



Natural Feature Impact Summary Table

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Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
Cataract Southwest Provincially Significant Wetland (PSW)	Off-Site, within the Study Area	▪ PPS: aggregate extraction is prohibited within significant wetlands. Development may be permitted adjacent to PSWs where it is demonstrated there will be no negative impacts. ▪ Greenbelt: N/A (PSW is located outside Greenbelt Plan area) ▪ Region: aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town: aggregate extraction may be permitted adjacent to NEC Natural Areas where it is demonstrated there will be no negative impacts.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ The proposed infiltration trench system and slurry wall will mitigate the potential effects of pit / quarry dewatering. ▪ Groundwater-surface water modelling indicate that groundwater levels can be maintained beneath the PSW during all operational periods of the pit / quarry. ▪ Under current conditions, groundwater levels typically vary from 1 to 2 m seasonally. ▪ The groundwater-surface water model indicates current vertical hydraulic gradients underlying the PSW are predominantly neutral or downwards, suggesting the wetland features are significantly supported by precipitation events, and not groundwater. ▪ Groundwater-surface water model indicates hydraulic gradients will not change during operations with the proposed mitigation. ▪ Therefore, no residual impacts to this PSW, including vegetation and habitat, are predicted.	▪ N/A - closest proposed extraction is approximately 430 m from the PSW	▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ Implement groundwater infiltration trench system and slurry wall in the Main Area at the start of Operational Phase 4 to mitigate the potential effects of dewatering ▪ Implement groundwater infiltration trench system and slurry wall in the South Area at the start of Operational Phase 6 to mitigate the potential effects of dewatering ▪ Remove the slurry wall from the southwest corner of the South Area upon rehabilitation	▪ Create woodland habitat in the Off-Site Ecological Enhancement Area within five years of the licence being issued. ▪ Create meadow habitat in the Off-Site Ecological Enhancement Area within five years of the licence being issued. ▪ This meadow and forest block will create a linkage with the PSW, provide additional upland habitat to support wildlife using the PSW, and also enhance erosion controls on the slope adjacent to the PSW.
Coulterville Wetland Complex PSW	Off-Site, within the Study Area	▪ PPS: aggregate extraction is prohibited within significant wetlands. Development may be permitted adjacent to PSWs where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF / KHF) – within Greenbelt NHS: aggregate extraction is prohibited within significant wetlands. Development may be permitted adjacent to PSWs where it is demonstrated there will be no negative impacts.. ▪ Region: aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area – Wetland Core Area): Wetland Core Areas are a Natural Core Area. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, there are no exceptions applicable for Wetland Core Areas. Mineral aggregate extraction is prohibited within this feature. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering Wetland Core Areas shall be maintained and/or enhanced and restored.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Coulterville Wetland Complex is perched above the water table and is not groundwater fed. ▪ Any drop in localized groundwater levels due to extraction in the Main Area will not impact the wetland. ▪ The majority of the wetland catchment area is located off-Site, and will not be impacted. ▪ Portions of the catchment area within extraction limits will be replaced during final rehabilitation. As such, the size of the catchment area will be returned to existing conditions upon rehabilitation. ▪ The majority of the 10 m VPZ will be reforested as part of the rehabilitation plan. The structural similarity between the wetland and reforestation area will create a soft edge, which will be an ecological improvement over the existing hard edge just beyond the wetland edge and the adjacent agricultural crop fields. The soft edge will also help mitigate invasive species migration into the wetland.	▪ Minimum 30 m extraction setback ▪ First 10 m of setback closest to the wetland are designated as Vegetation Protection Zone (VPZ). ▪ NOTE SEE FIGURE 1 of the technical memorandum entitled - <i>Ecological Land Classification Wetland Boundary for the 2025 Wetland Assessment of Woodland B (WSP 2025)</i> illustrating the location where revisions to ARA Site Plans regarding	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ Conduct water level monitoring at Coulterville Wetland Complex during operations	▪ Create 1.6 ha of wetland habitat, increasing the wetland areas on Site by a ratio of 16 to 1. ▪ The wetlands will be planted with shallow emergent marsh vegetation. ▪ The shoreline of lakes will be contoured, where possible, to create convoluted or irregular shoreline gradients. ▪ Where sloping and excavation depths allow, shoals or islets will be created to increase habitat diversity. ▪ Stumps and logs, boulders and rock rubble will be placed along the shoreline as habitat structure.

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				▪ The 30 m extraction setback will also increase the effective size of the VPZ because it includes existing non-wetland portions of Woodland B. This provides increased protections for water quality, disturbance (i.e., noise and dust) screening, and edge effects. ▪ The proposed 30 m extraction setback is also expected to be sufficient to maintain or enhance existing wildlife habitat functions. ▪ With the implementation of best management practices and mitigation measures, and creation of a net gain in wetland area during final rehabilitation, no negative impacts on Coulterville Wetland Complex PSW are predicted.	VPZ and wetland setbacks will be updated.		
Wetland Unit #1	On-Site (within licence boundary, but outside of extraction limits)	▪ Greenbelt (KNHF / KHF) – outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, non-significant wetlands, where it is demonstrated how connectivity will be maintained, how lost features may be replaced, how Water Resource System will be protected and how rehabilitation policies will be met. ▪ Region (PNAC): all unevaluated wetlands are considered a PNAC. Policies for mineral aggregate extraction within, and adjacent to, PNAC features is generally deferred to the Town. Although a pre-development water balance is required for wetlands, Wetland #1 does not meet the definition of a wetland under the Region due to consistent alteration by farming activities (i.e., planting of crop). ▪ Town (Supportive Natural Systems / Natural Linkages - Other Wetland): Other Wetlands (i.e., all other wetlands that are not Wetland Core Areas) are considered both a Supportive Natural System and Natural Linkage feature. Mineral aggregate extraction may be permitted within, and adjacent to, Other Wetlands where it is demonstrated the wetland is not a Regional Core Area, there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Wetland #1 is not a Regional Core Area. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate	▪ Removal of 0.10 ha of meadow marsh ▪ An equal or greater amount of wetland area will be replaced during progressive and final rehabilitation. ▪ No significant attributes, functions and linkages were identified. However, it is expected that the replaced wetland area will result in an overall net ecological benefit (i.e., increased habitat diversity, wildlife habitat enhancements) ▪ Therefore, no negative impacts on adjacent Core Areas of the Greenlands System in Peel (i.e., Woodland B) or Environmental Policy Areas (i.e., Woodland B) are expected.	▪ N/A	▪ N/A	▪ N/A	▪ Create 1.6 ha of wetland habitat, increasing the wetland areas on Site by a ratio of 16 to 1. ▪ Wetland areas will be planted with shallow emergent marsh vegetation. ▪ The shoreline of lakes will be contoured, where possible, to create convoluted or irregular shoreline gradients. ▪ Where sloping and excavation depths allow, shoals or islets will be created to increase habitat diversity. ▪ Stumps and logs, boulders and rock rubble will be placed along the shoreline as habitat structure.

