. 	<p>provided with a temporary potable water source.</p> <ul style="list-style-type: none"> No permanent net effects.
			<p>The lower the number of wells along the Conveyance Infrastructure routes, the better the ranking.</p>	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary decrease to groundwater quantity and quality in approximately 95 private groundwater wells identified along Queensville Sideroad due to dewatering during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by using appropriate construction methods and, if required, affected residents would be provided with a temporary potable water source. No permanent net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease to groundwater quantity and quality in approximately 95 private groundwater wells identified along Queensville Sideroad due to dewatering during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by using appropriate construction methods and, if required, affected residents would be provided with a temporary potable water source. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease to groundwater quantity and quality in approximately 95 private groundwater wells identified along Queensville Sideroad due to dewatering during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by using appropriate construction methods and, if required, affected residents would be provided with a temporary potable water source. No permanent net effects. <p>Third</p>	<ul style="list-style-type: none"> The temporary decrease to groundwater quantity and quality in approximately 95 private groundwater wells identified along Queensville Sideroad due to dewatering during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by using appropriate construction methods and, if required, affected residents would be provided with a temporary potable water source. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary decrease to groundwater quantity and quality in approximately 95 private groundwater wells identified along Queensville Sideroad due to dewatering during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by using appropriate construction methods and, if required, affected residents would be provided with a temporary potable water source. No permanent net effects. <p>First (Tied)</p>
Effect on Wells Criterion Ranking				Most Preferred (Tied)	Least Preferred (Tied)	Moderately Preferred	Least Preferred (Tied)	Most Preferred (Tied)
Effect of noise on sensitive receptors ³⁵	Number of sensitive receptors affected and extent and duration of adverse effects			<p>Site</p> <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 20 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment noise limits, the Town of East Gwillimbury's Noise By-Law (2004-80), implementing construction related Best Management Practices for noise reduction, 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 50 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment noise limits, the Town of East Gwillimbury's Noise By-Law (2004-80), implementing construction related Best Management Practices for noise reduction, 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 10 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 50 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment noise limits, the Town of East Gwillimbury's Noise By-Law (2004-80), implementing construction Best Management Practices 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 21 sensitive receptors within 500 m of Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices

35. As defined by the Ministry of the Environment (MOE) in NPC-205, a sensitive "point of reception" means any point on the premises of a person where sound or vibration originating from other than those premises is received. For the purpose of approval of new sources of noise, including verifying compliance with Section 9 of the Environmental Protection Act, the point of reception may be located on any of the following existing or zoned for future use premises: permanent or seasonal residences, hotels/motels, nursing/retirement homes, rental residences, hospitals, camp grounds, and noise sensitive buildings such as schools and places of worship.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				constructing temporary noise barriers (as required), and implementing a complaint resolution procedure.	constructing temporary noise barriers (as required), and implementing a complaint resolution procedure.	for noise reduction, constructing temporary noise barriers (as required), and implementing a complaint resolution procedure.	for noise reduction, constructing temporary noise barriers (as required), and implementing a complaint resolution procedure.	for noise reduction, constructing temporary noise barriers (as required), and implementing a complaint resolution procedure.
				<ul style="list-style-type: none"> The permanent increase in uncontrolled noise levels from uncontrolled emission sources (up to 61 dBA during the day) at approximately 20 sensitive receptors within 500 m of the Site property line during operation of the Water Reclamation Centre would be mitigated by implementing noise abatement measures achieving compliance with MOE NPC-232 limits (i.e. 45 dBA during the day), and implementing a complaint resolution procedure. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 4 sensitive receptors adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. 	<ul style="list-style-type: none"> The permanent increase in uncontrolled noise levels from uncontrolled emission sources (up to 72 dBA during the day) at approximately 50 sensitive receptors within 500 m of the Site property line during operation of the Water Reclamation Centre would be mitigated by implementing noise abatement measures achieving compliance with MOE NPC-232 limits (i.e. 45 dBA during the day), and implementing a complaint resolution procedure. <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 31 sensitive receptors adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-Law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint 	<ul style="list-style-type: none"> The permanent increase in uncontrolled noise levels from uncontrolled emission sources (up to 63 dBA during the day) at approximately 10 sensitive receptors within 500 m of the Site property line during operation of the Water Reclamation Centre would be mitigated by implementing noise abatement measures, achieving compliance with MOE NPC-232 limits (i.e. 45 dBA during the day) and implementing a complaint resolution procedure. <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 8 sensitive receptors adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. 	<ul style="list-style-type: none"> The permanent increase in uncontrolled noise levels from uncontrolled emission sources (up to 69 dBA during the day) at approximately 50 sensitive receptors within 500 m of the Site property line during operation of the Water Reclamation Centre would be mitigated by implementing noise abatement measures, achieving compliance with MOE NPC-232 limits (i.e. 45 dBA during the day), and implementing a complaint resolution procedure. <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 32 sensitive receptors adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint 	<ul style="list-style-type: none"> The permanent increase in uncontrolled noise levels from uncontrolled emission sources (up to 66 dBA during the day) at approximately 21 sensitive receptors within 500 m of the Site property line during operation of the Water Reclamation Centre would be mitigated by implementing noise abatement measures, achieving compliance with MOE NPC-232 limits (i.e. 45 dBA during the day) and implementing a complaint resolution procedure. <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 4 sensitive receptors adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<ul style="list-style-type: none"> No permanent net effects. 	<ul style="list-style-type: none"> resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> No permanent net effects. 	<ul style="list-style-type: none"> resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> No permanent net effects.
			<ul style="list-style-type: none"> The lower the number of sensitive receptors within 500 m³⁶ of the Water Reclamation Centre, the lower the potential future noise related complaints, the better the ranking. 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in noise levels at approximately 38 sensitive receptors (1 adjacent to 2nd Concession which is also included in Conveyance Infrastructure to the Site and approximately 37 adjacent to Queensville Sideroad) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 65 sensitive receptors (28 adjacent to Leslie Street, Holborn Road, and 2nd Concession which are also included in the Conveyance Infrastructure to the Site and approximately 37 adjacent to Queensville Sideroad and 2nd Concession) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-Law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 42 sensitive receptors (5 located adjacent to 2nd Concession which are also included in the Conveyance Infrastructure to the Site and approximately 37 adjacent to Queensville Sideroad) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 66 sensitive receptors (29 adjacent to Leslie Street, Holborn Road, and 2nd Concession which are also included in Conveyance Infrastructure to the Site and approximately 37 adjacent to Queensville Sideroad during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to the Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in noise levels at approximately 38 sensitive receptors (1 adjacent to 2nd Concession which is also included in Conveyance Infrastructure to the Site and approximately 37 adjacent to Queensville Sideroad, Queens Court and Yonge Street) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of Environment noise limits, the Town of East Gwillimbury's Noise By-law (2004-80), implementing construction Best Management Practices for noise reduction, and implementing a complaint resolution procedure. No permanent net effects.
				Second (Tied)	Fourth (Tied)	First	Fourth (Tied)	Second (Tied)

