

APPENDIX C – WETLAND CHARACTERISTICS AND ECOLOGICAL FUNCTIONS ASSESSMENT FOR RENEWABLE ENERGY PROJECTS

WE02			
<u>Characteristic</u>	<u>Abbrev</u>	<u>Description</u>	<u>Anticipated Impacts</u>
Wetland Size	SIZE1	6.8 ha	No impact on size
Type	WLTYPE	Swamp and marsh	No impact on type
Site Type	SITE	Palustrine & Riverine	No impact on site type
Vegetation Communities	VEG	A marsh largely dominated by narrow leaved emergent gramnoids such as sedges (6.3 ha) and grasses, with a deciduous swamp (0.53 ha) in center of wetland which is dominated by hardwoods. Vegetation is a mix of tall shrubs, low shrubs, herbaceous plants, narrow leaved emergent, broad leaved emergents and robust emergents plus mosses. Over 90% of the wetland consists of narrow leaved emergents. This wetland is adjacent to annual row cropping on the north and south sides with an alvar adjacent to the north central portion..	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay - 3.54 km occurs downstream to southeast of WE02. Another wetland is located 0 m north (downstream) of WE02; 100 m southeast and 717 m north.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 8 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat. The swamp has 7 forms and provide limited habitat for wildlife in the form of shelter.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present from an intermittent water course.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is riverine and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is near 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As a riverine wetland on predominantly mineral soil, in an agricultural area, WE02 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted

Shoreline Erosion Control	SEC	This is not an issue in a riverine wetland - There is no waterbody present and no shoreline with relatively flat terrain within the riverine section of the wetland resulting in little to no erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being completely riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The deciduous swamp and marsh are not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present for parts of the wetland containing water.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE04</u>			
Wetland Size	SIZE1	1.1 ha	No impact on size
Type	WLTYPE	Swamp and marsh	No impact on type
Site Type	SITE	Palustrine & Riverine	No impact on site type
Vegetation Communities	VEG	A marsh largely isolated and dominated by robust emergents such as cattails (0.03 ha), with a deciduous swamp (1.1 ha) bisected by an intermittent watercourse. Vegetation is a mix of tall shrub, low shrub, robust emergent, herbaceous, narrow leaved emergent plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 2.51 km occurs downstream to southeast of WE04. Two other wetlands are located 0 m north (downstream; WE05-2 and upstream; WE02) of WE04 as well as 577 m southeast.	Project will not alter dimensions or proximity

Interspersion	INTER	Moderately low interspersion: The marsh has 6 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat. The swamp has 4 forms and provide limited habitat for wildlife in the form of shelter.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present from an intermittent water course.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is riverine, palustrine and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is near 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As a riverine, palustrine wetland on predominantly mineral soil, in an agricultural area, WE04 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	This is not an issue in a riverine, palustrine wetland - There is no waterbody present and no shoreline with relatively flat terrain within the riverine section of the wetland resulting in little to no erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine and palustrine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The deciduous swamp and marsh are not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE05-2</u>			
Wetland Size	SIZE1	1.6 ha	No impact on size

Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Riverine	No impact on site type
Vegetation Communities	VEG	A marsh largely isolated and dominated by narrow leaved emergents such as Reed canary grass bisected by an intermittent watercourse. Vegetation is a mix of hardwood, conifer, tall shrub, low shrub, robust emergent, herbaceous, narrow leaved emergent, free floating plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.75 km occurs downstream to southeast of WE05-2. Two other wetlands are located 0 m north (downstream; WE05-9 and upstream; WE04) of WE05-2 as well as 60 m east.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 8 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present from an intermittent water course.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is riverine and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is near 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As a riverine wetland on predominantly mineral soil, in an agricultural area, WE05-2 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	This is not an issue in a riverine wetland - There is no waterbody present and no shoreline with relatively flat terrain within the riverine section of the wetland resulting in little to no erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply

Species Rarity	RTOT2	A dead Common snapping turtle was observed within WE05-2 during site investigations, but the observation was outside the 120 m setback.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
WE05-4			
Wetland Size	SIZE1	0.32 ha	No impact on size
Type	WLTYPE	Swamp and open water	No impact on type
Site Type	SITE	Isolated	No impact on site type
Vegetation Communities	VEG	A swamp largely isolated surrounding open water submerged aquatics such as potamogetons. Vegetation is a mix of hardwood, conifer, tall shrub, low shrub, robust emergent, herbaceous, narrow leaved emergent plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.89 km occurs to the east of WE05-4. One wetland is located 270 m northeast, 359 m south of WE05-4 as well as 459 m east.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 7 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion

Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE05-4 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by a woodland and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being isolated. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The swamp is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE05-6</u>			
Wetland Size	SIZE1	5.4 ha	No impact on size
Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Isolated	No impact on site type

Vegetation Communities	VEG	A marsh largely riverine and dominated by robust emergents such as Reed canary grass bisected by a permanent watercourse. Vegetation is a mix of low shrub, robust emergent, herbaceous, narrow leaved emergent, free floating, submerged aquatic plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 978 m occurs to the east of WE05-6. One wetland is located 197 m northeast; WE0515, 197 m to the northwest; WE05-4 and 258 m southwest; WE05-10 of WE05-6.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 7 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is riverine and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As a riverine wetland on predominantly mineral soil, in an agricultural area, WE05-6 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	This is not an issue in a riverine wetland - There is no waterbody present and no shoreline with relatively flat terrain within the riverine section of the wetland resulting in little to no erosion.	No impact
Groundwater Recharge	TGR	This wetland has 1 seep and provides some ground water discharge capacity for the surrounding landscape. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply

Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE05-10</u>			
Wetland Size	SIZE1	0.17 ha	No impact on size
Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Isolated	No impact on site type
Vegetation Communities	VEG	A marsh largely riverine and dominated by narrow leaved emergents such as Reed canary grass. Vegetation is a mix of tall shrub, low shrub, herbaceous, narrow leaved emergent, broad leaved emergent, free floating, submerged aquatic plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.78 km occurs to the east of WE05-10. One wetland is located 256 m northeast; WE05-6, 354 m to the southeast; WE05-16 and 258 m southwest of WE05-10.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 8 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors

Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE05-10 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by an open field and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat are anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE05-15</u>			
Wetland Size	SIZE1	0.22 ha	No impact on size
Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Isolated	No impact on site type

Vegetation Communities	VEG	A marsh largely riverine and dominated by narrow leaved emergents such as Reed canary grass. Vegetation is a mix of hardwood, tall shrub, low shrub, herbaceous, narrow leaved emergent, broad leaved emergent, free floating, submerged aquatic plus mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.33 km occurs to the east of WE05-15. One wetland is located 127 m north; WE09.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 7 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE05-15 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by woodland and vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply

Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE05-16</u>			
Wetland Size	SIZE1	0.39 ha	No impact on size
Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Isolated	No impact on site type
Vegetation Communities	VEG	A marsh largely riverine and dominated by robust emergents such as Reed canary grass. Vegetation is a mix of low shrub, herbaceous, narrow leaved emergent, mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.35 km occurs to the east of WE05-16. One wetland is located 301 m northwest; WE05-10.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 6 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors

Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE05-16 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by an open field and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE08</u>			
Wetland Size	SIZE1	0.60 ha	No impact on size
Type	WLTYPE	Marsh and Shallow aquatic	No impact on type
Site Type	SITE	Isolated	No impact on site type

Vegetation Communities	VEG	A marsh and shallow aquatic largely isolated and dominated by robust emergents such as Reed canary grass. Vegetation is a mix of low shrub, herbaceous, narrow leaved emergent, robust emergent, submerged aquatic, mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 3.35 km occurs to the east of WE08. One wetland is located 575 m northwest; WE02.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 7 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE08 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by open field and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply

Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE09</u>			
Wetland Size	SIZE1	0.56 ha	No impact on size
Type	WLTYPE	Marsh	No impact on type
Site Type	SITE	Riverine	No impact on site type
Vegetation Communities	VEG	A marsh largely isolated and dominated by robust emergents such as Reed canary grass. Vegetation is a mix of hardwood , conifer, tall shrub, low shrub, herbaceous, narrow leaved emergent, free floating, mosses.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 1.24 km occurs to the east of WE09. One wetland is located 138 m northwest; WE09.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 8 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors

Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE09 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by open field and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply
Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.
<u>WE10</u>			
Wetland Size	SIZE1	0.28 ha	No impact on size
Type	WLTYPE	Swamp	No impact on type
Site Type	SITE	Isolated	No impact on site type

Vegetation Communities	VEG	A marsh largely isolated and dominated by robust emergents such as Reed canary grass. Vegetation is a mix of hardwood , herbaceous, narrow leaved emergent, robust emergent.	Project will not require removal of vegetation
Proximity to Other Wetlands	WPROX	A provincially significant wetland (PSW) – Parrott’s Bay – 2.05 km occurs to the east of WE10. One wetland is located 97 m north; WE02.	Project will not alter dimensions or proximity
Interspersion	INTER	Moderately low interspersion: The marsh has 4 forms with moderate diversity for nesting and breeding wildlife providing the majority of habitat.	The project is expected not to affect the community structure or interspersion
Open Water	OPWAT	A small amount of open water is present.	Low vulnerability to changes in runoff, sedimentation or erosion factors
Flood Attenuation	FLOOD	This wetland is isolated and is small relative to its Upstream Detention and Catchment Areas. Flood attenuation is at 100% capacity. This makes it locally very important for water retention, reduction of downstream flow velocity and prevention of floods downstream.	Project is anticipated to have negligible or no impact on hydrology
Water Quality Improvement	WQI	As an isolated wetland on predominantly mineral soil, in an agricultural area, WE10 is important for Short-Term Water Quality Improvement and is an important Long-Term Nutrient Trap.	Project impacts expected to be negligible or none. Hydrology and water flow and water quality are not expected to be impacted
Shoreline Erosion Control	SEC	Shoreline is surrounded by open field and is well vegetated to minimize erosion.	No impact
Groundwater Recharge	TGR	This wetland has little to no potential for ground water recharge, being riverine. Clay deposits on limestone sedimentary formations deposits allow for good ground water infiltration. A significant amount of the water held in this wetland will filter into the ground water of this area. A small amount of organic soil found in a smaller portion of the wetland will serve to hold water before filtering downstream.	Alterations to hydrology may affect groundwater supply. Pollution or runoff may enter groundwater supply

Species Rarity	RTOT2	No rare species were found within this wetland.	Vegetation is not expected to be altered and SAR habitat is unlikely to be impacted
Significant Features and Habitat	SGFT	The marsh is not known to be a significant colony/breeding/staging/molting/stopover site for any particular group of wildlife, but further studies need to be conducted for cryptic species and other wildlife typically associated or found within marsh and deciduous swamp habitat. The wetland shall be treated as significant until further studies are conducted.	No trees will be removed in construction or operation of the project. No impacts on significant features and habitat is anticipated.
Fish Habitat	FISHAB	Fish habitat is present.	No impact on potential fish habitat as there will be no construction within 30 m of the permanent watercourse.