

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	GLSE Ecosite Code			Site & Soils	Vegetation Characteristics									
												Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)											
										Natural / Naturalized															
										Terrestrial														Terrestrial, or upland, sites occur where the water table is rarely above the substrate surface or where surface materials are rarely saturated for long periods. Such sites occur on dry, fresh, and moist, non-hydric sites, with moisture regimes ≤5. Topography positions of these sites results in water shedding, where vernal pooling makes up <20% of the surface and the substrates may consist of parent material, mineral soil, rock and bedrock, or terrestrial folic organic materials.	Subtle moisture differences between sites may be reflected by the vegetation changes along those moisture gradients. Terrestrial sites, when vegetated, have a vegetation composition made up of mostly facultative, facultative upland and upland species. Community assembly and vegetation composition reflect the hierarchy of ecological influence and include high energy active and dynamic sites along with upland rocklands, cliffs, and bluffs.
										Shoreline														Shorelines are typically narrow and linear communities following the active and dynamic margins associated with ponds, lakes, streams, and rivers. Shorelines are subjected to fluctuating water levels, along with extremes in moisture, temperature and disturbance through processes which include flooding cycles, ice scour, wave energy, seepage or sheet flow, wind and water erosion, and deposition. The extent and scale of these influences mostly depends on the size of the water body and is why the Great Lakes are distinguished by the scale of their influence.	Vegetation is limited by these severe physical processes, reflected in typically low and sparse vegetation cover of a unique assemblage of shoreline species.
										Open Active Shoreline														Open active shorelines are where the substrate remains bare due to current or ongoing high energy shoreline processes, namely scouring, erosion and deposition from wave, wind and ice.	Zone where seedling establishment and growth is inhibited by high energy and moving substrate, reflected in vegetation cover being less than 2%.

Coastal Open Active Shoreline

Rock	k	Coastal Calcareous Rock Open Active Shoreline	SHAc-k1	SHAc-k1 (B)	SHAc-k1 (G)	SHAc-k1 (S)	<ul style="list-style-type: none"> Active and direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5), ranging from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines Primarily exposed rock surfaces or where surface materials are still less than 5 cm 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
	n	Coastal Non-Calcareous Rock Open Active Shoreline	SHAc-n1	SHAc-n1 (B)	SHAc-n1 (G)	SHAc-n1 (S)	<ul style="list-style-type: none"> Active and direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth is <15 cm and rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
Mineral	k	Coastal Calcareous Mineral Open Active Shoreline	SHAc-k2	SHAc-k2 (B)	SHAc-k2 (G)	SHAc-k2 (S)	<ul style="list-style-type: none"> Active and direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
	n	Coastal Non-Calcareous Mineral Open Active Shoreline	SHAc-n2	SHAc-n2 (B)	SHAc-n2 (G)	SHAc-n2 (S)	<ul style="list-style-type: none"> Active and direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays). 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%

Open Active Shoreline

Rock	k	Calcareous Rock Open Active Shoreline	SHA-k1	SHA-k1 (B)	SHA-k1 (G)	SHA-k1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
	n	Non-Calcareous Rock Open Active Shoreline	SHA-n1	SHA-n1 (B)	SHA-n1 (G)	SHA-n1 (S)	<ul style="list-style-type: none"> Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Vegetation inhibited by active shoreline processes, limiting cover to less than 2%

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics	
									Mineral	k	Calcareous Mineral Open Active Shoreline	SHA-k2	SHA-k2 (B)	SHA-k2 (G)	SHA-k2 (S)	- Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) - Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays)	- Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
										n	Non-Calcareous Mineral Open Active Shoreline	SHA-n2	SHA-n2 (B)	SHA-n2 (G)	SHA-n2 (S)	- Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) - Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays)	- Vegetation inhibited by active shoreline processes, limiting cover to less than 2%
Open Dynamic Shoreline															Open dynamic shorelines are the zones just landward of the open active shorelines, where the recently stabilized parent mineral material is being colonized by vegetation that can endure these primary conditions.	Recently stabilized yet still affected enough to impact vegetation establishment, these dynamic zones get colonized by an association of species that make up the shoreline flora. On such recently exposed or deposited materials, vegetation is sparse and consist primarily of herbaceous species (>2% cover) and the woody vegetation is less than 10%.	

Coastal Open Dynamic Shoreline

Rock	k	Coastal Calcareous Rock Open Dynamic Shoreline	SHOc-k1	SHOc-k1 (B)	SHOc-k1 (G)	SHOc-k1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
	n	Coastal Non-Calcareous Rock Open Dynamic Shoreline	SHOc-n1	SHOc-n1 (B)	SHOc-n1 (G)	SHOc-n1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
Mineral	k	Coastal Calcareous Mineral Open Dynamic Shoreline	SHOc-k2	SHOc-k2 (B)	SHOc-k2 (G)	SHOc-k2 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
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Open Dynamic Shoreline