36. A 500 metre separation distance is a typical zone of influence used to identify the nearest off-Site sensitive points-of-reception subject of environmental noise impact assessment from adjacent industry. The 500 m distance is specifically referenced in the Noise Screening for Section 9 Applications form developed by the Ministry of the Environment. The sensitive receptors 500 m of the Water Reclamation Centre are also included in the number of sensitive receptors adjacent to the Conveyance Infrastructure routes where there is an overlap.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				Moderately Preferred (Tied)	Least Preferred (Tied)	Most Preferred	Least Preferred (Tied)	Moderately Preferred (Tied)
	Effect of Noise on Sensitive Receptors Criterion Ranking							
	Effect of perceptible vibration levels on sensitive receptors	Number of sensitive receptors ³⁷ affected and extent and duration of adverse effects		<p>Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 21 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 4 sensitive receptors adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 50 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 31 sensitive receptors adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 10 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 8 sensitive receptors adjacent³⁸ to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 50 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 32 sensitive receptors adjacent to Leslie Street, Holborn Road, and 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. 	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 21 sensitive receptors within 500 m of the Site property line during construction of the Water Reclamation Centre would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 4 sensitive receptors adjacent to 2nd Concession during construction of the Conveyance Infrastructure to the Site would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects.

37. Sensitive receptors from a vibration perspective include permanent or seasonal residences, hotels/motels, nursing/retirement homes, rental residences, hospitals, camp grounds, and vibration sensitive buildings.

38. Adjacent buildings were evaluated for the Conveyance Infrastructure route since vibration effects are construction-related and the equipment is mobile rather than stationary. Potentially affected locations would be those receivers immediately adjacent to the road.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The lower the number of sensitive receptors within 500 m³⁹ of the proposed Water Reclamation Centre, the lower the potential future vibration related complaints, the better the ranking. 	<p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 38 sensitive receptors adjacent to Queensville Sideroad during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Second (Tied)</p>	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 65 sensitive receptors (28 adjacent to Leslie Street, Holborn Road and 2nd Concession which are also included in the Conveyance Infrastructure to the Site and 37 adjacent to Queensville Sideroad and 2nd Concession) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 42 sensitive receptors (5 located adjacent to 2nd Concession which are also included in the Conveyance Infrastructure to the Site and 37 adjacent to Queensville Sideroad) during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>First</p>	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 66 sensitive receptors (29 adjacent to Leslie Street, Holborn Road, and 2nd Concession which are also included in Conveyance Infrastructure to the Site and 37 adjacent to Queensville Sideroad, during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Fourth (Tied)</p>	<ul style="list-style-type: none"> The temporary increase in vibration levels at approximately 38 sensitive receptors (1 adjacent to 2nd Concession which is also included in Conveyance Infrastructure to the Site and 37 adjacent to Queensville Sideroad during construction of the Conveyance Infrastructure from the Site and Outfall would be minimized by adhering to Ministry of the Environment's vibration limits as set out in NPC-207 Publication, implementing Best Management Practices for vibration reduction, and implementing a complaint resolution procedure. No permanent net effects. <p>Second (Tied)</p>
				Moderately Preferred (Tied)	Least Preferred (Tied)	Most Preferred	Least Preferred (Tied)	Moderately Preferred (Tied)
	Effect of odour sensitive receptors from current conditions ⁴⁰	Number of sensitive receptors impacted and extent and duration of impacts		<p>Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> No temporary and/or permanent net effects.

39. A 500 metre separation distance is a typical zone of influence used to identify the nearest off-Site sensitive points-of-reception subject of environmental noise impact assessment from adjacent industry. The 500 m distance is specifically referenced in the Noise Screening for Section 9 Applications form developed by the Ministry of the Environment. The sensitive receptors 500 m of the Water Reclamation Centre are also included in the number of sensitive receptors adjacent to the Conveyance Infrastructure routes where there is an overlap.

