ATL Pearl Harbour Stage 4 – Updated Environmental Impa	act Study
Appendix G Significant Wildlife Habitat	-
Sentember 8, 2025	

Appendix G Significant Wildlife Habitat

Type	Habitat Type (MNRF 2017)	Criteria	Candidate SWH	
Habitats of Seasonal Cor	Habitats of Seasonal Concentrations of Animals			
Waterfowl Stopover and Staging Area (Terrestrial)	Fields with sheet water or utilized by tundra swans during spring (mid-March to June or September to November), or annual spring melt water flooding found in any of the following Community Types:  B060-62 B077-079 B093-95 B109-111 Agricultural fields with waste grains are commonly used by waterfowl, and these are not considered SWH.	ELC surveys and wildlife habitat assessments were used to assess the presence of candidate Waterfowl Stopover and Staging Areas (Terrestrial).	ABSENT: no representative ecosites are present in the Study Area.	
Waterfowl Stopover and Staging Area (Aquatic)	The following Community Types: Meadow Marshes (B142-144), floating marshes (B145-147), shallow marshes (B148-150), and open water marches (B151 and 152.  The combined area of the ELC ecosites and a 100 m radius area is the SWH.  Sewage treatment ponds and storm water ponds do not qualify as a SWH; however, a reservoir managed as a large wetland or pond/lake does qualify.	ELC surveys and wildlife habitat assessments were used to assess the presence of candidate Waterfowl Stopover and Staging Areas (Aquatic).	ABSENT: the organic meadow marsh (B144) within the Study Area is relatively small in size and is not expected to support large enough populations of waterfowl to qualify as a candidate waterfowl stopover and staging area (Aquatic).	
Shorebird Migratory Stopover Area	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats.  Great Lakes coastal shorelines, including groynes and other forms of amour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and late July to October.  Sewage treatment ponds and storm water ponds do not qualify as a significant wildlife habitat.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Shorebird Migratory Stopover Areas.	ABSENT: no unvegetated shorelines are present within the Study Area.	
Colonially – Nesting Bird Breeding Habitat (Bank and Cliff)	Any sites with exposed soil banks that is not a permitted aggregate area.  Does not include man-made structures or recently disturbed soil or aggregate stockpiles.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate habitat.	ABSENT: no bank or cliff habitat is present within the Study Area.	
Colonially – Nesting Bird Breeding Habitat (Tree/Shrubs)	Any tree or shrub habitats near wetlands, lakeshores, islands, and peninsulas with nests of Great Blue Heron, Bonaparte's Gull, or Double-crested Cormorant.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate habitat.	ABSENT: features were not observed during field surveys.	