Rock	k	Calcareous Rock Open Dynamic Shoreline	SHO-k1	SHO-k1 (B)	SHO-k1 (G)	SHO-k1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
	n	Non-Calcareous Rock Open Dynamic Shoreline	SHO-n1	SHO-n1 (B)	SHO-n1 (G)	SHO-n1 (S)	<ul style="list-style-type: none"> Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
Mineral	k	Calcareous Mineral Open Dynamic Shoreline	SHO-k2	SHO-k2 (B)	SHO-k2 (G)	SHO-k2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%
	n	Non-Calcareous Mineral Open Dynamic Shoreline	SHO-n2	SHO-n2 (B)	SHO-n2 (G)	SHO-n2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) Dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Limited, sparse establishment of shoreline herbaceous vegetation on recently stabilized substrate materials Herbaceous vegetation cover >2%, woody vegetation cover <10%

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Woody Dynamic Shoreline															Woody dynamic shorelines are typically more landward in the dynamic zone where shoreline processes are least extreme and allow some woody species to establish and grow.	Woody species that establish in such environments are included in the shoreline flora, and typically do not exceed 25% tree or shrub cover. The landward boundary of shorelines is discerned when shoreline flora is lost and soils with organics and horizons are established.

Coastal Woody Dynamic Shoreline

Shrub	Rock	k	Coastal Calcareous Rock Shrub Dynamic Shoreline	SHWc-Sk1	SHWc-Sk1 (B)	SHWc-Sk1 (G)	SHWc-Sk1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		n	Coastal Non-Calcareous Rock Shrub Dynamic Shoreline	SHWc-Sn1	SHWc-Sn1 (B)	SHWc-Sn1 (G)	SHWc-Sn1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		k	Coastal Calcareous Mineral Shrub Dynamic Shoreline	SHWc-Sk2	SHWc-Sk2 (B)	SHWc-Sk2 (G)	SHWc-Sk2 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		n	Coastal Non-Calcareous Mineral Shrub Dynamic Shoreline	SHWc-Sn2	SHWc-Sn2 (B)	SHWc-Sn2 (G)	SHWc-Sn2 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
	Rock	k	Coastal Calcareous Rock Treed Dynamic Shoreline	SHWc-Tk1	SHWc-Tk1 (B)	SHWc-Tk1 (G)	SHWc-Tk1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		n	Coastal Non-Calcareous Rock Treed Dynamic Shoreline	SHWc-Tn1	SHWc-Tn1 (B)	SHWc-Tn1 (G)	SHWc-Tn1 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		k	Coastal Calcareous Mineral Treed Dynamic Shoreline	SHWc-Tk2	SHWc-Tk2 (B)	SHWc-Tk2 (G)	SHWc-Tk2 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		n	Coastal Non-Calcareous Mineral Treed Dynamic Shoreline	SHWc-Tn2	SHWc-Tn2 (B)	SHWc-Tn2 (G)	SHWc-Tn2 (S)	<ul style="list-style-type: none"> Direct influence by a Great Lake shoreline, with inhibitive levels of energy and shoreline processes Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade

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Woody Dynamic Shoreline

Shrub	Rock	k	Calcareous Rock Shrub Dynamic Shoreline	SHW-Sk1	SHW-Sk1 (B)	SHW-Sk1 (G)	SHW-Sk1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		n	Non-Calcareous Rock Shrub Dynamic Shoreline	SHW-Sn1	SHW-Sn1 (B)	SHW-Sn1 (G)	SHW-Sn1 (S)	<ul style="list-style-type: none"> Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		k	Calcareous Mineral Shrub Dynamic Shoreline	SHW-Sk2	SHW-Sk2 (B)	SHW-Sk2 (G)	SHW-Sk2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
		n	Non-Calcareous Mineral Shrub Dynamic Shoreline	SHW-Sn2	SHW-Sn2 (B)	SHW-Sn2 (G)	SHW-Sn2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Shrub cover >25% with variation from clumped or sparse to continuous Tree cover <10%
	Rock	k	Calcareous Rock Treed Dynamic Shoreline	SHW-Tk1	SHW-Tk1 (B)	SHW-Tk1 (G)	SHW-Tk1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Sites range from very flat or slightly broken rock and bedrock surfaces, to gravel, cobble, and stone shorelines and often have seepage and sheet flow Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		n	Non-Calcareous Rock Treed Dynamic Shoreline	SHW-Tn1	SHW-Tn1 (B)	SHW-Tn1 (G)	SHW-Tn1 (S)	<ul style="list-style-type: none"> Igneous and/or metamorphic substrate with >66% silica and low calcareous content, no fizz with acid (pH <7.5) Often steep and irregular rock and bedrock shorelines which include gravel, cobble and stony substrates Average substrate depth <15 cm and exposed rock and bedrock surfaces cover >50% 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		k	Calcareous Mineral Treed Dynamic Shoreline	SHW-Tk2	SHW-Tk2 (B)	SHW-Tk2 (G)	SHW-Tk2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, high calcareous content, fizz with acid (pH >7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
		n	Non-Calcareous Mineral Treed Dynamic Shoreline	SHW-Tn2	SHW-Tn2 (B)	SHW-Tn2 (G)	SHW-Tn2 (S)	<ul style="list-style-type: none"> Unconsolidated mineral substrate, low carbonates, no fizz with acid (pH <7.5) The dominant materials are <2 mm diameter (e.g. sands, loams, silts, and clays) 	<ul style="list-style-type: none"> Tree cover 10-25% with variation from sparse to open tree cover Understory cover sparse to continuous, depending on environment and shade
Bluff								Bluffs are active, steep to near-vertical exposures of unconsolidated mineral material along with the slump of that material at the bottom of the slope. Actively eroding bluff slopes and accumulating slumps are typically restricted to extant or historical lacustrine or riverine shorelines. These actively eroding sites must be greater than 3 m in height and greater than 173° in slope, where localized hydrology and seepage often cause slope failures leaving various stages of recovery from mass wasting and slumping events along the slope.	Vegetation cover varies from sparse and barren to continuous herbaceous or shrub cover. Tree establishment is restricted by time since erosion-related disturbances and rarely exceeds 10 metres in height or exceed 25% cover before the next erosional event occurs.
	Open Active Bluff							Open active bluffs and slumps are those sections of the slope that have recently exposed bare mineral substrate materials that may be subject to ongoing erosional processes, along with the slump of material resulting at the bottom of slope.	These sites are characterized by their lack of vegetation and remain bare due to high energy erosional processes and burial with absolute vegetation cover less than 2%.