40. Sensitive receptors include residences, child care facilities, health care facilities, senior citizens' residence, long-term care facilities, schools, and for this assessment, businesses have been included as well.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			<ul style="list-style-type: none"> The lower the number of sensitive receptors within 250 m⁴¹ of the Water Reclamation Centre, the lower the potential future odour related complaints, the better the ranking. 	<ul style="list-style-type: none"> The permanent increase in uncontrolled odour, during operation of the Water Reclamation Centre at approximately 5 sensitive receptors within 250 m of the Water Reclamation Centre facility footprint, would be mitigated by siting potential odour facilities within an air separation zone in accordance with the Ministry of the Environment Design Guidelines for Sewage Works, 2008 and installing odour control equipment (i.e., biofilter, carbon, etc.). Conveyance Infrastructure to Site No temporary and/or permanent net effects. Conveyance Infrastructure from Site to Outfall No temporary and/or permanent net effects. <p style="text-align: center;">First</p>	<ul style="list-style-type: none"> The permanent increase in uncontrolled odour, during operation of the Water Reclamation Centre at approximately 7 sensitive receptors within 250 m of the Water Reclamation Centre facility footprint, would be mitigated by siting potential odour facilities within an air separation zone in accordance with the Ministry of the Environment Design Guidelines for Sewage Works, 2008 and installing odour control equipment (i.e., biofilter, carbon, etc.). No temporary and/or permanent net effects. No temporary and/or permanent net effects. <p style="text-align: center;">Third</p>	<ul style="list-style-type: none"> The permanent increase in uncontrolled odour during operation of the Water Reclamation Centre at approximately 8 sensitive receptors within 250 m of the Water Reclamation Centre facility footprint would be mitigated by siting potential odour facilities within an air separation zone in accordance with the Ministry of the Environment Design Guidelines for Sewage Works, 2008 and installing odour control equipment (i.e., biofilter, carbon, etc.). No temporary and/or permanent net effects. No temporary and/or permanent net effects. <p style="text-align: center;">Fourth (Tied)</p>	<ul style="list-style-type: none"> The permanent increase in uncontrolled odour during operation of the Water Reclamation Centre at approximately 8 sensitive receptors within 250 m of the Water Reclamation Centre facility footprint would be mitigated by siting potential odour facilities within an air separation zone in accordance with the Ministry of the Environment's Design Guidelines for Sewage Works, 2008 and installing odour control equipment (i.e., biofilter, carbon, etc.). No temporary and/or permanent net effects. No temporary and/or permanent net effects. <p style="text-align: center;">Fourth (Tied)</p>	<ul style="list-style-type: none"> The permanent increase in uncontrolled odour during operation of the Water Reclamation Centre at approximately 6 sensitive receptors within 250 m of the Water Reclamation Centre facility footprint would be mitigated by siting potential odour facilities within an air separation zone in accordance with the Ministry of the Environment Design Guidelines for Sewage Works, 2008 and installing odour control equipment (i.e., biofilter, carbon, etc.). No temporary and/or permanent net effects. No temporary and/or permanent net effects. <p style="text-align: center;">Second</p>

⁴¹ Increase in odour based on the potential frequency for exceedance of 1 odour unit (OU). The Site odour controls will be designed with consideration of MOE's odour guidelines. The guidelines recommend less than 1 odour unit (OU), 99.5% of the time at any sensitive receptor. The design is to achieve this as close as possible and within 250 m of the property line). Therefore, if there were any potential off-Site odour effects, it is a reasonable assumption to estimate potentially impacted sensitive receptors within a 250 m distance from the Water Reclamation Centre.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				Most Preferred	Less Preferred	Least Preferred (Tied)	Least Preferred (Tied)	More Preferred
	Effect of Odour on Sensitive Receptors from Current Conditions Criterion Ranking							
	Effect on existing views	Number and type of buildings visually affected and extent of adverse effects within viewing zones (<i>Close-up View Zone (0 m to 500 m); Distant View Zone (500 m to 1,000 m) and 1,000 m +View Zone</i> ⁴²)		<p>Site Close-up View Zone (0 to 500 m)</p> <ul style="list-style-type: none"> Approximately 8 residences/businesses (1 located north of the facility, 2 northeast, 4 south and 1 southwest) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. <p>Distant View Zone (500 m to 1,000 m)</p> <ul style="list-style-type: none"> Approximately 5 residences/businesses (2 located southeast of the facility and 3 south) of the facility would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. 	<ul style="list-style-type: none"> Approximately 16 residences/businesses (9 located northwest, 1 west and 6 southwest of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. Approximately 14 residences/businesses (9 located northwest, 3 southwest and 2 north of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. 	<ul style="list-style-type: none"> Approximately 9 residences/businesses (3 located northwest of the facility and 6 southwest) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. Approximately 5 residences/businesses (2 located north, 1 northwest and 2 located southeast of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. 	<ul style="list-style-type: none"> Approximately 9 residences/businesses (3 located northwest, 3 southeast and 3 south of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. Approximately 10 residences/businesses (7 located north, 2 northeast and 1 northwest of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. 	<ul style="list-style-type: none"> Approximately 15 residences/businesses (4 located northwest of the facility, 2 north, 6 southwest and 3 southeast) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. Approximately 4 residences/businesses (2 located west of the facility, and 2 southwest) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility.

42. Within the Close-up View Zone (0 m to 500 m) there is a high likelihood that the facility would be visible to most residences. Within the Distant View Zone (500 m to 1,000 m) from the Site, the visibility of the facility diminishes significantly as the distance increases and because of various obstructions (i.e., vegetation, structures and topography). Beyond 1,000 m, the visibility of the facility is generally limited to residences in high areas with clear lines of Site not obstructed or screened by vegetation, structures and topography. These have been taken into account as required.