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Colonially – Nesting Bird Breeding Habitat (Ground)	Rocky islands or peninsulas within lakes or large rivers. Ecosites B160-165, B169-172, B176-181, and B185-188.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate habitat.	ABSENT: no rocky islands or peninsulas occur within the Study Area.
Eagle and Osprey Concentration Area	Forested ecosites within the vicinity of lakes and rivers receiving larges runs of salmonids.	ELC surveys and background review were used to determine the likelihood of SWH presence in the Study Area.	ABSENT: Bald Eagles were recorded within the Study Area; however, no stick nests were observed using the Study Area during field surveys.
Sharp-tailed Grouse Lek	Grassy fields/meadows or peatlands such as fens and bogs separated by >15 ha from adjacent shrublands and >30 ha from adjacent treed areas.	ELC surveys and field habitat assessments were used to determine the presence of candidate sharp-tailed grouse lek habitat.	ABSENT: No open field or meadows greater than 15 ha occur within the Study Area.
Bat Hibernacula	Hibernacula may be found in caves, mine shafts, and underground foundations.	ELC surveys and background review were used to determine the presence of candidate Bat Hibernacula.	ABSENT: no candidate hibernaculum features were identified within the Study Area.
Bat Maternity Colonies	Maternity colonies considered significant wildlife habitat are found in deciduous and mixed forested ecosites.  Either of the following Community Types: Deciduous or mixed forest habitats that have >10/ha wildlife trees >25cm diameter at breast height (dbh).  Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).  Maternity Colonies are confirmed where they are in use by 10 Big Brown Bats and/or 5 Adult Female Silver-haired Bats.	ELC surveys and targeted bat maternity roost tree assessments were used to determine the presence of candidate Bat Maternity Colonies.	CANDIDATE: large trees with cavities occur sporadically throughout the Study Area, 94 potential Silver-haired Bat calls were recorded within the Subject Property during the maternity roosting season within the Study Area during the 2025 targeted survey. Candidate bat maternity colonies occur in the B108 community.
Amphibian Breeding Habitat	Swamps and thickets, vernal/seasonal pooling, riaparian and variatyof wetlands. Wetlands and pools >500m² and supporting high species diversity.	ELC surveys and wildlife habitat surveys were used to determine the presence of candidate amphibian breeding habitat.	CANDIDATE: the organic meadow marsh (B144) located in the northwest corner of the Study Area and the wetland cluster which includes the hardwood swamp (B130), organic thicket swamp (B135) and the organic meadow marsh (B144) are greater than 500m². Although amphibian acoustic survey results indicated relatively low breeding frog populations, more than 100 tadpoles were observed in B144 in the northwest corner of the Study Area and targeted salamander surveys were not completed.



Appendix G Significant Wildlife Habitat Within the Study Area

Type	Habitat Type (MNRF 2017)	Criteria	Candidate SWH
Turtle Wintering Areas	Snapping and Painted turtles utilize ELC community classes B138-142, B145-152, meadow marshes, shallow water marches, open water marshes, and open fens.  Water must be deep enough not to freeze and have soft mud substrate.  Over-wintering sites are permanent water bodies,	ELC surveys and aquatic habitat assessments were used to assess features within the Study Area that may support areas of permanent standing water but not deep enough to freeze.	<b>CANDIDATE</b> : Lake Superior within the Study Area may provide candidate turtle wintering areas.
	large wetlands, and bogs or fens with adequate dissolved oxygen.		
Snake Hibernacula	Hibernation occurs in sites located below frost lines in burrows, rock crevices, broken and fissured rock and other natural features. Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Snake Hibernacula.	ABSENT: no candidate hibernacula features were observed within the Study Area and no snakes were observed during field studies. Targeted snakes surveys were not part of the field program.
	All forested ecosites. Talus, rock barren, crevices and caves are ideal habitat.		
Rare Vegetation Commun	nities		
Cliffs, Cliff Rim, and Talus Slopes	A Cliff is vertical to near vertical bedrock >3 m in height.  A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris.	ELC surveys and botanical inventories were used to assess features within the Study Area that would be considered cliffs or talus slopes.	ABSENT: cliffs and talus slopes were not observed within the Study Area.
Rock Barren	Basic Rock Barrens (B180-181) and Acidic Rock Barrens (B163-165) supporting limited plant growth with ground cover dominated by lichens and bryophytes.	ELC surveys and botanical inventories were used to assess features within the Study Area.	ABSENT: rock barrens were not observed within the Study Area.
Rare Treed Types	Red and white pine, red and sugar maple, and mountain ash (Lake Superior coastline) stands (B011, B015, B023, B027, B033, B039, B048, B054, B064, B069, B081, B087, B097, B103, B113, B118)	ELC surveys and botanical inventories were used to assess features within the Study Area that support rare, treed communities.	ABSENT: no rare tree types were not observed within the Study Area.
Sand Dunes (including freshwater coastal dunes)	Exposed mineral material often associated with shorelines of lakes and exposed inland mineral material shaped by aeolian processes.	ELC surveys and botanical inventories were used to assess features within the Study Area that support Sand Dune habitats	ABSENT: no sand dunes were not observed within the Study Area.
Rare Arctic-Alpine Plant Communities (Including Great Lakes)	Shoreline of Lake Superior and open basic bedrock but can be present elsewhere. Ecosites B161 and 162.	ELC surveys and botanical inventories were used to assess features within the Study Area that support Rare Arctic-Alpine Plant Communities.	ABSENT: no shoreline bedrock communities occur in the Study Area and no characteristic plant species were observed during field studies.