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			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. Wetland #1 does not meet any applicable criteria under Section 5.11.2.2.5. Further, based on the Wetland Assessment (WSP 2024), Wetland #1 did not meet the definition of a wetland under the Greenbelt due to consistent alteration by farming activities (i.e., planting of crop). As such, Wetland #1 does not qualify as a Greenbelt KNHF or KHF or a Town Natural Core Area.					
Wetland Unit #2	On-Site (within extraction limits)	▪ Greenbelt (KNHF / KHF) – outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, non-significant wetlands, where it is demonstrated how connectivity will be maintained, how lost features may be replaced, how Water Resource System will be protected and how rehabilitation policies will be met. However, based on the Wetland Assessment (WSP 2024), Wetland #2 was determined not to meet the definition of a wetland under OWES. It also does not meet the definition of a wetland under the Greenbelt and is not a Greenbelt KNHF or KHF. ▪ Region (PNAC): all unevaluated wetlands are considered a PNAC. Policies for mineral aggregate extraction within, and adjacent to, PNAC features is generally deferred to the Town. Although a pre-development water balance is required for wetlands, Wetland #2 does not meet the definition of a wetland under the Region. ▪ Town (Supportive Natural Systems / Natural Linkages - Other Wetland): Other Wetlands (i.e., all other wetlands that are not Wetland Core Areas) are considered both a Supportive Natural System and Natural Linkage feature. Mineral aggregate extraction may be permitted within, and adjacent to, Other Wetlands (i.e., all other wetlands that are not Wetland Core Areas) where it is demonstrated the wetland is not a Regional Core Area, there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Wetland #2 is not a Regional Core Area. Further, based on the Wetland Assessment (WSP 2024), Wetland #2 did not meet the definition of a wetland under OWES. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6	▪ Removal of 0.03 ha of swamp inclusion and 0.11 ha of vernal pool habitat	▪ N/A	▪ N/A	▪ N/A	▪ Create 1.6 ha of wetland habitat, increasing the wetland areas on Site by a ratio of 16 to 1. ▪ Wetland areas will be planted with shallow emergent marsh vegetation. ▪ The shoreline of lakes will be contoured, where possible, to create convoluted or irregular shoreline gradients. ▪ Where sloping and excavation depths allow, shoals or islets will be created to increase habitat diversity. ▪ Stumps and logs, boulders and rock rubble will be placed along the shoreline as habitat structure.

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		and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. Wetland #2 does not meet any applicable criteria under Section 5.11.2.2.5. Further, based on the Wetland Assessment (WSP 2024), Wetland #2 did not meet the definition of a wetland under the Greenbelt. As such, Wetland #2 does not qualify as a Greenbelt KNHF or KHF or a Town Natural Core Area.					
Wetland Units #3 and #4 (one feature)	On-Site (within licence boundary, but outside of extraction limits)	▪ Greenbelt (KNHF/KHF) – within Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, non-significant wetlands, where it is demonstrated how connectivity will be maintained, how lost features may be replaced, how Water Resource System will be protected and how rehabilitation policies will be met. ▪ Region (Core Area): because a portion of Wetland #3 overlaps with Woodand B (Core Woodland), the wetland is considered a Core Area. Mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas are deferred to the Town. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, the wetland is considered a Region Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Water balance – Catchment SW16 will have a decrease in surplus of approximately 29% under operational conditions and 29% under rehabilitated conditions. However, flow has not been observed during the monitoring period at SW16. The portion of SW16 catchment on the site does not report runoff downstream. Any contribution from groundwater at SW16 will be maintained through infiltration mitigation system. ▪ The majority of the 10 m VPZ will be reforested as part of the rehabilitation plan. The structural similarity between the wetland (marsh and swamp) and reforestation area will create a soft edge, which will be an ecological improvement over the existing hard edge just beyond the wetland edge and the adjacent agricultural crop fields. The soft edge will also help mitigate invasive species migration into the wetland. ▪ The proposed 30 m extraction setback is also expected to be sufficient to maintain or enhance existing wildlife habitat functions. ▪ With the implementation of best management practices and mitigation measures, and creation of a net gain in wetland area during final rehabilitation, no negative impacts on Wetlands #3 and #4 are predicted.	▪ Minimum 30 m extraction setback ▪ First 10 m of setback adjacent to the wetland are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ A vegetated berm will be located between the VPZ and the extraction area. Upon final rehabilitation, the berm will be removed. ▪ Implement groundwater infiltration trench system	▪ Create 1.6 ha of wetland habitat, increasing the wetland areas on Site by a ratio of 16 to 1. ▪ The wetlands will be planted with shallow emergent marsh vegetation. ▪ The shoreline of lakes will be contoured, where possible, to create convoluted or irregular shoreline gradients. ▪ Where sloping and excavation depths allow, shoals or islets will be created to increase habitat diversity. ▪ Stumps and logs, boulders and rock rubble will be placed along the shoreline as habitat structure.
Wetland Unit #5	On-Site (within licence boundary, but outside of extraction limits)	▪ Greenbelt (KNHF/ KHF) – outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, non-significant wetlands, where it is demonstrated how connectivity will be maintained, how lost features may be replaced, how Water Resource System will be protected and how rehabilitation policies will be met. ▪ Region (PNAC): policies for development including mineral aggregate extraction within, and adjacent to, PNAC features is	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Minimal changes are expected to the tributary/drainage catchment area for Tributary #1, which drains into the wetland. ▪ The decrease in surplus and increase in groundwater drawdown over the operational period is predicted to have a minor localized impact on flow in Tributary #1.	▪ Minimum 30 m extraction setback ▪ First 10 m of setback adjacent to the wetland are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ Create riparian plantings along the connected Tributary #1 to enhance existing habitat conditions of corridor connections to Wetland #5. The riparian plantings will also provide additional water quality protections

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		generally deferred to the Town. However, a pre-development water balance is required for wetlands. ▪ Town (Supportive Natural Systems / Natural Linkages - Other Wetland): mineral aggregate extraction may be permitted within, and adjacent to, Other Wetlands (i.e., all other wetlands that are not Wetland Core Areas) where it is demonstrated the wetland is not a Regional Core Area, there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Wetland #5 is not a Regional Core Area. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. Wetland #5 does not meet any applicable criteria under Section 5.11.2.2.5.		▪ Water levels in Pond #1 associated with the wetland are expected to be lower due to the reduced flow in Tributary #1. ▪ The majority of the 10 m VPZ will be reforested as part of the rehabilitation plan. The VPZ will create a soft edge, which will be an ecological improvement over the existing hard edge between the wetland and adjacent residential area and agricultural crop fields. The soft edge will also help mitigate invasive species migration into the wetland. ▪ The VPZ also provides protections for water quality, and disturbance (i.e., noise and dust) screening. ▪ The proposed 30 m extraction setback is also expected to be sufficient to maintain or enhance existing wildlife habitat functions. ▪ With the implementation of best management practices and mitigation measures, and enhancements (i.e., riparian plantings) during progressive rehabilitation, no negative impacts on Wetland #5 are predicted.		▪ Develop and implement a Spill Prevention and Response Plan ▪ A vegetated berm will be located between the VPZ and the extraction area. Upon final rehabilitation, the berm will be removed. ▪ Conduct water level and temperature monitoring at Pond #1 (associated with the wetland) during operations	for water flowing into the wetland, which will enhance existing wildlife habitat (e.g., amphibians). ▪ Create 1.6 ha of wetland habitat, increasing the wetland areas on Site by a ratio of 16 to 1. ▪ The wetlands will be planted with shallow emergent marsh vegetation. ▪ The shoreline of lakes will be contoured, where possible, to create convoluted or irregular shoreline gradients. ▪ Where sloping and excavation depths allow, shoals or islets will be created to increase habitat diversity. ▪ Stumps and logs, boulders and rock rubble will be placed along the shoreline as habitat structure.
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Barn #1b	On-Site (within extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: within the Greenbelt Plan NHS, mineral aggregate operations are prohibited within habitat of endangered or threatened species. Outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and	▪ Removal of Barn #1b, which was assessed to represent a secondary roost for SAR bats (i.e., roosts used less frequently) as part of a roost network. ▪ Barn #4, to the north of Barn #1b, was assessed to be the primary roost for SAR bats, and is outside of the extraction limits and will not be directly impacted. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove Barn #1b outside of the bat active period (March 15 – November 30). Because the barn is habitat for two SAR bat species, the most restrictive active period is used. ▪ Install bat boxes and rock piles on the Site, outside of the extraction area.	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