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
				<p>1,000 m+ View Zone</p> <ul style="list-style-type: none"> Approximately 15 residences/businesses (7 located southeast of the facility and 8 in the Balmoral Heights subdivision) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> Approximately 3 residences/businesses (2 located north and 1 northwest of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. No temporary and/or permanent net effects. No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> Approximately 1 residence/business located southwest of the facility would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. No temporary and/or permanent net effects. No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> Approximately 3 residences/businesses (1 located northeast and 2 north of the facility) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. No temporary and/or permanent net effects. No temporary and/or permanent net effects. 	<ul style="list-style-type: none"> Approximately 15 residences/businesses (6 located southeast of the facility and 8 in the Balmoral Heights subdivision) would have a partially obstructed and screened view of the Water Reclamation Centre following the implementation of a Landscape Management Plan and through the architectural design of the facility. No temporary and/or permanent net effects. No temporary and/or permanent net effects.
			<ul style="list-style-type: none"> Close-up View Zone takes precedence over Distant View Zone and 1000 m + View Zone. Distant View Zone takes precedence over 1000 m + View Zone. The lower number of residences within the respecting View Zones, the better the ranking. 	Second (Tied)	Fifth	First	Second (Tied)	Fourth
Effect on Existing Views Criterion Ranking				More Preferred (Tied)	Least Preferred	Most Preferred	More Preferred (Tied)	Less Preferred

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
Social Environment Category Ranking & Rationale:				More Preferred	Least Preferred	Most Preferred	Less Preferred	Moderately Preferred
<p>+ Denotes an advantage for an alternative Site relative to other Sites - Denotes a disadvantage for an alternative Site relative to other Sites</p>				<p>The Site is More Preferred from a Social Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary change the lowest number of private groundwater wells (approximately 102) adjacent to Conveyance Infrastructure routes + Lowest number of odour sensitive receptors (approximately 5) within 250 m of the proposed Water Reclamation Centre + Partial visibility of the proposed Water Reclamation Centre from the second lowest number of residences within 500 m and between 500 m to 1000 m (approximately 8 and 5, respectively) and the highest number of residences more than 1000 m away (approximately 15) <p>Notwithstanding this, the Site has the following disadvantage:</p> <ul style="list-style-type: none"> - Temporary increase in noise and vibration levels at the second lowest number of sensitive receptors (approximately 20) within 500 m of the proposed Water Reclamation Centre and the lowest number of sensitive receptors (approximately 41) adjacent to the Conveyance Infrastructure routes 	<p>The Site is Least Preferred from a Social Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Temporary change to approximately 151 private groundwater wells adjacent to Conveyance Infrastructure routes - Second highest number of odour sensitive receptors (approximately 7) within 250 m of the proposed Water Reclamation Centre - Temporary increase in noise and vibration levels at the highest number of sensitive receptors (approximately 50) within 500 m of the proposed Water Reclamation Centre and the second highest number of sensitive receptors (approximately 68) adjacent to the Conveyance Infrastructure routes - Partial visibility of the proposed Water Reclamation Centre from the highest number of residences within 500 m and between 500 m to 1000 m (approximately 16 and 14, respectively) and the second lowest number of residences more than 1000 m away (approximately 3) 	<p>The Site is Most Preferred from a Social Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary change to the second lowest number of private groundwater wells (approximately 108) adjacent to Conveyance Infrastructure routes + Temporary increase in noise and vibration levels at the lowest number of sensitive receptors (approximately 10) within 500 m of the proposed Water Reclamation Centre and the second lowest number of sensitive receptors (approximately 45) adjacent to the Conveyance Infrastructure routes + Partial visibility of the proposed Water Reclamation Centre from the third lowest number of residences within 500 m (approximately 9), the second lowest number of residences between 500 m to 1000 m (approximately 5), and the lowest number of residences more than 1000 m away (approximately 1) <p>Notwithstanding this, the Site has the following disadvantage:</p> <ul style="list-style-type: none"> - Highest number of odour sensitive receptors (approximately 8) within 250 m of the proposed Water Reclamation Centre 	<p>The Site is Less Preferred from a Social Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Temporary change to approximately 151 private groundwater wells adjacent to Conveyance Infrastructure routes - Highest number of odour sensitive receptors (approximately 8) within 250 m of the proposed Water Reclamation Centre - Temporary increase in noise and vibration levels at the highest number of sensitive receptors (approximately 50) within 500 m of the proposed Water Reclamation Centre and adjacent to the Conveyance Infrastructure routes (approximately 69) <p>Notwithstanding this, the Site has the following advantage:</p> <ul style="list-style-type: none"> + Partial visibility of the proposed Water Reclamation Centre from the lowest number of residences from within 500 m (approximately 7), the second highest number of residences from between 500 m to 1000 m (approximately 10), and the second lowest number of residences more than 1000 m away (approximately 3) 	<p>The Site is Moderately Preferred from a Social Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + Temporary change the lowest number of private groundwater wells (approximately 102) adjacent to Conveyance Infrastructure routes + Second lowest number of odour sensitive receptors (approximately 6) within 250 m of the proposed Water Reclamation Centre <p>Notwithstanding this, the Site has the following disadvantages:</p> <ul style="list-style-type: none"> - Temporary increase in noise and vibration levels at the third lowest number of sensitive receptors (approximately 21) within 500 m of the proposed Water Reclamation Centre and the lowest number of sensitive receptors (approximately 41) adjacent to the Conveyance Infrastructure routes - Partial visibility of the proposed Water Reclamation Centre from the second highest number of residences from within 500 m (approximately 15), the lowest number of residences from between 500 m to 1000 m (approximately 4), and the highest number of residences more than 1000 m away (approximately 15)