Coastal Open Active Bluff

	k	Coastal Calcareous Open Active Bluff	BLAc-k1	BLAc-k1 (B)	BLAc-k1 (G)	BLAc-k1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation cover is mostly sparse and barren, absolute cover <2%
	n	Coastal Non-Calcareous Open Active Bluff	BLAc-n1	BLAc-n1 (B)	BLAc-n1 (G)	BLAc-n1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation cover is mostly sparse and barren, absolute cover <2%

Open Active Bluff

	k	Calcareous Open Active Bluff	BLA-k1	BLA-k1 (B)	BLA-k1 (G)	BLA-k1 (S)	<ul style="list-style-type: none"> Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation cover is mostly sparse and barren, absolute cover <2%
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Open Dynamic Bluff															Open dynamic bluffs and slumps are those sections of the slope where enough time since last erosional event has allowed herbaceous vegetation to get re-established.	Recently stable materials represent primary sites upon which vegetation succession begins again: light seeded, and annual species tend to get establish first. With no other environmental driver except recurring disturbance, vegetation establishment on such mostly bare substrate is somewhat random and mixed. Vegetation dependant on local seed sources.		
Coastal Open Dynamic Bluff																		
										k	Coastal Calcareous Open Dynamic Bluff	BLOc-k1	BLOc-k1 (B)	BLOc-k1 (G)	BLOc-k1 (S)	- Direct influence from a Great Lake - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Open herbaceous vegetation cover is >2% with woody vegetation <10%	
										n	Coastal Non-Calcareous Open Dynamic Bluff	BLOc-n1	BLOc-n1 (B)	BLOc-n1 (G)	BLOc-n1 (S)	- Direct influence from a Great Lake - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Open herbaceous vegetation cover is >2% with woody vegetation <10%	
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Woody Dynamic Bluff															Woody dynamic bluffs and slumps are those sections of the slope with the most time to recover since the previous mass wasting events, where woody vegetation have now had a chance to get established.	Still in early stages of successional development, these mostly low and sparsely treed sections consist of early successional shade intolerant species. Shrub and tree cover does not typically get a chance to exceed 25% cover before the next mass wasting event occurs to reset the successional clock. If slope becomes completely mature treed, then likely erosion has stopped, and while it remains a historical bluff, it is no longer an active bluff and slump.		
Coastal Woody Dynamic Bluff																		
										Shrub	k	Coastal Calcareous Shrub Dynamic Bluff	BLWc-Sk1	BLWc-Sk1 (B)	BLWc-Sk1 (G)	BLWc-Sk1 (S)	- Direct influence from a Great Lake - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Woody vegetation >10% but tree cover is <10% - Understory sparse to continuous
											n	Coastal Non-Calcareous Shrub Dynamic Bluff	BLWc-Sn1	BLWc-Sn1 (B)	BLWc-Sn1 (G)	BLWc-Sn1 (S)	- Direct influence from a Great Lake - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Woody vegetation >10% but tree cover is <10% - Understory sparse to continuous
										Treed	k	Coastal Calcareous Treed Dynamic Bluff	BLWc-Tk1	BLWc-Tk1 (B)	BLWc-Tk1 (G)	BLWc-Tk1 (S)	- Direct influence from a Great Lake - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Tree cover 10-25% with variation from sparse to open tree cover - Understory sparse to continuous
											n	Coastal Non-Calcareous Treed Dynamic Bluff	BLWc-Tn1	BLWc-Tn1 (B)	BLWc-Tn1 (G)	BLWc-Tn1 (S)	- Direct influence from a Great Lake - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Tree cover 10-25% with variation from sparse to open tree cover - Understory sparse to continuous
Woody Dynamic Bluff																		
										Shrub	k	Calcareous Shrub Dynamic Bluff	BLW-Sk1	BLW-Sk1 (B)	BLW-Sk1 (G)	BLW-Sk1 (S)	- Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Woody vegetation >10% but tree cover is <10% - Understory sparse to continuous
											n	Non-Calcareous Shrub Dynamic Bluff	BLW-Sn1	BLW-Sn1 (B)	BLW-Sn1 (G)	BLW-Sn1 (S)	- Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Woody vegetation >10% but tree cover is <10% - Understory sparse to continuous
										Treed	k	Calcareous Treed Dynamic Bluff	BLW-Tk1	BLW-Tk1 (B)	BLW-Tk1 (G)	BLW-Tk1 (S)	- Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Tree cover 10-25% with variation from sparse to open tree cover - Understory sparse to continuous
											n	Non-Calcareous Treed Dynamic Bluff	BLW-Tn1	BLW-Tn1 (B)	BLW-Tn1 (G)	BLW-Tn1 (S)	- Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Tree cover 10-25% with variation from sparse to open tree cover - Understory sparse to continuous