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		all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. Barn #1b is not considered significant habitat of endangered or threatened species as it represents a secondary roost. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and adjacent to this habitat where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Barn #1b does not meet any applicable criteria under Section 5.11.2.2.5.	foraging habitat in the local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely impact the local population of bats.				
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Barn #2	On-Site (within extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally	▪ Removal of Barn #2, which was assessed to represent a secondary roost for SAR bats (i.e., roosts used less frequently) as part of a roost network. ▪ Barn #4, to the north of Barn #2, was assessed to be the primary roost for SAR bats, and is outside of the extraction limits and will not be directly impacted. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove Barn #2 outside of the bat active period (March 15 – November 30). Because the barn is habitat for two SAR bat species, the most restrictive active period is used. ▪ Install bat boxes and rock piles on the Site, outside of the extraction area.	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

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		prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. Barn #2 is not considered significant habitat of endangered or threatened species as it represents a secondary roost. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and adjacent to this habitat where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Barn #2 does not meet any applicable criteria under Section 5.11.2.2.5.	abundant additional foraging habitat in the local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely impact the local population of bats.				
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Barn #3	On-Site (within extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8.	▪ Removal of Barn #3, which was assessed to represent a secondary roost for SAR bats (i.e., roosts used less frequently) as part of a roost network. ▪ Barn #4, to the north of Barn #3, was assessed to be the primary roost for SAR bats, and is outside of the extraction limits and will not be directly impacted. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional foraging habitat in the	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove Barn #3 outside of the bat active period (March 15 – November 30). Because the barn is habitat for two SAR bat species, the most restrictive active period is used. ▪ Install bat boxes and rock piles on the Site, outside of the extraction area.	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