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
Economic Environment	Effect on approved/planned land uses	Number, extent, and type of approved/ planned land uses affected	<ul style="list-style-type: none"> The net effects are the same for all alternatives. 	Site <ul style="list-style-type: none"> No changes required to approved/planned land use designations to accommodate the construction and operation of the Water Reclamation Centre⁴³. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure from Site to Outfall <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> No changes required to approved/planned land use designations to accommodate the construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> No changes required to approved/planned land use designations to accommodate the construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> No changes required to approved/planned land use designations to accommodate the construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> No changes required to approved/planned land use designations to accommodate the construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First (Tied)</p>
	Effect on Approved/Planned Land Uses Criterion Ranking				Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)	Most Preferred (Tied)
	Effect on agricultural soil resources	Approximate area (ha) of Class 1, Class 2 and Class 3 soils removed (priority in that order) ⁴⁴	<ul style="list-style-type: none"> No loss of Class 1 soils, the better the ranking. The lower the area of Class 1 soils removed, the better the ranking. The lower the area of Class 2 and Class 3 soils removed, the better the 	Site <ul style="list-style-type: none"> An estimated 22.3 ha of Class 2 soils and 16.7 ha Class 3 soils (designated as Agricultural (whitebelt)) would be removed during construction and operation of the Water Reclamation Centre. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure from Site to Outfall <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">First</p>	<ul style="list-style-type: none"> An estimated 47.8 ha of Class 1 soils (designated as Agricultural (whitebelt)) would be removed during construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Fifth</p>	<ul style="list-style-type: none"> An estimated 7.5 ha of Class 1 soils and 26.6 ha of Class 2 soils (designated as Agricultural (whitebelt)) would be removed during construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Second</p>	<ul style="list-style-type: none"> An estimated 32.0 ha of Class 1 soils (designated as Agricultural (whitebelt)) would be removed during construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Fourth</p>	<ul style="list-style-type: none"> An estimated 7.8 ha of Class 1 soils and 32.0 ha of Class 2 soils (designated as Agricultural (whitebelt)) would be removed during construction and operation of the Water Reclamation Centre. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Third</p>

43. The Water Reclamation Centre is a permitted use in all land use designations as per Section 4.15 of the 2010 East Gwillimbury Official Plan (Council Approved), and Section 3.5 of the 1997 Town of East Gwillimbury Official Plan (In Effect).

44. In accordance with the Provincial Policy Statement (20052014), Class 1, Class 2 and Class 3 soils have the highest priority for protection, in that order respectively (i.e., Class 1 soil have a higher priority for protection than Class 2 and Class 3 soils and Class 2 soils have a higher priority for protection than Class 3 soils).

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Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
		Approximate area (ha) of Specialty Cropland ⁴⁵ removed, and/or area of agricultural soils disturbed ⁴⁶ , and/or area of active agricultural land ⁴⁷ removed	ranking.	<p>Site</p> <ul style="list-style-type: none"> The permanent removal of up to 31.6 ha of Specialty Cropland during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. An estimated 39.0 ha of agricultural soils would be permanently removed during construction and operation of the Water Reclamation Centre. The permanent removal of 31.6 ha of active agricultural land during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No net effects. <p>First (Tied)</p>	<ul style="list-style-type: none"> No net effects. An estimated 47.8 ha of agricultural soils would be permanently removed during construction and operation of the Water Reclamation Centre. The permanent removal of approximately 43.9 ha of active agricultural land during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>No net effects.</p> <p>Fifth</p>	<ul style="list-style-type: none"> No net effects. An estimated 34.1 ha of agricultural soils would be permanently removed during construction and operation of the Water Reclamation Centre. The permanent removal of approximately 31.4 ha of active agricultural land during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>No net effects.</p> <p>First (Tied)</p>	<ul style="list-style-type: none"> No net effects. An estimated 32.0 ha of agricultural soils would be permanently removed during construction and operation of the Water Reclamation Centre. The permanent removal of approximately 21.3 ha of active agricultural land during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>No net effects.</p> <p>First (Tied)</p>	<ul style="list-style-type: none"> No net effects. An estimated 39.8 ha of agricultural soils would be permanently removed during construction and operation of the Water Reclamation Centre. The permanent removal of approximately 30.0 ha of active agricultural land during construction and operation of the Water Reclamation Centre would be compensated for (as required) at fair market value in accordance with York Region's policies. <p>No net effects.</p> <p>First (Tied)</p>

45. Specialty Cropland refers to a farmer choosing to grow a specialty crop in an undesignated Specialty Cropland area, recognizing that it could change from year to year depending on the farmer's choice. Therefore, having a specialty crop on Site does not affect the ranking of the alternatives.

46. Area of agricultural soils disturbed refers to all Canada Land Inventory Classifications (Classes 1 through 7). Note: The number includes the area of soil Classes 1, 2, 3 which is also included in the indicator above).