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Dune															Dunes are dry sandy sites associated with strong near-shore winds that actively mould the sand surface into rolling hills. Typically formed by extant or historical near-shore and aeolian processes, the unstable sandy material is not in place long enough to create soil horizons or accumulate organics, have low nutrient availability, and are subjected to drought and temperature extremes.	The unique near-shore environment and ecological drivers selects for certain plant traits, as reflected in the dune flora.
Open Active Dune															Open active dunes are the most energetic near-shore segments of dune features, undergoing regular surface changes because of wind energy.	These most active sites inhibit vegetation establishment, limiting the vegetation cover to less than 2%. In such high energy near-shore environments sand accumulations around objects left on shoreline (e.g., rocks, logs) leads to vegetation establishment and dune formation.
Coastal Open Active Dune																
k	Coastal Calcareous Open Active Dune										SDAc-k1	SDAc-k1 (B)	SDAc-k1 (G)	SDAc-k1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Stability of substrate most variable in open areas (e.g. blow outs) Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
	Coastal Non-Calcareous Open Active Dune										SDAc-n1	SDAc-n1 (B)	SDAc-n1 (G)	SDAc-n1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Stability of substrate most variable in open areas (i.e., blow outs) Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
Open Active Dune																
k	Calcareous Open Active Dune										SDA-k1	SDA-k1 (B)	SDA-k1 (G)	SDA-k1 (S)	<ul style="list-style-type: none"> Stability of substrate most variable in open areas (i.e., blow outs) Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species, cover varies from barren and scattered to more continuous cover
	Non-Calcareous Open Active Dune										SDA-n1	SDA-n1 (B)	SDA-n1 (G)	SDA-n1 (S)	<ul style="list-style-type: none"> Stability of substrate most variable in open areas (i.e., blow outs) Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
Open Dynamic Dune															Open dynamic dunes are just landward of the open active dunes where sand accumulates behind objects and vegetation to get moulded into rolling hills with blow outs.	These relatively stable materials allow establishment of some vegetation cover that can tolerate such physical extremes, making up the dune flora. While the environment allows for limited herbaceous vegetation cover, the near-shore processes are extreme enough to limit the establishment of woody vegetation.
Coastal Open Dynamic Dune																
k	Coastal Calcareous Open Dynamic Dune										SDOc-k1	SDOc-k1 (B)	SDOc-k1 (G)	SDOc-k1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Stability of substrate most variable in open areas (i.e., blow outs) Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
	Coastal Non-Calcareous Open Dynamic Dune										SDOc-n1	SDOc-n1 (B)	SDOc-n1 (G)	SDOc-n1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Stability of substrate most variable in open areas (i.e., blow outs) Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
Open Dynamic Dune																
k	Calcareous Open Dynamic Dune										SDO-k1	SDO-k1 (B)	SDO-k1 (G)	SDO-k1 (S)	<ul style="list-style-type: none"> Stability of substrate most variable in open areas (i.e., blow outs) Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
	Non-Calcareous Open Dynamic Dune										SDO-n1	SDO-n1 (B)	SDO-n1 (G)	SDO-n1 (S)	<ul style="list-style-type: none"> Stability of substrate most variable in open areas (i.e., blow outs) Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover

History System Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics										
Woody Dynamic Dune														Woody dynamic dunes are the most landward and stable segments of dune fields, typically representing the oldest dunes that have been left by the migration of the shoreline. Transition out of back-dune is distinguished by the emergence of soil horizons, accumulations of organic matter, and a loss of the unique dune flora.	These unique near-shore dynamic areas still have active processes that select for certain woody species but are typically limited enough to remain below 25% cover.										
Coastal Woody Dynamic Dune																									
Shrub									k	Coastal Calcareous Shrub Dynamic Dune	SDWc-Sk1	SDWc-Sk1 (B)	SDWc-Sk1 (G)	SDWc-Sk1 (S)	- Direct influence from a Great Lake - Stability of substrate less variable, enough to allow woody species establishment - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Shrub cover varies from barren and scattered to more continuous cover									
									n	Coastal Non-Calcareous Shrub Dynamic Dune	SDWc-Sn1	SDWc-Sn1 (B)	SDWc-Sn1 (G)	SDWc-Sn1 (S)	- Direct influence from a Great Lake - Stability of substrate less variable, enough to allow woody species establishment - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Shrub cover varies from barren and scattered to more continuous cover									
									Treed									k	Coastal Calcareous Treed Dynamic Dune	SDWc-Tk1	SDWc-Tk1 (B)	SDWc-Tk1 (G)	SDWc-Tk1 (S)	- Direct influence from a Great Lake - Stability of substrate most stable, allowing some tree species establishment - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Tree cover varies from scattered and clumped to more continuous cover
																		n	Coastal Non-Calcareous Treed Dynamic Dune	SDWc-Tn1	SDWc-Tn1 (B)	SDWc-Tn1 (G)	SDWc-Tn1 (S)	- Direct influence from a Great Lake - Stability of substrate most stable, allowing some tree species establishment - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Tree cover varies from scattered and clumped to more continuous cover
Woody Dynamic Dune																									
Shrub									k	Calcareous Shrub Dynamic Dune	SDW-Sk1	SDW-Sk1 (B)	SDW-Sk1 (G)	SDW-Sk1 (S)	- Stability of substrate less variable, enough to allow woody species establishment - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Shrub cover varies from barren and scattered to more continuous cover									
									n	Non-Calcareous Shrub Dynamic Dune	SDW-Sn1	SDW-Sn1 (B)	SDW-Sn1 (G)	SDW-Sn1 (S)	- Stability of substrate less variable, enough to allow woody species establishment - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Shrub cover varies from barren and scattered to more continuous cover									
									Treed									k	Calcareous Treed Dynamic Dune	SDW-Tk1	SDW-Tk1 (B)	SDW-Tk1 (G)	SDW-Tk1 (S)	- Stability of substrate most stable, allowing some tree species establishment - Substrate has high calcareous content and fizzes with acid (pH >7.5)	- Tree cover varies from scattered and clumped to more continuous cover
																		n	Non-Calcareous Treed Dynamic Dune	SDW-Tn1	SDW-Tn1 (B)	SDW-Tn1 (G)	SDW-Tn1 (S)	- Stability of substrate most stable, allowing some tree species establishment - Substrate has low calcareous content with no fizz with acid (pH <7.5)	- Tree cover varies from scattered and clumped to more continuous cover

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics	
Cliff and Talus															Cliffs are vertical exposed bedrock features that exceed 3 m in height, >173° in slope, and > 10 x 10 m, having sharp to variably broken edges, faces and rims. Associated talus are slopes of rock rubble at the base of the cliff with coarse rocky debris > 80% of substrate surface. For the cliff rim and face average substrate depth over bedrock is less than 15 cm and consists mostly of localized accumulations of organic matter in cracks, ledges, and amongst the coarse fragments. Similarly, the talus slope consists mostly of large rock fragments with organics accumulating in the interstices. These cliff and talus communities are subjected to extremes in temperature and moisture.	Cliff face is typically limited to lichen and moss communities, with herbaceous vegetation and a few woody stems clinging to small accumulations in cracks and on ledges. Zone of influence is typically very narrow on the rim, limited to mostly exposed and very shallow substrates and broken rims.	
Open Active Cliff and Talus															Open active cliffs and talus are limited to only shale sedimentary rock formations, being the only rock that actively erodes seasonally with freeze/thaw cycles and extremes in moisture and temperature. With all other cliffs, rock fall and disturbances are a rare event and not an ecological driver, yet these active shale cliffs continuously erode and deposit shale debris in talus.	This active nature to this substrate inhibits most seedling establishment, reflected in the vegetation cover less than 2%.	
Coastal Open Active Cliff and Talus																	
										k	Coastal Calcareous Open Active Cliff	CTAc-k1	CTAc-k1 (B)	CTAc-k1 (G)	CTAc-k1 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Open areas often restricted to near vertical, bare rock surfaces- Substrate has high calcareous content and fizzes with acid (pH>7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are
										Coastal Calcareous Open Active Talus	CTAc-k2	CTAc-k2 (B)	CTAc-k2 (G)	CTAc-k2 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Very irregular and unstable surface- Substrate has high calcareous content and fizzes with acid (pH>7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous	
Open Active Cliff and Talus																	
										k	Calcareous Open Active Cliff	CTA-k1	CTA-k1 (G)	CTA-k1 (G)	CTA-k1 (S)	<ul style="list-style-type: none">- Open areas often restricted to near vertical, bare rock surfaces- Substrate has high calcareous content and fizzes with acid (pH>7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Cover depends on how broken cliff rim and face are
										Calcareous Open Active Talus	CTA-k2	CTA-k2 (B)	CTA-k2 (G)	CTA-k2 (S)	<ul style="list-style-type: none">- Very irregular and unstable surface- Substrate has low calcareous content with no fizz with acid (pH<7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous	
Open Cliff and Talus															Substrate accumulation is restricted to small, mostly organic, accumulations in cracks, pockets and ledges.	Open cliff and talus are where stable exposed rock surfaces have been colonized by mostly lichen and moss species and have variable cover of herbaceous vegetation established in cracks and ledge positions. Vegetation cover will increase with the level of cliff rim and face brokenness and may have a few woody stems.	
Coastal Open Cliff and Talus																	
										k	Coastal Calcareous Open Cliff	CTOc-k1	CTOc-k1 (B)	CTOc-k1 (G)	CTOc-k1 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH>7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are
										Coastal Calcareous Open Talus	CTOc-k2	CTOc-k2 (B)	CTOc-k2 (G)	CTOc-k2 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH>7.5)- Very irregular and unstable surface	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous	
										n	Coastal Non-Calcareous Open Cliff	CTOc-n1	CTOc-n1 (B)	CTOc-n1 (G)	CTOc-n1 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Igneous and/or metamorphic substrate with low calcareous content, no fizz with acid (pH<7.5)- Not easily weathered- Most exposed to extremes in temperature and moisture	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are
										Coastal Non-Calcareous Open Talus	CTOc-n2	CTOc-n2 (B)	CTOc-n2 (G)	CTOc-n2 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Igneous and/or metamorphic substrate with low calcareous content, no fizz with acid (pH<7.5)- Not easily or resistant to weathering- Most exposed to extremes in temperature and moisture	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are	
Open Cliff and Talus																	
										k	Calcareous Open Cliff	CTO-k1	CTO-k1 (B)	CTO-k1 (G)	CTO-k1 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH>7.5)	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are
										Calcareous Open Talus	CTO-k2	CTO-k2 (B)	CTO-k2 (G)	CTO-k2 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH>7.5)- Very irregular and unstable surface	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous	
										n	Non-Calcareous Open Cliff	CTO-n1	CTO-n1 (B)	CTO-n1 (G)	CTO-n1 (S)	<ul style="list-style-type: none">- Igneous and/or metamorphic substrate with low calcareous content, no fizz with acid (pH<7.5)- Not easily weathered- Most exposed to extremes in temperature and moisture	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are
										Non-Calcareous Open Talus	CTO-n2	CTO-n2 (B)	CTO-n2 (G)	CTO-n2 (S)	<ul style="list-style-type: none">- Igneous and/or metamorphic substrate with low calcareous content, no fizz with acid (pH<7.5)- Not easily weathered- Most exposed to extremes in temperature and moisture	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Vegetation cover depends on how broken the cliff rim and face are	
Woody Cliff and Talus															Woody cliffs and talus occur where rock rims and faces are more broken and ledged, giving rise to more sheltered niches, cracks, ledges, and substrate accumulations. Still severely limited by exposure, extremes in temperature, substrate depth, and moisture.	Vegetation and tree cover is sparse and typically less than 25%.	
Coastal Woody Cliff and Talus																	