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			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. Barn #3 is not considered significant habitat of endangered or threatened species as it represents a secondary roost. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and adjacent to this habitat where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Barn #3 does not meet any applicable criteria under Section 5.11.2.2.5.	local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely impact the local population of bats.				
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Barn #4	On-Site (within licence boundary, but outside of extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except	None – feature is outside of the extraction limit. Feature is to be retained for cultural heritage and SAR reasons. No direct removal proposed.	▪ No adverse impacts to Barn #4 due to changes to surface water resources or groundwater resources as the habitat consists of an anthropogenic structure. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional foraging habitat in the local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely impact the local population of bats.	▪ N/A	▪ N/A	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		as may be permitted in accordance with provincial and federal legislation. Barn #4 is considered significant habitat of endangered or threatened species as it represents a primary roost. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Barn #4 does not meet any applicable criteria under Section 5.11.2.2.5.					
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Woodland F	On-Site (within extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. Woodland F is not considered significant habitat of endangered or threatened species as it represents a secondary roost. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and	▪ Removal of Woodland F, which was assessed to represent a secondary roost for SAR bats (i.e., roosts used less frequently) as part of a roost network. ▪ Barn #4, to the north of Woodland F, was assessed to be the primary roost for SAR bats, and is outside of the extraction limits and will not be directly impacted. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional foraging habitat in the local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove Woodland F outside of the bat active period (March 15 – November 30). Because the woodland is habitat for two SAR bat species, the most restrictive active period is used. ▪ Install bat boxes and rock piles on the Site, outside of the extraction area.	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		adjacent to this habitat where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Woodland F does not meet any applicable criteria under Section 5.11.2.2.5.	impact the local population of bats.				
Habitat of Endangered Species (Little Brown Myotis / Eastern Small-footed Myotis) – Woodland G	On-Site (within extraction limits) Outside Greenbelt NHS	▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. Woodland G is not considered significant habitat of endangered or threatened species as it represents a secondary roost. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and adjacent to this habitat where it is demonstrated there will be no negative impacts.	▪ Removal of Woodland G, which was assessed to represent a secondary roost for SAR bats (i.e., roosts used less frequently) as part of a roost network. ▪ Barn #4, to the north of Woodland G, was assessed to be the primary roost for SAR bats, and is outside of the extraction limits and will not be directly impacted . ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional foraging habitat in the local landscape, consisting of agricultural fields, watercourses, ponds and forest. Removal of foraging habitat on Site is not expected to adversely impact the local population of bats.	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove Woodland G outside of the bat active period (March 15 – November 30). Because the woodland is habitat for two SAR bat species, the most restrictive active period is used. ▪ Install bat boxes and rock piles on the Site, outside of the extraction area.	▪ Create 1.6 ha of wetland habitat and 157.9 ha of open water (lake) habitat to provide foraging habitat for local SAR bat community. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create woodland in the off-Site Ecological Enhancement Area, within five years of the licence being issued.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Woodland G does not meet any applicable criteria under Section 5.11.2.2.5.					
Habitat of Threatened Species (Eastern Meadowlark and Bobolink) – Pasture Fields	On-Site (within extraction limits) Outside Greenbelt NHS	▪ MBCA: development resulting in the killing of migratory birds, or damage, destruction, removal or disturbance of active nests is prohibited. ▪ ESA: development may be permitted within habitat of endangered or threatened species with appropriate approvals / permits. ▪ PPS: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Greenbelt Plan (KNHF) – outside of Greenbelt NHS: outside of the Greenbelt Plan NHS, KNHFs within the Greenbelt Protected Countryside are subject to the policies of the PPS. ▪ Region: development may be permitted within, and adjacent to, habitat of endangered or threatened species in accordance with provincial or federal requirements. ▪ Region (NAC): habitat of endangered or threatened species is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): significant habitats of endangered or threatened species are considered a Natural Core Area, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 3.2.5.9.1, new development is prohibited within significant habitat of endangered or threatened species except as may be permitted in accordance with provincial and federal legislation. The pastures are not considered significant habitat of endangered or threatened species as they are actively uses for livestock and may also be planted in crop as part of rotation. ▪ Town (Supportive Natural Systems): all other habitat of endangered or threatened species are considered a Supportive Natural System. Extraction may be permitted within and	▪ Removal of 15.8 ha of nesting habitat.	▪ N/A	▪ N/A	▪ Follow all conditions of ESA approvals / permits. ▪ Remove habitat outside of the nesting period (May 1 – July 31) to avoid impacts to active nests or individuals. ▪ Create a total of 27.9 ha of meadow habitat in the North Area and Off-Site Ecological Enhancement Area within five years of the licence being issued.	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		adjacent to this habitat where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. The pastures do not meet any applicable criteria under Section 5.11.2.2.5.					
Fish Habitat – Tributary #1 / Pond #1	On-Site (within licence boundary, but outside of extraction limits)	▪ Fisheries Act: if development is unable to avoid impacts to fish or fish habitat, a project review is required. If the review process determines a project will result in death of fish or harmful alteration, disruption or destruction of fish habitat (HADD), an authorization is required. ▪ PPS: development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. ▪ Greenbelt (KNHF / KHF) – within and outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. ▪ Region (Fish Habitat): development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. ▪ Region (NAC): Fish habitat is also defined as a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Environmental Policy Area): Tributary #1 is mapped as an Environmental Policy Area. New mineral aggregate operations are prohibited in Environmental Policy Areas. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Corridor - Core Fishery Resource Area): development within Core Fishery Resource Areas is prohibited. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering a Core Fishery Resource Area must be maintained. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Both Tributary #1 and Pond #1 were assessed to have low potential to provide fish habitat (including specialized habitats that would be sensitive to water flow or depth). ▪ Minimal changes are expected to the tributary/drainage catchment area for Tributary #1. ▪ The decrease in surplus and increase in groundwater drawdown over the operational period is predicted to have a minor localized impact on flow in Tributary #1. ▪ However, the predicted reduced flow is not expected to reduce the wetted period or significantly alter the hydraulic function of Tributary #1. ▪ Tributary #1 was found to be dry during portions of the year and observations of surface water – groundwater interactions suggest that Tributary #1 is not supported by groundwater in this area. ▪ No change to surface water inputs to Tributary #1 is expected. ▪ Water levels in Pond #1 are expected to be lower due to the reduced flow in Tributary #1. However, no impacts to fish habitat are anticipated as the pond was assessed to have low potential to provide fish habitat. ▪ Blasting limits at the west side of the Main Area will meet DFO guidelines . Therefore, no impacts on fish habitat in Tributary #1 or Pond #1 are anticipated due to blasting.	▪ 30 m extraction setback ▪ First 10 m of setback adjacent to the tributary are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan . ▪ A vegetated berm will be located between the VPZ and the extraction area. Upon final rehabilitation, the berm will be removed. ▪ Conduct water level and temperature monitoring at Tributary #1 and Pond #1 during operations.	▪ Riparian plantings will be conducted along Tributary #1 to enhance existing habitat conditions and increase natural riparian cover . ▪ Planting will include a variety of native species of trees, shrubs, and groundcover.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHFs where the KNHF does not satisfy any other criteria of OP Section 5.11.2.2.5 a) to d), f) to i) and k) and significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Although Tributary #1/ Pond #1 do not meet any applicable criteria under Section 5.11.2.2.5, Tributary #1 is mapped as an Environmental Policy Area, and is considered a Core Fishery Resource Area, so the more restrictive policies apply.		With the implementation of best management practices and mitigation measures, and enhancements (i.e., riparian plantings) during progressive rehabilitation, no negative impacts on fish habitat in either Tributary #1 or Pond #1 are expected.			
Fish Habitat – Credit River	Off-Site, within the Study Area	Fisheries Act: if development is unable to avoid impacts to fish or fish habitat, a project review is required. If the review process determines a project will result in death of fish or harmful alteration, disruption or destruction of fish habitat (HADD), an authorization is required. PPS: development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. Greenbelt (KNHF/ KHF) – within Greenbelt NHS: aggregate extraction may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. Region (Core Area): mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. Region (Fish Habitat): development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. However, because the Credit River is also designated as a Core Area, the more restrictive policies apply. Region (NAC): fish habitat is also defined as a NAC. Policies for protection of NACs is deferred to the Town. However, because the Credit River is also designated as a Core Area, the more restrictive policies apply. Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, the Credit River is considered a Region Core Area and therefore	None – feature is outside of the extraction limit. No direct removal proposed.	- Increase in catchment of Main Branch of Credit River of 1.358 km², and decrease in catchment of the Erin Branch of the Credit River of 1.358 km², with no net change in overall catchment to the Credit River. - Slight increase in water surplus within the Site during operational period, and slight decrease in water surplus within the Site upon rehabilitation. However, the changes in surplus will be small and no impacts to fish or fish habitat in the Credit River are anticipated. - Pit / quarry dewatering will be discharged off-site to the irrigation pond system at the Osprey Valley Golf Course via a pipeline. Water will be used for irrigation at the golf course when needed, with excess water stored and later discharged through the existing pond system to the Credit River. There will be no direct discharge of water from the pit / quarry to the Credit River. Therefore, no significant changes expected to flow or thermal characteristics of the Credit River as a result of discharge to the golf course. No impacts on fish or fish habitat anticipated.	N/A	- Implement standard erosion and sediment control measures during site preparation. - Develop and implement a Spill Prevention and Response Plan - Water collected from quarry operations and discharged off-Site shall be monitored as approved by the MECP based on Permit to Take Water and Environmental Compliance Approval. This monitoring is expected to include water quality, temperature and flow parameters.	N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. ▪ Town (Natural Corridor - Core Fishery Resource Area): development within Core Fishery Resource Areas is prohibited. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering a Core Fishery Resource Area must be maintained.					
Fish Habitat - Cataract Southwest PSW	Off-Site, within the Study Area	▪ PPS: development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. ▪ Region (Core Area): mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Region (Fish Habitat): development may be permitted within, and adjacent to, fish habitat in accordance with provincial or federal requirements. However, because the PSW is also designated as a Core Area, the more restrictive policies apply. ▪ Region (NAC): Fish habitat is also defined as a NAC. Policies for protection of NACs is deferred to the Town. However, because the PSW is also designated as a Core Area, the more restrictive policies apply. ▪ Town (Natural Core Area): the fish habitat is also a PSW, which is designated as a Niagara Escarpment (NEC) Natural Area. NEC Natural Areas are considered a Natural Core Area by the Town, and all Natural Core Areas are considered Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, there are no exceptions for PSWs. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Corridor - Core Fishery Resource Area): development within Core Fishery Resource Areas is prohibited. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering a Core Fishery Resource Area must be maintained.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ The proposed infiltration trench system and slurry wall will mitigate the potential effects of pit / quarry dewatering. ▪ Groundwater-surface water modelling indicate that groundwater levels can be maintained beneath the PSW during all operational periods of the pit / quarry. ▪ Under current conditions, groundwater levels typically vary from 1 to 2 m seasonally. ▪ The groundwater-surface water model indicates current vertical hydraulic gradients underlying the PSW are predominantly neutral or downwards, suggesting the wetland features are significantly supported by precipitation events, and not groundwater. ▪ Groundwater-surface water model indicates hydraulic gradients will not change during operations with the proposed mitigation. ▪ Therefore, no residual impacts to fish habitat in this PSW are predicted.	▪ N/A - closest proposed extraction is approximately 430 m from the PSW	▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ Implement groundwater infiltration trench system and slurry wall in the South Area at the start of Operational Phase 6 to mitigate the potential effects of dewatering. ▪ Remove the slurry wall from the southwest corner of the South Area upon rehabilitation.	▪ Create woodland habitat in the Off-Site Ecological Enhancement Area adjacent to the PSW within five years of the licence being issued. ▪ Create meadow habitat in the Off-Site Ecological Enhancement Area adjacent to the PSW within five years of the licence being issued. ▪ This meadow and forest block will enhance existing riparian habitat conditions as well as enhance erosion controls on the slope adjacent to the PSW.
Permanent and Intermittent Streams – Tributary #1	On-Site (within licence boundary, but outside of extraction limits)	▪ PPS: N/A ▪ Greenbelt (KHF) – within and outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, streams where it is demonstrated there will be no negative impacts. ▪ Region (NAC): Other Valley and Stream Corridors are considered a NAC by the Region. Policies for protection of NACs is deferred to the Town. ▪ Town (Environmental Policy Area): Tributary #1 is mapped as an Environmental Policy Area. New mineral aggregate	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Tributary #1 was assessed to have low potential to provide fish habitat (including specialized habitats that would be sensitive to water flow or depth). ▪ Minimal changes are expected to the tributary/drainage catchment area for Tributary #1. ▪ The decrease in surplus and increase in groundwater drawdown over the operational	▪ 30 m extraction setback ▪ First 10 m of setback adjacent to the tributary are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan	▪ Riparian plantings will be created along Tributary #1 to enhance existing habitat conditions and increase natural riparian cover. ▪ Planting will include a variety of native species of trees, shrubs, and groundcover.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		operations are prohibited in Environmental Policy Areas. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. However, because Tributary #1 is also mapped as an Environmental Policy Area, the more restrictive policies apply. ▪ Town (Natural Corridors): all Valley and Stream Corridors are considered a Natural Corridor by the Town, and all Natural Corridors are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, the exceptions don’t apply because Tributary #1 drains an area greater than 125 ha. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering all Valley and Stream Corridors must be maintained.		period is predicted to have a minor localized impact on flow in Tributary #1. ▪ However, the predicted reduced flow is not expected to reduce the wetted period or significantly alter the hydraulic function of Tributary #1. ▪ Tributary #1 was found to be dry during portions of the year and observations of surface water – groundwater interactions suggest that Tributary #1 is not supported by groundwater in this area. ▪ No change to surface water inputs to Tributary #1 is expected. ▪ With the implementation of best management practices and mitigation measures, and enhancements (i.e., riparian plantings) during progressive rehabilitation, no negative impacts on Tributary #1 are expected.		▪ A vegetated berm will be located between the VPZ and the extraction area. Upon final rehabilitation, the berm will be removed. ▪ Conduct water level and temperature monitoring at Tributary #1 during operations	
Permanent and Intermittent Streams – Credit River	Off-Site, within the Study Area	▪ PPS: N/A ▪ Greenbelt (KHF) – within and outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, streams where it is demonstrated there will be no negative impacts. ▪ Region (Core Area): mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, the	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Increase in catchment of Main Branch of Credit River of 1.358 km², and decrease in catchment of the Erin Branch of the Credit River of 1.358 km², with no net change in overall catchment to the Credit River. ▪ Slight increase in water surplus within the Site during operational period, and slight decrease in water surplus within the Site upon rehabilitation. However, the changes in surplus will be small and no impacts to fish or fish habitat in the Credit River are anticipated. ▪ Pit / quarry dewatering will be discharged off-site to the pond system at the Osprey Valley Golf Course via a pipeline. Water will be used for irrigation at the golf course when needed, with excess water stored and later discharged through the existing pond system to the Credit River. There will be no direct discharge of water from the pit / quarry to the Credit River. Therefore, no significant changes expected to	▪ N/A	▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ Water collected from quarry operations and discharged off-Site shall be monitored as approved by the MECP based on Permit to Take Water and Environmental Compliance Approval. This monitoring is expected to include water quality, temperature and flow parameters.	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		Credit River is considered a Region Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. ▪ Town (Natural Corridors): all Valley and Stream Corridors are considered a Natural Corridor by the Town, and all Natural Corridors are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, the exceptions don’t apply because Credit River drains an area more than 125 ha in size. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering all Valley and Stream Corridors must be maintained.		flow or thermal characteristics of the Credit River as a result of discharge to the golf course.			
Significant Valleyland - Credit River Valley	Off-Site, within the Study Area	▪ PPS: aggregate extraction may be permitted within, and adjacent to, significant valleylands where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – within Greenbelt NHS: aggregate extraction may be permitted within, and adjacent to, significant valleylands where it is demonstrated the feature will be protected, enhanced or replaced. ▪ Region (Core Area): Core Valley and Stream Corridors are considered a Core Area. Mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, the Credit River is considered a Region Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. ▪ Town (Natural Corridors): all Valley and Stream Corridors are considered a Natural Corridor by the Town, and all Natural Corridors are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, the exceptions don’t apply because the Credit River drains an area	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Increase in catchment of Main Branch of Credit River of 1.358 km², and decrease in catchment of the Erin Branch of the Credit River of 1.358 km², with no net change in overall catchment to the Credit River. ▪ Slight increase in water surplus within the Site during operational period, and slight decrease in water surplus within the Site upon rehabilitation. However, the changes in surplus will be small and no impacts to fish or fish habitat in the Credit River are anticipated. ▪ Pit / quarry dewatering will be discharged off-site to the pond system at the Osprey Valley Golf Course via a pipeline. Water will be used for irrigation at the golf course when needed, with excess water stored and later discharged through the existing pond system to the Credit River. There will be no direct discharge of water from the pit / quarry to the Credit River. Therefore, no significant changes expected to flow or thermal characteristics of the Credit River as a result of discharge to the golf course. ▪ With the implementation of best management practices, no negative impacts on the Credit River Valleyland are predicted.	▪ N/A	▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ Water collected from quarry operations and discharged off-Site shall be monitored as approved by the MECP based on Permit to Take Water and Environmental Compliance Approval. This monitoring is expected to include water quality, temperature and flow parameters.	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		more than 125 ha in size. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering all Valley and Stream Corridors must be maintained.					
Other Valleyland – Tributary #1	On-Site (within licence boundary, but outside of extraction limits)	▪ PPS: N/A ▪ Greenbelt: N/A ▪ Region (NAC): all Other Valley and Stream Corridors are considered a NAC by the Region. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Corridors): all Valley and Stream Corridors are considered a Natural Corridor by the Town, and all Natural Corridors are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, the exceptions don't apply because Tributary #1 drains an area more than 125 ha in size. Aggregate extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering all Valley and Stream Corridors must be maintained. ▪ CVC (Supporting Valleyland): N/A	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Minimal changes are expected to the tributary/drainage catchment area for Tributary #1. ▪ The decrease in surplus and increase in groundwater drawdown over the operational period is predicted to have a minor localized impact on flow in Tributary #1. ▪ However, the predicted reduced flow is not expected to reduce the wetted period or significantly alter the hydraulic function of Tributary #1. ▪ Tributary #1 was found to be dry during portions of the year and observations of surface water – groundwater interactions suggest that Tributary #1 is not supported by groundwater in this area. ▪ No change to surface water inputs to Tributary #1 is expected. ▪ With the implementation of best management practices and mitigation measures, and enhancements (i.e., riparian plantings) during progressive rehabilitation, no negative impacts on Tributary #1 Valleyland are expected.	▪ 30 m extraction setback ▪ First 10 m of setback adjacent to the tributary are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Develop and implement a Spill Prevention and Response Plan ▪ A vegetated berm will be located between the VPZ and the extraction area. Upon final rehabilitation, the berm will be removed. ▪ Conduct water level and temperature monitoring at Tributary #1 during operations	▪ Riparian plantings will be created along Tributary #1 to enhance existing habitat conditions and increase natural riparian cover. ▪ Planting will include a variety of native species of trees, shrubs, and groundcover.
Woodland A	On-Site (within licence boundary, but outside of extraction limits)	▪ PPS: N/A ▪ Greenbelt: N/A ▪ Region (NAC Woodland): Policies for protection of NACs is deferred to the Town. ▪ Town (Supportive Natural System / Natural Linkage – Other Woodlands): all Other Woodlands are considered both a Supportive Natural System and a Natural Linkage by the Town. Mineral aggregate extraction may be permitted within Other Woodlands where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. ▪ CVC (Supporting Woodlands): N/A	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, and creation of a net gain in woodland area during progressive and final rehabilitation, no negative impacts on Woodland A are predicted.	▪ N/A ▪ However, a 30 m extraction setback is applied to the adjacent wetland and Tributary #1, which provides a minimum extraction setback of 30 m and approximate VPZ of 65 m (including the 30 m extraction setback)	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation, including 5 ha planted within the first year of licence being issued. ▪ In addition, create 15.5 ha woodland in the Off-Site Ecological Enhancement Area, within five years of the licence being issued.
Significant Woodland – Woodland B	Off-Site, within the Study Area	▪ PPS: development may be permitted within, and adjacent to, significant woodlands where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – within Greenbelt NHS: within the Greenbelt Plan NHS, mineral aggregate operations are	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, as well as enhancements (i.e., setback plantings) and creation of a net gain in woodland area during progressive and final rehabilitation, no negative impacts on Woodland B are predicted.	▪ 15 m extraction setback (increased to 30 m where woodland overlaps with Coulterville Wetland)	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control	▪ The 15 m setback will be reforested. The similarity in structure between the significant woodland and the reforestation area will create a soft edge at the