47. Active agricultural land removed refers to the area being ploughed (i.e., excludes barns, buildings etc.).

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Effect on Agricultural Soil Resources Criterion Ranking				Most Preferred	Least Preferred	More Preferred	Less Preferred	Moderately Preferred
Economic Environment Category Ranking & Rationale:				Most Preferred The Site is Most Preferred from an Economic Environment Category perspective compared to the other Sites, because it results in no loss of Class 1 soils.	Least Preferred The Site is Least Preferred from an Economic Environment Category perspective compared to the other Sites, because it results in loss of the largest area of Class 1 soils (48.0 ha).	More Preferred The Site is More Preferred from an Economic Environment Category perspective compared to the other Sites, because it results in loss of the smallest area of Class 1 soils (7.5 ha).	Less Preferred The Site is Less Preferred from an Economic Environment Category perspective compared to the other Sites, because it results in loss of the second largest area of Class 1 soils (32.0).	Moderately Preferred The Site is Moderately Preferred from an Economic Environment Category perspective compared to the other Sites, because it results in loss of the second smallest area of Class 1 soils (8.0 ha).
Cultural Environment	Effects on known or potential significant archaeological resources	Number and type of potentially significant, known archaeological Sites affected.	<ul style="list-style-type: none"> The net effects are the same for all alternatives. 	Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure from Site to Outfall <ul style="list-style-type: none"> No net effects. First (Tied)	<ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. First (Tied)	<ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. First (Tied)	<ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. First (Tied)	<ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. <ul style="list-style-type: none"> No net effects. First (Tied)
		Area (ha) of archaeological potential (i.e., lands with potential for the presence of significant archaeological resources) affected.		<ul style="list-style-type: none"> The disturbance to 35.0 ha with archaeological potential during construction of the Water Reclamation Centre would be minimized and appropriate mitigation measures would be identified if required in the Stage 2 Archaeological Assessment and, if warranted, during the Stage 3 or Stage 4 Archaeological Assessments. No net effects. Conveyance Infrastructure to Site <ul style="list-style-type: none"> No net effects. Conveyance Infrastructure from Site to Outfall	<ul style="list-style-type: none"> The disturbance to 41.0 ha with archaeological potential during construction of the Water Reclamation Centre would be minimized and appropriate mitigation measures would be identified if required in the Stage 2 Archaeological Assessment and, if warranted, during the Stage 3 or Stage 4 Archaeological Assessments. No net effects. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The disturbance to 27.0 ha with archaeological potential during construction of the Water Reclamation Centre would be minimized and appropriate mitigation measures would be identified if required in the Stage 2 Archaeological Assessment and, if warranted, during the Stage 3 or Stage 4 Archaeological Assessments. No net effects. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The disturbance to 30.0 ha with archaeological potential during construction of the Water Reclamation Centre would be minimized and appropriate mitigation measures would be identified if required in the Stage 2 Archaeological Assessment and, if warranted, during the Stage 3 or Stage 4 Archaeological Assessments. No net effects. <ul style="list-style-type: none"> No net effects. 	<ul style="list-style-type: none"> The disturbance to 38.0 ha with archaeological potential during construction of the Water Reclamation Centre would be minimized and appropriate mitigation measures would be identified if required in the Stage 2 Archaeological Assessment and, if warranted, during the Stage 3 or Stage 4 Archaeological Assessments. No net effects. <ul style="list-style-type: none"> No net effects.

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				▪ No net effects.	▪ No net effects.	▪ No net effects.	▪ No net effects.	▪ No net effects.
			▪ The smaller the area with archaeological potential, the lower the potential for presence of significant archaeological resources, the better the ranking.	Third	Fifth	First	Second	Fourth
Effects on Known or Potential Significant Archaeological Resources Criterion Ranking				Moderately Preferred	Least Preferred	Most Preferred	More Preferred	Less Preferred
Effects on built heritage resources and cultural heritage landscapes.	Number and type of built heritage resources and cultural heritage landscapes displaced or disrupted.			Site <ul style="list-style-type: none"> Displacement of 1 cultural heritage resource (an evolved farm complex with late nineteenth century buildings⁴⁸) during construction of the Water Reclamation Centre would be addressed through a Site specific heritage to develop appropriate mitigation measures prior to resource removal (e.g., relocation, partial retention, adaptive re-use, commemoration, salvage, and/or documentation). 	<ul style="list-style-type: none"> Displacement of 1 cultural heritage resource (a nineteenth century farm complex⁴⁹) during construction of the Water Reclamation Centre would be addressed through a Site specific heritage evaluation to develop appropriate mitigation measures prior to resource removal (e.g. relocation, partial retention, adaptive re-use, commemoration, salvage, and/or documentation). 	<ul style="list-style-type: none"> No displacement of cultural heritage resources. Disruption to 2 cultural heritage resources (remnant nineteenth-century farm complexes⁵¹) during construction of the Water Reclamation Centre would be minimized through a Site specific heritage evaluation to develop appropriate mitigation measures (e.g., commemoration, documentation of the 	<ul style="list-style-type: none"> Displacement of 2 cultural heritage resources (remnant nineteenth century farm complexes⁵⁰) during construction of the Water Reclamation Centre would be addressed through a Site specific heritage evaluation that would identify appropriate mitigation measures prior to resource removal (e.g., relocation, partial retention, adaptive re-use, commemoration, salvage, and/or documentation). 	<ul style="list-style-type: none"> No displacement of cultural heritage resources. Disruption to 1 cultural heritage resource (a nineteenth-century farm complex⁵²) during construction of the Water Reclamation Centre would be minimized through a Site specific heritage evaluation to develop appropriate mitigation measures (e.g., commemoration, documentation of the

48. Refer to remnant nineteenth-century farm complex CHR 669 in the Cultural Heritage Baseline Conditions Report (CRA et al., April 2013).