History System	Community Class	Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
					Shrub					k	Coastal Calcareous Shrub Cliff	CTWc-Sk1	CTWc-Sk1 (B)	CTWc-Sk1 (G)	CTWc-Sk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Shrub cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
											Coastal Calcareous Shrub Talus	CTWc-Sk2	CTWc-Sk2 (B)	CTWc-Sk2 (G)	CTWc-Sk2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Shrub cover depends on more extensive accumulations of substrate and moss to permit shrub establishment 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
										n	Coastal Non-Calcareous Shrub Cliff	CTWc-Sn1	CTWc-Sn1 (B)	CTWc-Sn1 (G)	CTWc-Sn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Shrub cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
											Coastal Non-Calcareous Shrub Talus	CTWc-Sn2	CTWc-Sn2 (B)	CTWc-Sn2 (G)	CTWc-Sn2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Shrub cover depends on more extensive accumulations of substrate and moss to permit shrub establishment 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
					Treed					k	Coastal Calcareous Treed Cliff	CTWc-Tk1	CTWc-Tk1 (B)	CTWc-Tk1 (G)	CTWc-Tk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Tree cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
											Coastal Calcareous Treed Talus	CTWc-Tk2	CTWc-Tk2 (B)	CTWc-Tk2 (G)	CTWc-Tk2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Tree cover increases as depth of moss and solum increases 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
										n	Coastal Non-Calcareous Treed Cliff	CTWc-Tn1	CTWc-Tn1 (B)	CTWc-Tn1 (G)	CTWc-Tn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Tree cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
											Coastal Non-Calcareous Treed Talus	CTWc-Tn2	CTWc-Tn2 (B)	CTWc-Tn2 (G)	CTWc-Tn2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Tree cover increases as depth of moss and solum increases 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous