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		prohibited within significant woodlands. Extraction may be permitted adjacent where an appropriate VPZ is implemented. ▪ Region (Core Area): Core Woodlands are considered a Core Area. Mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Environmental Policy Area): Woodland B is mapped as an Environmental Policy Area. New mineral aggregate operations are prohibited in Environmental Policy Areas. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area): Woodland B is a Woodland Core Area, which is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Woodland Core Areas where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained or replaced in an equal or greater amount through progressive rehabilitation. Woodland B is a Regional Core Area, and therefore extraction is prohibited. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, Woodland B is a Regional Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. ▪ CVC (High Functioning Woodlands): N/A		▪ A 15 m setback from extraction, measured from the dripline, is expected to be sufficient to protect the woodland root zone. The setback is greater than the minimum protection distance recommended by surrounding municipalities (i.e., City of Toronto, City of Guelph, Centre Wellington, City of Brampton). ▪ A critical root zone for the woodland was also evaluated to identify an appropriate VPZ. A 10 m VPZ is expected to be sufficient to protect the critical root zone, as recommended by the International Society of Arboriculture and City of Ottawa. ▪ However, where Woodland B overlaps with the Coulterville Wetland, the extraction setback will be increased to 30 m	▪ First 10 m of setback adjacent to the woodland are designated as VPZ	measures during site preparation. ▪ If gradients indicate potential for runoff to enter Woodland B, silt fencing (or similar) will be installed along the woodland dripline in such areas, prior to commencement of activities within 30 m of Woodland B ▪ Where installed, silt fencing will be maintained for the duration of the operations phase and will include regular inspections. ▪ Following rehabilitation adjacent to Woodland B, any silt fencing or other erosion/sediment controls previously installed will be removed from the Site. ▪ To avoid soil compaction in the setback area, the use of heavy machinery should be minimized within 10 m of the dripline, particularly during wet periods when soil may already be saturated	interface, which will be an ecological improvement over the hard edge that currently exists between the interface of the significant woodlands and adjacent agricultural crop fields.
Woodland C	On-Site (within extraction limits)	▪ PPS: N/A ▪ Greenbelt: N/A ▪ Region (NAC Woodland): Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): Woodland C is a Woodland Core Area, which is considered a Natural Core Area by the Town. All	▪ Removal of approximately 12.6 ha of woodland ▪ Not a primary ecological feature and no linkages to other significant	▪ N/A	▪ N/A	▪ Remove woodland C outside of active season for breeding birds (Apr 15 – Aug 15) and outside of bat active period (Mar 15 – Nov 30).	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Woodland Core Areas where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained or replaced in an equal or greater amount through progressive rehabilitation. Woodland C is not mapped as a Regional Core Area on Schedule C-2 nor does it meet the minimum size of 30 ha to be considered a Core Area under Section 2.14.13 of the Region’s OP. Further, Woodland C is not a Regional Core Area per Section 2.14.12 of the Region’s OP. ▪ CVC (Supporting Woodlands): N/A	natural features were identified. ▪ With the implementation of best management practices and mitigation measures, and creation of a net gain in woodland area during progressive and final rehabilitation, compliant with Section 4.5 of the PPS, no net negative impacts on Woodland C are predicted.			▪ Implement standard erosion and sediment control measures during site preparation. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation on the site. Of this, 5 ha will be planted within the first year of licence being issued. In addition, within five years of the licence being issued, 15.5 ha of woodland will also be created in the Off-Site Ecological Enhancement Area.	
Significant Woodland – Woodland D	Off-Site, within the Study Area	▪ PPS: development may be permitted within, and adjacent to, significant woodlands where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – within Greenbelt NHS: within the Greenbelt Plan NHS, mineral aggregate operations are prohibited within significant woodlands. Extraction may be permitted adjacent where an appropriate VPZ is implemented. ▪ Region (Core Area): Core Woodlands are considered a Core Area. Mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area): Woodland D is a Woodland Core Area, which is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Woodland Core Areas where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained or replaced in an equal or greater amount through progressive rehabilitation. Woodland D is a Regional Core Area, and therefore extraction is prohibited. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF/KHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, as well as enhancements (i.e., setback plantings) and creation of a net gain in woodland area during progressive and final rehabilitation, no negative impacts on Woodland D are predicted. ▪ A 15 m setback from extraction, measured from the dripline, is expected to be sufficient to protect the woodland root zone. The setback is greater than the minimum protection distance recommended by surrounding municipalities (i.e., City of Toronto, City of Guelph, Centre Wellington, City of Brampton). ▪ A critical root zone for the woodland was also evaluated to identify an appropriate VPZ. A 10 m VPZ is expected to be sufficient to protect the critical root zone, as recommended by the International Society of Arboriculture and City of Ottawa.	▪ 15 m extraction setback ▪ First 10 m of setback adjacent to the woodland are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation. ▪ If gradients indicate potential for runoff to enter Woodland D, silt fencing (or similar) will be installed along the woodland dripline in such areas, prior to commencement of activities within 30 m of Woodland D ▪ Where installed, silt fencing will be maintained for the duration of the operations phase and will include regular inspections. ▪ Following rehabilitation adjacent to Woodland D, any silt fencing or other erosion/sediment controls previously installed will be removed from the Site. ▪ To avoid soil compaction in the setback area, the use of heavy machinery should be minimized within 10 m of the dripline, particularly during	▪ The 15 m setback will be reforested. The similarity in structure between the significant woodland and the reforestation area will create a soft edge at the interface, which will be an ecological improvement over the hard edge that currently exists between the interface of the significant woodlands and adjacent agricultural crop fields.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, Woodland D is a Regional Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature. ▪ CVC (High Functioning Woodlands): N/A				wet periods when soil may already be saturated	
Significant Woodland – Woodland E	Off-Site, within the Study Area	▪ PPS: development may be permitted within, and adjacent to, significant woodlands where it is demonstrated there will be no negative impacts. ▪ Region (Core Area): Core Woodlands are considered a Core Area. Mineral aggregate extraction is prohibited within Core Areas. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area): Woodland E is a Woodland Core Area, which is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Woodland Core Areas where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained or replaced in an equal or greater amount through progressive rehabilitation. Woodland E is a Regional Core Area. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ CVC (High Functioning Woodlands): N/A	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Woodland E is separated from the Site by an existing road (Cataract Road). With the implementation of best management practices and mitigation measures , no negative impacts on Woodland E are predicted.	▪ N/A – woodland is separated from the extraction limit by Cataract Road and does not meet the Town’s definition of “adjacent lands”. As such, no setback or VPZ is required.	▪ Implement standard erosion and sediment control measures during site preparation.	▪ N/A
Woodland F	On-Site (within extraction limits)	▪ PPS: N/A ▪ Greenbelt: N/A ▪ Region (NAC Woodland): Policies for protection of NACs is deferred to the Town. ▪ Town (Supportive Natural System / Natural Linkage – Other Woodlands): all Other Woodlands are considered both a Supportive Natural System and a Natural Linkage by the Town. Mineral aggregate extraction may be permitted within Other Woodlands where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Woodland F is not a Regional Core Area per Sections 2.14.12 or 2.14.13 of the Region’s OP.	▪ Removal of approximately 2.09 ha of woodland ▪ Not a primary ecological feature and no linkages to other significant natural features were identified ▪ With the implementation of best management practices and mitigation measures , and creation of a net gain in woodland area during progressive and final rehabilitation, compliant with Section	▪ N/A	▪ N/A	▪ Remove woodland outside of active season for breeding birds (Apr 15 – Aug 15) and outside of bat active period (Mar 15 – Nov 30). ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation on the site. Of this, 5 ha will be planted within the first year of licence being issued. Within five years of the	▪ N/A