49. Refer to nineteenth century farm complex CHR 65 in the Cultural Heritage Baseline Conditions Report (CRA et al., April 2013).

50. Refer to remnant nineteenth-century farm complexes CHR 75 and CHR 126 in the Cultural Heritage Baseline Conditions Report (CRA et al., April 2013).

51. Refer to remnant nineteenth-century farm complexes CHR 75 and CHR 126 in the Cultural Heritage Baseline Conditions Report (CRA et al., April 2013).

52. Refer to remnant nineteenth-century farm complex CHR 91 in the Cultural Heritage Baseline Conditions Report (CRA et al., April 2013).

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						resource etc.)		resource etc.)
			<ul style="list-style-type: none"> Displacement of cultural heritage resources, worse than disruption of cultural heritage resources. The lower number of cultural heritage resources displaced or disrupted, the better the ranking. Avoidance of displacement or disruption of cultural heritage resources takes precedence over minimizing/compensating for displacement/disruption of cultural heritage resources. 	<p>Conveyance Infrastructure to Site</p> <ul style="list-style-type: none"> No net effects. <p>Conveyance Infrastructure from Site to Outfall</p> <ul style="list-style-type: none"> No net effects. <p style="text-align: center;">Fourth</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p style="text-align: center;">Third</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p style="text-align: center;">First (Tied)</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p style="text-align: center;">Fifth</p>	<ul style="list-style-type: none"> No net effects. No net effects. <p style="text-align: center;">First (Tied)</p>
	Effects on Built Heritage Resources and Cultural Heritage Landscapes			Less Preferred	Moderately Preferred	Most Preferred (Tied)	Least Preferred	Most Preferred (Tied)
	Criterion Ranking			Less Preferred (Tied)	Least Preferred	Most Preferred	Less Preferred (Tied)	More Preferred
Cultural Environment Category Ranking & Rationale:				<p>The Site is Less Preferred from a Cultural Environment Category perspective compared to the other Sites, because it has the following disadvantage:</p> <ul style="list-style-type: none"> - Displacement of 1 cultural heritage resource <p>Notwithstanding this, the Site has the following advantage:</p> <ul style="list-style-type: none"> + Disturbance to the third smallest area with archaeological potential (approximately 35.0 ha) 	<p>The Site is Least Preferred from a Cultural Environment Category perspective compared to the other Sites, because it has the following disadvantages:</p> <ul style="list-style-type: none"> - Displacement of 1 cultural heritage resource - Disturbance to the largest area with archaeological potential (41.0 ha) 	<p>The Site is Most Preferred from a Cultural Environment Category perspective compared to the other Sites, because it has the following advantages:</p> <ul style="list-style-type: none"> + No displacement of cultural heritage resources. + Disturbance to the smallest area with archaeological potential (27.0 ha) 	<p>The Site is Less Preferred from a Cultural Environment Category perspective compared to the other Sites, because it has the following disadvantage:</p> <ul style="list-style-type: none"> - Displacement of 2 cultural heritage resources <p>Notwithstanding this, the Site has the following advantage:</p> <ul style="list-style-type: none"> + Disturbance to the second smallest area with archaeological potential (30.0 ha) 	<p>The Site is More Preferred from a Cultural Environment Category perspective compared to the other Sites, because it has the following advantage:</p> <ul style="list-style-type: none"> + No displacement of cultural heritage resources. - Disruption of 1 cultural heritage resource <p>Notwithstanding this, the Site has the following disadvantage:</p> <ul style="list-style-type: none"> - Disturbance to the second largest area of archaeological