Туре	Habitat Type (MNRF 2017)	Criteria	Candidate SWH
Diverse and Sensitive Orchid Communities	Wide variety of ecosites usually wetland on organic soils including B126-139 and B222-224.	ELC surveys and botanical inventories were used to assess features within the Study Area that support Diverse and Sensitive Orchid Communities.	ABSENT: swamp communities have potential to support orchid species; however, no indicator species were observed within the Study Area.
Provincially Rare Vegetation Communities	Provincially Rare S1, S2 and S3 vegetation communities.	ELC surveys and botanical inventories were used to assess features within the Study Area that would be considered other rare vegetation communities.	ABSENT: vegetation communities observed within the Study Area are common and widespread throughout the region and are not ranked S1-S3.
Regionally Rare Plant Species	Plant species considered regionally rare in the Checklist of Vascular Plants of the Thunder Bay District (2021).	ELC surveys and botanical inventories were used to assess the presence of regionally rare plant species in the Study Area.	ABSENT: no regionally rare plants species were observed within the Study Area.
Specialized Habitats for V	Wildlife		
Waterfowl Nesting Area	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: B129-135, B140-152, and B224. Note: includes adjacency to Provincially Significant Wetlands	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Waterfowl Nesting Areas.	<b>CANDIDATE</b> : swamp (B130, B134/B135) and marsh (B144) communities within the Study Area could provide candidate waterfowl nesting areas.
Wild Rice Stand	Ponds, marshes, lakes, bays, coastal inlets, and watercourses with wild rice. Candidate ecosites include B142-145 and B148-152.	ELC surveys and botanical inventories were used to assess the presence of wild rice stands in the Study Area.	ABSENT: wild rice was not observed within the Study Area.
Milkweed Patch	Habitat supporting more than 9 Asclepias sp. Plants.	ELC surveys and botanical inventories were used to assess the presence of milkweed in the Study Area.	ABSENT: no milkweed plants were observed within the Study Area.
Bald Eagle and Osprey nesting, Foraging, and Perching Habitat	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water.  Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat.	<b>CANDIDATE</b> : Bald Eagle was recorded within the Study Area using ARUs and might be using the Study Area for nesting, foraging, and/or perching.
Woodland Raptor Nesting Habitat	· · · · · · · · · · · · · · · · · · ·	<b>CANDIDATE</b> : forested communities (B104, B108) within the Study Area may qualify as candidate woodland raptor nesting habitat.	
	Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small offshore islands.		
	May be found in all forested ELC Ecosites.		