Natural Feature Impact Summary Table							
Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
			4.5 of the PPS, no net negative impacts on Woodland F are predicted.			licence being issued, woodland will also be created in the Off-Site Ecological Enhancement Area.	
Woodland G	On-Site (within extraction limits)	▪ PPS: N/A ▪ Greenbelt: N/A ▪ Region (NAC Woodland): Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): Woodland G is a Woodland Core Area, which is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Woodland Core Areas where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained or replaced in an equal or greater amount through progressive rehabilitation. Woodland G is not a Regional Core Area per Sections 2.14.12 or 2.14.13 of the Region's OP.	▪ Removal of approximately 4.16 ha of woodland ▪ Not a primary ecological feature and no linkages to other significant natural features were identified ▪ With the implementation of best management practices and mitigation measures, and creation of a net gain in woodland area during progressive and final rehabilitation, compliant with Section 4.5 of the PPS, no net negative impacts on Woodland G are predicted.	▪ N/A	▪ N/A	▪ Remove woodland outside of bat active period (Mar 15 – Nov 30). This will also avoid the active season for breeding birds (Apr 15 – Aug 15). ▪ Implement standard erosion and sediment control measures during site preparation. ▪ Create a total of 46.2 ha of woodland through progressive and final rehabilitation on the site. Of this, 5 ha will be planted within the first year of licence being issued. Within five years of the licence being issued, woodland will also be created in the Off-Site Ecological Enhancement Area.	▪ N/A
Significant Woodland – Woodland H	Off-Site, within the Study Area	▪ PPS: development may be permitted within, and adjacent to, significant woodlands where it is demonstrated there will be no negative impacts. ▪ Region (NAC Woodland): Policies for protection of NACs is deferred to the Town. ▪ Town (Supportive Natural System / Natural Linkage – Other Woodlands): all Other Woodlands are considered both a Supportive Natural System and a Natural Linkage by the Town. Mineral aggregate extraction may be permitted within Other Woodlands where it is demonstrated the woodland is not a Regional Core Area, and the significant ecological attributes, functions and linkages will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. Woodland H is not a Regional Core Area.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, no negative impacts on Woodland H are predicted.	▪ N/A - closest proposed extraction is approximately 500 m from Woodland H	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ N/A
Caledon Meltwater Deposits – Forks of the Credit Earth Science ANSI	Off-Site, within the Study Area	▪ PPS: mineral aggregate extraction may be permitted within, and adjacent to, significant ANSIs where it is demonstrated there will be no negative impacts. ▪ Region (NAC): Policies for protection of NACs is deferred to the Town. ▪ Town (Supportive Natural Systems / Natural Linkages): all Earth Science ANSIs are considered both a Supportive Natural System and a Natural Linkage by the Town. Mineral aggregate	None – feature is outside of the extraction limit. No direct removal proposed.	▪ The significance of the ANSI is related to geologic processes/features, and therefore any drop in localized groundwater levels due to extraction in the south area, will not impact the ANSI. ▪ With the implementation of best management practices, no negative impacts on the ANSI are predicted.	▪ N/A – closest proposed extraction is approximately 415 m from the ANSI	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		extraction may be permitted within and adjacent to Earth Science ANSIs, subject to the policies of the NEP.					
SWH – Turtle Wintering Area and Habitat for SOCC – Snapping Turtle (Cataract Southwest PSW)	Off-Site, outside of the Study Area	▪ PPS: mineral aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Region (NAC): All SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. However, because the SWH is also a PSW, which is considered a Regional Core Area, the more restrictive policies apply, and extraction is prohibited within this feature. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. ▪ Town (Natural Core Area – Wetland Core Area): because the SWH is also a PSW, applicable PSW policies also apply. The PSW is a Wetland Core Area, which is a Natural Core Area. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, there are no exceptions applicable for Wetland Core Areas. Mineral aggregate extraction is prohibited within this feature. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. Further, the quality and quantity of surface water entering Wetland Core Areas shall be maintained and/or enhanced and restored. ▪ Town (Natural Core Area – NEP Natural Areas): because the SWH is also a NEP Natural Area according to Map 4 of the NEP, applicable NEP Natural Area policies under Section 3.2.5.7 also apply. NEP Natural Areas are a Natural Core Area. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. However, there are no exceptions applicable for NEP Natural Areas. Mineral aggregate extraction may be permitted adjacent to NEP Natural Areas where it is demonstrated there will be no negative impacts.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ The proposed infiltration trench system and slurry wall will mitigate the potential effects of pit / quarry dewatering. ▪ Groundwater-surface water modelling indicate that groundwater levels can be maintained beneath the PSW during all operational periods of the pit / quarry. ▪ Under current conditions, groundwater levels typically vary from 1 to 2 m seasonally. ▪ The groundwater-surface water model indicates current vertical hydraulic gradients underlying the PSW are predominantly neutral or downwards, suggesting the wetland features are significantly supported by precipitation events, and not groundwater. ▪ Groundwater-surface water model indicates hydraulic gradients will not change during operations with the proposed mitigation. ▪ Therefore, no residual impacts to this PSW, including associated Turtle Wintering Area SWH, are predicted.	▪ N/A - closest proposed extraction is approximately 430 m from the PSW	▪ Implement groundwater infiltration trench system and slurry wall in the Main Area at the start of Operational Phase 4 to mitigate the potential effects of dewatering ▪ Implement groundwater infiltration trench system and slurry wall in the South Area at the start of Operational Phase 6 to mitigate the potential effects of dewatering ▪ Remove the slurry wall from the southwest corner of the South Area upon rehabilitation ▪ Develop and implement a Spill Prevention and Response Plan	▪ Create woodland habitat in the Off-Site Ecological Enhancement Area within five years of the licence being issued. ▪ Create meadow habitat in the Off-Site Ecological Enhancement Area within five years of the licence being issued. ▪ This meadow and forest block will create a linkage with the PSW, provide additional upland corridor habitat to support turtle movement between the PSW and nesting sites, and also enhance erosion controls on the slope adjacent to the PSW.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
SWH – Turtle Nesting Area (recreational trail adjacent to Cataract Southwest PSW)	Off-Site, outside of the Study Area	▪ PPS: aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Region (NAC): All SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ This type of habitat is not dependent on water and therefore no indirect impacts associated with local surface water or groundwater changes during operations or rehabilitation are expected.	▪ N/A - closest proposed extraction is approximately 500 m from the SWH	▪ N/A	▪ N/A
SWH – Habitat for SOCC – Eastern Wood-pewee and Wood Thrush (Woodland B)	Off-Site, within the Study Area	▪ PPS: aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – within Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. However, because Woodland B is also a significant woodland within the Greenbelt NHS, the more restrictive policies apply and extraction is prohibited within this feature. Extraction may be permitted adjacent where an appropriate VPZ is implemented. ▪ Region (NAC): All SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. However, because Woodland B is also a Regional Core Area, the more restrictive policies apply and extraction is prohibited within this feature. Policies for development adjacent to Core Areas is deferred to the Town. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. However, because Woodland B is	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, as well as enhancements (i.e., setback plantings) and creation of a net gain in woodland area during progressive and final rehabilitation, no negative impacts on Woodland B and associated SWH for Eastern Wood-pewee or Wood Thrush are predicted. ▪ No changes to woodland form or structure within Woodland B are anticipated with implementation of appropriate setbacks and VPZ. ▪ A 15 m setback from extraction, measured from the dripline, is expected to be sufficient to protect the woodland root zone. The setback is greater than the minimum protection distance recommended by surrounding municipalities (i.e., City of Toronto, City of Guelph, Centre Wellington, City of Brampton). ▪ A critical root zone for the woodland was also evaluated to identify an appropriate VPZ. A 10 m VPZ is expected to be sufficient to protect the critical root zone, as recommended by the International Society of Arboriculture and City of Ottawa.	▪ 15 m extraction setback ▪ First 10 m of setback adjacent to the woodland are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ The 15 m setback will be reforested. The structural similarity between Woodland B and the reforestation area will create a soft edge at the interface, which will be an ecological improvement over the hard edge that currently exists between the interface of the significant woodlands and adjacent agricultural crop fields. The soft edge will also help mitigate invasive species migration into the woodland.