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								potential (38.0 ha)
Financial	50-year Net Present Worth Costs	50-year present net worth costs associated with the capital investment, land acquisition, and operating and maintenance of the infrastructure, systems and equipment ⁵³	<ul style="list-style-type: none"> The lower the overall 50-year present net worth costs, the better the ranking. 	Site/ Conveyance Infrastructure to and from Site <ul style="list-style-type: none"> \$689,710,000 <p style="text-align: center;">Second</p>	<ul style="list-style-type: none"> \$790,930,000 <p style="text-align: center;">Fourth</p>	<ul style="list-style-type: none"> \$703,170,000 <p style="text-align: center;">Third</p>	<ul style="list-style-type: none"> 793,850,000 <p style="text-align: center;">Fifth</p>	<ul style="list-style-type: none"> \$684,190,000 <p style="text-align: center;">First</p>
Financial Category Ranking & Rationale:				More Preferred	Less Preferred	Moderately Preferred	Least Preferred	Most Preferred
				The Site is More Preferred from a Financial Category perspective compared to the other Sites because it has the second lowest 50-year Net Present Worth Costs.	The Site is Less Preferred from a Financial Category perspective compared to the other Sites because it has the second highest 50-year Net Present Worth Costs.	The Site is Moderately Preferred from a Financial Category perspective compared to the other Sites because it has the third lowest 50-year Net Present Worth Costs.	The Site is Least Preferred from a Financial Category perspective compared to the other Sites because it has the highest 50-year Net Present Worth Costs.	The Site is Most Preferred from a Financial Category perspective compared to the other Sites because it has the lowest 50-year Net Present Worth Costs.
OVERALL RECOMMENDATION AND RATIONALE			<ul style="list-style-type: none"> An overall ranking of Recommended was assigned to an alternative having the greatest number of top placed category rankings (e.g., more Most Preferred, More Preferred and Moderately Preferred rankings) among all of the alternatives being considered, thus providing the highest number of advantages and the least number of disadvantages overall. An overall ranking of Not Recommended was assigned to an alternative having fewer number of top placed category rankings (e.g., more Most Preferred, More Preferred and Moderately Preferred). 	<p style="text-align: center;">Not Recommended</p> <ul style="list-style-type: none"> - Higher number of sensitive receptors within 500m of the proposed Water Reclamation Centre temporarily affected - Acquisition of 1 entire private property with an unwilling seller with a higher property area - Displacement of an existing residence - Partial visibility of the proposed Water Reclamation Centre from a higher number of residences more than 1000 m away - Loss of 1 retired agricultural facility - Displacement of a higher number of cultural heritage resources - Disturbance to a larger 	<p style="text-align: center;">Not Recommended</p> <ul style="list-style-type: none"> - Higher Carbon Dioxide (CO2) Equivalent Footprint / year - Permanent loss of an ephemeral watercourse - Temporary change to aquatic habitat at a higher number of watercourse crossings along the Conveyance Infrastructure routes - Loss of moderate quality swamp, cultural meadow and meadow marsh communities - Removal of larger area of potentially suitable habitat for Bobolink, Barn Swallow and Cliff Swallow. Loss of 1 building providing nesting Barn Swallow habitat - Loss of a shallow dug pond 	<p style="text-align: center;">Recommended</p> <ul style="list-style-type: none"> + Lower Carbon Dioxide (CO2) Equivalent Footprint / year + No watercourse crossings on the Site and temporary change to aquatic habitat at a lower number of watercourse crossings than Sites 30 and WH1 East along the Conveyance Infrastructure routes + Loss of a smaller area of low quality deciduous hedgerow communities than Sites 30, WH1 East and WH2 + Removal of a smaller area of potentially suitable habitat for Bobolink than Sites 30 and WH1 East + Lower number of accesses to residences 	<p style="text-align: center;">Not Recommended</p> <ul style="list-style-type: none"> - Higher Carbon Dioxide (CO2) Equivalent Footprint / year - Permanent loss of an ephemeral watercourse and temporary change to aquatic habitat at a higher number of watercourse crossings along the Conveyance Infrastructure routes - Loss of a larger area of low quality deciduous hedgerow communities and removal of higher area of potentially suitable habitat for Bobolink and Savannah Sparrow - Higher number of accesses to residences and agricultural facilities temporarily affected 	<p style="text-align: center;">Not Recommended</p> <ul style="list-style-type: none"> - Higher number of sensitive receptors within 500 m of the proposed Water Reclamation Centre temporarily affected - Acquisition of a portion of 1 vacant private property from a Willing Host owner with larger property area - Partial visibility of the proposed Water Reclamation Centre from a higher number of residences within 500 m and more than 1000 m away - Disturbance to a larger area of archaeological potential - Permanent displacement of the Holland Landing Snowmobile Club

53. Alternative Methods of Carrying Out the Undertaking – Cost Estimates Report (CRA et al., February 2013).

Table P.1: Comparative Evaluation of the Short List of Alternative Water Reclamation Centre Sites

Category	Criteria	Indicator	Rationale for Ranking ¹	Site 24 (including Conveyance Infrastructure ²)	Site 30 (including Conveyance Infrastructure)	Site WH1 West (including Conveyance Infrastructure)	Site WH1 East (including Conveyance Infrastructure)	Site WH2 (including Conveyance Infrastructure)
			rankings) among all of the alternatives being considered, thus providing the higher number of disadvantages and lower number of advantages overall.	<p>area of archaeological potential</p> <ul style="list-style-type: none"> - Higher 50-year Net Present Worth Costs 	<p>providing habitat to bullfrogs</p> <ul style="list-style-type: none"> - Higher number of residential accesses and agricultural facilities temporarily affected - Higher number of sensitive receptors within 500 m of the proposed Water Reclamation Centre temporarily affected - Acquisition of 1 entire private property with higher property area - Displacement of 1 existing residence - Partial visibility of the proposed Water Reclamation Centre from higher number of residences from within 500 m and between 500 m to 1000 m - Temporary disruption to a longer length of roadway along the Conveyance Infrastructure routes - Loss of a larger area of Class 1 soils and loss of 1 agricultural facility - Displacement of a cultural heritage resource - Disturbance to a larger area of archaeological potential - Higher 50-year Net Present Worth Costs 	<p>and agricultural facilities temporarily affected than Sites 30 and WH1 East</p> <ul style="list-style-type: none"> + Lower number of sensitive receptors within 500 m of the proposed Water Reclamation Centre temporarily affected + Acquisition of a portion of 1 vacant private property from a Willing Host owner with a lower property area + No displacement of residences + Partial visibility of the proposed Water Reclamation Centre from lower number of residences between 500 m to 1000 m and more than 1000 m away + Loss of smaller area of Class 1 soils and no loss of agricultural facilities + No displacement of cultural heritage resources + Disturbance to a smaller area of archaeological potential + Lower 50-year Net Present Worth Costs than Sites 30 and WH1 East 	<ul style="list-style-type: none"> - Higher number of sensitive receptors within 500 m of the proposed Water Reclamation Centre temporarily affected - Temporary disruption to a longer length of roadway along the Conveyance Infrastructure routes - Acquisition of a portion of 1 vacant private property from a Willing Host owner with a larger property area - Loss of a larger area of Class 1 soils - Displacement of a higher number of cultural heritage resources - Disturbance to a larger area of archaeological potential - Higher 50-year Net Present Worth Costs 	<p>snowmobile route</p>