Appendix G Significant Wildlife Habitat Within the Study Area

Type	Habitat Type (MNRF 2017)	Criteria	Candidate SWH
Turtle Nesting Areas	(<100 m) or within the following ELC Ecosites: B003, B006-007, B031, B171-172, and B187-188.	assessments were used to determine the presence of candidate Turtle Nesting	ABSENT: no areas of exposed mineral soil suitable for turtle nesting were observed within the Study Area.
	Best nesting habitat for turtles is close to water, away from roads and sites less prone to loss of eggs by predation from skunks, raccoons, or other animals.	, Areas.	
	For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH.		
	Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.		
Aquatic Feeding Habitat (Moose)	All forested ecosites adjacent to water. Preferred sites include areas of abundant, submerged aquatic vegetation such as pondweeds, water milfoil, and yellow water lily.	ELC surveys and wildlife habitat assessments were used to determine the presence of Aquatic Feeding Habitat.	ABSENT: although wetlands occur within the Study Area, they do not provide a complex of open and shallow-water marshes with potential to support Moose aquatic feeding habitat. No Moose or signs o Moose were recorded within the Study Area.
Seeps and Springs	Seeps/Springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	ELC surveys and wildlife habitat assessments were used to determine the presence of Seeps and Springs.	ABSENT: there was only one area of groundwater upwelling observed within the Study Area and the seep is not associated with Brook Trout habitat (see Figure 3, Appendix A).
	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system		
Mineral Lick	Areas of mineral precipitate surrounding upwelling groundwater.	ELC surveys and wildlife habitat assessments were used to determine the presence of Mineral Licks.	ABSENT: no mineral licks were recorded within the Study Area.
Mammal Denning Site	All treed ecosites. Generally, in banks or sides of hills.	ELC surveys and wildlife habitat assessment were used to determine the presence of Mammal Denning Sites.	ABSENT: no mammal denning sites were observed within the Study Area.
Habitat for Species of Co	onservation Concern		
Marsh Bird Breeding Habitat	All wetland habitats with shallow water and emergent aquatic vegetation.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Marsh Bird Breeding Habitat.	e the (Common Loon, Sandhill Crane) were recorded using ARUs and swamp (B134/135) and marsh (B144) wetlands may provide habitat for candidate marsh bird breeding within the Study Area. Targeted marsh breeding bird surveys were not completed as part of the field program.
	May include any of ecosites B134-152.		



Appendix G Significant Wildlife Habitat Within the Study Area

Туре	Habitat Type (MNRF 2017)	Criteria	Candidate SWH
Open Country Bird Breeding Habitat	All field, meadow, open bog or fen, and sparse shrub ecosites: B08-09, B20-21, B29-31, B44-46, B60-62. Large fields/meadow areas greater than 30 ha. Fields/meadows not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e., no row cropping or intensive hay or livestock pasturing in the last 5 years).	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Open Country Bird Breeding Habitat.	ABSENT: no open habitat greater than 30 ha occur in the Study Area. Candidate species were not recorded within the Study Area.
Habitat for Other Species of Conservation Concern (Excluding Species Listed as Endangered or Threatened)	Habitats used by Species of Conservation Concern for all or part of their lifecycle.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Habitat for Other Species of Conservation Concern.	The following SOCC were assessed as having a medium or high likelihood of occurrence, or were confirmed within the Study Area during the field investigations:  Plants:  Yellow Specklebelly Lichen (medium)  Insects:  Monarch (medium)  Fishes:  American Brook Lamprey  Pygmy Whitefish (Great Lakes - Upper St. Lawrence populations)  Herptiles:  Snapping Turtle (high)  Birds:  Common Nighthawk (confirmed)  Candidate SWH for SOCC turtles (Snapping Turtle) is considered through Turtle Wintering Area and Turtle Nesting Areas.  See Section 4.3 and Appendix C.2 for SOCC habitat assessment.



Туре	Habitat Type (MNRF 2017)	Criteria	Candidate SWH
Animal Movement Corr	dors		
Cervid Movement Corridor (Moose)	All treed ecosites.  Movement corridors determined from presence of Aquatic Feeding Habitat and Mineral Licks.	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Cervid Movement Corridor.	ABSENT: no signs of moose were observed within the Study Area. Moose are unlikely to utilize the Study Area in meaningful numbers.
	Typically follow riparian corridors, ravines, and ridges.		
Amphibian Movement Corridor	Corridors may be found in all ecosites associated with water.  Determined based on identifying significant amphibian breeding habitat (wetland).	ELC surveys and wildlife habitat assessments were used to determine the presence of candidate Amphibian Movement Corridors.	<b>CANDIDATE</b> : candidate amphibian breeding habitat is present so corridors may also be present.



# Appendix H Design Plan