Natural Feature Impact Summary Table							
Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		also mapped as an Environmental Policy Area by the Town, Section 5.11.2.2.6 does not apply. Therefore, extraction is prohibited within this feature. Extraction may be permitted adjacent where it is demonstrated there will be no negative impacts. ▪ Town (Natural Core Area – Greenbelt KNHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, Woodland B is a Regional Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature.					
SWH – Habitat for SOCC – Eastern Wood-pewee (Woodland D)	Off-Site, within the Study Area	▪ PPS: aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – within Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. However, because Woodland D is also a significant woodland within the Greenbelt NHS, the more restrictive policies apply and extraction is prohibited within this feature. ▪ Region (NAC): all SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. However, because Woodland D is also a Regional Core Area, the more restrictive policies apply and extraction is prohibited within this feature. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. ▪ Town (Natural Core Area – Greenbelt KNHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental	None – feature is outside of the extraction limit. No direct removal proposed.	▪ With the implementation of best management practices and mitigation measures, as well as enhancements (i.e., setback plantings) and creation of a net gain in woodland area during progressive and final rehabilitation, no negative impacts on Woodland D and associated SWH for Eastern Wood-pewee are predicted are predicted. ▪ No changes to woodland form or structure within Woodland D are anticipated with implementation of appropriate setbacks and VPZ. ▪ A 15 m setback from extraction, measured from the dripline, is expected to be sufficient to protect the woodland root zone. The setback is greater than the minimum protection distance recommended by surrounding municipalities (i.e., City of Toronto, City of Guelph, Centre Wellington, City of Brampton). ▪ A critical root zone for the woodland was also evaluated to identify an appropriate VPZ. A 10 m VPZ is expected to be sufficient to protect the critical root zone, as recommended by the International Society of Arboriculture and City of Ottawa.	▪ 15 m extraction setback ▪ First 10 m of setback adjacent to the woodland are designated as VPZ	▪ Clearly demarcate and maintain recommended setbacks on the site plan. ▪ Implement standard erosion and sediment control measures during site preparation.	▪ The 15 m setback will be reforested. The structural similarity between Woodland D and the reforestation area will create a soft edge at the interface, which will be an ecological improvement over the hard edge that currently exists between the interface of the significant woodlands and adjacent agricultural crop fields. The soft edge will also help mitigate invasive species migration into the woodland.