Woody Cliff and Talus

					Shrub					k	Calcareous Shrub Cliff	CTW-Sk1	CTW-Sk1 (B)	CTW-Sk1 (G)	CTW-Sk1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Cliff rim and face vary from sharp to highly cracked and broken Shrub cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
											Calcareous Shrub Talus	CTW-Sk2	CTW-Sk2 (B)	CTW-Sk2 (G)	CTW-Sk2 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Shrub cover depends on more extensive accumulations of substrate and moss to permit shrub establishment 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
										n	Non-Calcareous Shrub Cliff	CTW-Sn1	CTW-Sn1 (B)	CTW-Sn1 (G)	CTW-Sn1 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Shrub cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
											Non-Calcareous Shrub Talus	CTW-Sn2	CTW-Sn2 (B)	CTW-Sn2 (G)	CTW-Sn2 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Shrub cover depends on more extensive accumulations of substrate and moss to permit shrub establishment 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs
					Treed					k	Calcareous Treed Cliff	CTW-Tk1	CTW-Tk1 (B)	CTW-Tk1 (G)	CTW-Tk1 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Tree cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
											Calcareous Treed Talus	CTW-Tk2	CTW-Tk2 (B)	CTW-Tk2 (G)	CTW-Tk2 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Tree cover increases as depth of moss and solum increases with weathering and time 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
										n	Non-Calcareous Treed Cliff	CTW-Tn1	CTW-Tn1 (B)	CTW-Tn1 (G)	CTW-Tn1 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Tree cover depends on how broken and fractured the cliff rim and face are 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous
											Non-Calcareous Treed Talus	CTW-Tn2	CTW-Tn2 (B)	CTW-Tn2 (G)	CTW-Tn2 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Not easily weathered Tree cover increases as depth of moss and solum increases 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous

History	System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Barren																Barren refers to an area that has severe environmental constraints or limitations and consequently are barely able to maintain vegetation cover. Rock barrens have greater than 80% exposed rock surfaces, with very little residual mineral material on top, and vary from flat unbroken limestone bedrock areas to rock ridges and hollows characteristic of Canadian shield igneous bedrock. Similarly, very dry deep sandy mineral substrates, especially when disturbed, can be subject to erosion and blow-outs that severely limits vegetation establishment.	These unique environmental drivers have selected for vegetation able to tolerate such extreme conditions, and lead to unique sand barren and rock barren floras. In Ontario, many sandy mineral sites have a legacy of land use that stripped the top soil to leave droughty sands that are still subject to barren conditions (e.g., Oak Ridges moraine, Haldimand Norfolk sand plain) yet have served as refugia for such sand barren species to naturalize.
Open Active Barren																Open active barrens occur where the substrate does not stay in situ long enough to allow soil to form, and this active nature to the substrate limits community establishment. Rock barrens occur only on actively eroding shale rock surfaces with continuously eroding rock (Terra Cotta Badlands).	These sites are open because of the vegetation-inhibiting levels of energy or erosion which maintain vegetation cover less than 2%.

Coastal Open Active Rock Barren

k	Coastal Calcareous Open Active Rock Barren	BAAc-rk1	BAAc-rk1 (B)	BAAc-rk1 (G)	BAAc-rk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Patchy mosaic of bare rock pavement and shallow substrates over bedrock Subject to extremes in temperature and moisture Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Bare or lichen covered rock surfaces dominate Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent
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Open Active Rock Barren

k	Calcareous Open Active Rock Barren	BAA-rk1	BAA-rk1 (B)	BAA-rk1 (G)	BAA-rk1 (S)	<ul style="list-style-type: none"> Patchy mosaic of bare rock pavement and shallow substrates over bedrock Subject to extremes in temperature and moisture Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Bare or lichen covered rock surfaces dominate Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent
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Open Active Mineral Barren

k	Calcareous Open Active Mineral Barren	BAA-mk1	BAA-mk1 (B)	BAA-mk1 (G)	BAA-mk1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Subject to drought and disturbance (e.g., fire) Substrate has high calcareous content and fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
n	Non-Calcareous Open Active Mineral Barren	BAA-mn1	BAA-mn1 (B)	BAA-mn1 (G)	BAA-mn1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Subject to drought and disturbance (e.g., fire) Substrate has low calcareous content with no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Open Barren															Open barrens occur where time has filled in the cracks and pockets with some residual mineral and organic materials on rock, or where mineral substrate materials have been in situ long enough, to allow the establishment of typically sparse vegetation cover.	Residual energy levels or time since disturbance determine the level of woody species establishment, which in this case is below 10%.

Coastal Open Dynamic Rock Barren

k	Coastal Calcareous Open Dynamic Rock Barren	BAOc-rk1	BAOc-rk1 (B)	BAOc-rk1 (G)	BAOc-rk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Patchy mosaic of bare rock pavement and shallow substrates over bedrock Subject to extremes in temperature and moisture Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Bare or lichen covered rock surfaces dominate Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent
n	Coastal Non-Calcareous Open Dynamic Rock Barren	BAOc-rn1	BAOc-rn1 (B)	BAOc-rn1 (G)	BAOc-rn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure Patchy soil development Extremes in moisture and temperatures 	<ul style="list-style-type: none"> Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent

Open Dynamic Rock Barren

k	Calcareous Open Dynamic Rock Barren	BAO-rk1	BAO-rk1 (B)	BAO-rk1 (G)	BAO-rk1 (S)	<ul style="list-style-type: none"> Patchy mosaic of bare rock pavement and shallow substrates over bedrock Subject to extremes in temperature and moisture Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Bare or lichen covered rock surfaces dominate Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent
	Alvar Open Dynamic Rock Barren	BAO-rk2	BAO-rk2 (B)	BAO-rk2 (G)	BAO-rk2 (S)	<ul style="list-style-type: none"> Patchy mosaic of bare rock pavement and shallow substrates over bedrock In open alvars, bare rock surfaces dominate Seasonal alternation between inundation and drought Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Level, unfractured limestone (calcareous) bedrock 	<ul style="list-style-type: none"> Vegetation cover varies from sparse and barren to continuous herbaceous Ground verification to demonstrate presence of alvar species
n	Non-Calcareous Open Dynamic Rock Barren	BAO-rn1	BAO-rn1 (B)	BAO-rn1 (G)	BAO-rn1 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure Patchy soil development Extremes in moisture and temperatures 	<ul style="list-style-type: none"> Vegetation cover varies from sparse and barren to continuous herbaceous Alvar species absent