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
		Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. As above, Woodland D is a Regional Core Area and therefore meets Section 5.11.2.2.5 d). As such, no mineral aggregate extraction is permitted within the feature.					
SWH – Habitat for SOCC – Grasshopper Sparrow	Off-Site, within the Study Area	▪ PPS: aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated the feature will be protected, enhanced or replaced. ▪ Region (NAC): all SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. ▪ Town (Natural Core Area – Greenbelt KNHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. The Grasshopper Sparrow habitat is not a Regional Core Area.	None – feature is outside of the extraction limit. No direct removal proposed.	▪ Although habitat is located within the groundwater Zone of Influence, these grassland habitat types are not groundwater fed ▪ Therefore, a drop in localized groundwater levels due to extraction will not impact the SWH. ▪ No significant changes to the catchment area of this habitat are expected. ▪ No negative impacts to SWH for grasshopper sparrow are expected.	▪ N/A - closest proposed extraction is approximately 200 m from the SWH and separated by an existing road (Mississauga Road)	▪ N/A	▪ N/A

Natural Feature Impact Summary Table

Feature ¹	Location	Policy Context ²	Impact Assessment		Rehabilitation		
			Direct	Indirect	Setback / VPZ	Other Mitigation	Enhancement
SWH – Habitat for SOCC – Barn Swallow (Barn #1a, Barn #2, Barn #3, Shed #3, Barn #4)	On-Site (within extraction limits)	▪ PPS: aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated there will be no negative impacts. ▪ Greenbelt (KNHF) – outside Greenbelt NHS: mineral aggregate extraction may be permitted within, and adjacent to, SWH where it is demonstrated the feature will be protected, enhanced or replaced. ▪ Region (NAC): all SWH is considered a NAC. Policies for protection of NACs is deferred to the Town. ▪ Town (Natural Core Area): all SWH is considered a Natural Core Area by the Town. All Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.6, mineral aggregate extraction may be permitted within Environmental Policy Areas that are solely SWH where it is demonstrated there will be no negative impacts on adjacent Regional Core Areas or Environmental Policy Areas, and that significant ecological attributes, functions and linkages of the feature will be retained and/or replaced in an equal or greater amount through progressive rehabilitation. However, because Barn #1a, Barn #2, Barn #3, Shed #3, Barn #4 are also habitat for SAR bats, Section 5.11.2.2.6 does not apply, and the policies related to SAR habitat prevail. ▪ Town (Natural Core Area – Greenbelt KNHF): all Greenbelt KNHF/KHFs are considered Natural Core Areas by the Town, and all Natural Core Areas are considered to be Environmental Policy Areas. New mineral aggregate operations are generally prohibited in Environmental Policy Areas with some exceptions as outlined in Sections 3.2.5.9.1, 5.11.2.2.6 and 5.11.2.2.8. Per Section 5.11.2.2.8, mineral aggregate extraction may be permitted within Greenbelt KNHF / KHF and associated VPZ where it is demonstrated the features does not satisfy criteria for any other feature listed in OP Section 5.11.2.2.5 a) to d), f) to i), and k), and meets all other applicable provisions of OP Section 5.11.2.2.6. Barn #1a, Barn #2, Barn #3, Shed #3, and Barn #4 are not a Regional Core Area.	▪ Removal of Barn #1a, Barn #2, Barn #3, and Shed #3. There are numerous other potential nesting structures located in the local landscape which is characterized by rural and agricultural uses. Removal of nesting habitat on Site is not expected to adversely impact the local population of barn swallow. ▪ Removal of foraging habitat in the area surrounding Barn #4, which will be retained. However, there is abundant additional foraging habitat in the local landscape, consisting of agricultural fields, watercourses and ponds. Removal of foraging habitat on Site is not expected to adversely impact the local population of barn swallow.	▪ Although a small amount of potential off-Site foraging habitat characterized by agricultural fields is located within the groundwater Zone of Influence, these habitat types are not groundwater fed ▪ Therefore, a drop in localized groundwater levels due to extraction will not impact the SWH. ▪ No significant changes to the catchment area of this habitat are expected. ▪ There is abundant additional foraging habitat in the local landscape outside of the groundwater Zone of Influence, consisting of agricultural fields, watercourses and ponds. Removal of foraging habitat on Site is not expected to adversely impact the local population of barn swallow. ▪ Additional suitable foraging habitat will be created through progressive rehabilitation, including open water, wetland and grassland habitats. ▪ With the implementation of mitigation measures, as well as enhancements (i.e., creation of foraging habitat), no negative impacts to SWH for barn swallow are expected.	▪ N/A	▪ Remove nesting habitat outside of the active season (May 1 – August 31) to avoid impacts to active nests or individuals, unless disturbance is preceded by a nesting survey conducted by a qualified biologist. If any active nests are found during the nesting survey, the structure cannot be removed until the young have fledged the nest.	▪ Create a total of 25.3 ha of grassland and 7.6 ha of meadow habitat in the North Area and Off-Site Ecological Enhancement Area within five years of the licence being issued, which will provide. foraging habitat for barn swallow nesting in the local landscape.

Notes:
1 – **PSW** – Provincially Significant Wetland; **ANSI** - Area of Natural and Scientific Interest; **SWH** – Significant Wildlife Habitat; **SOCC** – Species of Conservation Concern
2 – Policy Document Acronyms: **MBCA** – Migratory Birds Convention Act; **ESA** – Endangered Species Act; **PPS** - Provincial Planning Statement; **NEP** - Niagara Escarpment Plan; **Greenbelt** - Greenbelt Plan; **Town** – Town of Caledon Official Plan (2018); **Region** – Region of Peel Official Plan (2022); **CVC** – Credit Valley Conservation’s Credit River Watershed Natural Heritage System Final Summary Report (2015)
Natural Feature Acronyms: **KNHF** – Key Natural Heritage Feature; **KHF** - Key Hydrologic Feature; **NHS** – Natural Heritage System; **NAC** – Natural Areas and Corridors as defined in Region’s OP; **PNAC** – Potential Natural Areas and Corridors as defined in Region’s OP