Open Dynamic Mineral Barren

k	Calcareous Open Dynamic Mineral Barren	BAO-mk1	BAO-mk1 (B)	BAO-mk1 (G)	BAO-mk1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Substrate has high calcareous content and fizzes with acid (pH >7.5) Subject to drought and disturbance (e.g., fire) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover
n	Non-Calcareous Open Dynamic Mineral Barren	BAO-mn1	BAO-mn1 (B)	BAO-mn1 (G)	BAO-mn1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Substrate has low calcareous content with no fizz with acid (pH <7.5) Subject to drought and disturbance (e.g., fire) 	<ul style="list-style-type: none"> Vegetation dominated by graminoid species Cover varies from barren and scattered to more continuous cover

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Woody Barren															Woody barrens occur where cracks and very shallow accumulations of residual and organics can support woody species establishment and growth.	In the case of mineral barrens, as materials stabilize with time since disturbance, woody species established yet remain sparse and patchy. Outer boundary of barrens follows soil depth and horizonation, along with the distribution of barren flora.

Coastal Woody Rock Barren

Shrub	k	Coastal Calcareous Shrub Rock Barren	BAWc-Srk1	BAWc-Srk1 (B)	BAWc-Srk1 (G)	BAWc-Srk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Patchy mosaic of bare rock pavement and shallow substrates over bedrock Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey may be sparse and barren to continuous herbaceous Alvar species absent
		Coastal Non-Calcareous Shrub Rock Barren	BAWc-Srn1	BAWc-Srn1 (B)	BAWc-Srn1 (G)	BAWc-Srn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure Patchy soil development Extremes in moisture and temperatures 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey varies from sparse and barren to continuous herbaceous Alvar species absent
	n	Coastal Calcareous Treed Rock Barren	BAWc-Trk1	BAWc-Trk1 (B)	BAWc-Trk1 (G)	BAWc-Trk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Patchy mosaic of bare rock pavement and shallow substrates over bedrock Treed rock barrens typically reflect greater accumulations of soil over the bedrock, or more fracturing of bedrock to allow root penetration Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey varies from sparse and barren to continuous herbaceous Alvar species absent
		Coastal Non-Calcareous Treed Rock Barren	BAWc-Trn1	BAWc-Trn1 (B)	BAWc-Trn1 (G)	BAWc-Trn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Patchy soil development with greater accumulations of soil over the bedrock, or more fracturing of bedrock to allow root penetration Extremes in moisture and temperatures Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey varies from sparse and barren to continuous herbaceous Alvar species absent

Woody Dynamic Barren

Shrub	Rock	Calcareous Shrub Rock Barren	BAW-Srk1	BAW-Srk1 (B)	BAW-Srk1 (G)	BAW-Srk1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Subject to drought and disturbance (e.g. fire) 	<ul style="list-style-type: none"> Shrub cover varies from barren and scattered to more continuous cover Alvar species absent
		Alvar Shrub Rock Barren	BAW-Srk2	BAW-Srk2 (B)	BAW-Srk2 (G)	BAW-Srk2 (S)	<ul style="list-style-type: none"> Patchy mosaic of bare rock pavement and shallow substrates over bedrock Shrub alvars tend to reflect greater accumulations of soil within the cracks and pockets of the bedrock surfaces Seasonal alternation between inundation and drought Shade effects may dampen temperature and moisture extremes Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Level, unfractured limestone (calcareous) bedrock 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey sparse and barren to continuous herbaceous meadow Ground verification to demonstrate presence of alvar species
	Mineral	Non-Calcareous Shrub Rock Barren	BAW-Srn1	BAW-Srn1 (B)	BAW-Srn1 (G)	BAW-Srn1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Substrate has low calcareous content with no fizz with acid (pH <7.5) Subject to drought and disturbance (e.g. fire) 	<ul style="list-style-type: none"> Shrub cover varies from barren and scattered to more continuous cover Alvar species absent
		Calcareous Dynamic Shrub Mineral Barren	BAW-Smk1	BAW-Smk1 (B)	BAW-Smk1 (G)	BAW-Smk1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Substrate has high calcareous content and fizzes with acid (pH >7.5) Subject to drought and disturbance (e.g. fire) 	<ul style="list-style-type: none"> Shrub cover varies from barren and scattered to more continuous cover
		Non-Calcareous Dynamic Shrub Mineral Barren	BAW-Smn1	BAW-Smn1 (B)	BAW-Smn1 (G)	BAW-Smn1 (S)	<ul style="list-style-type: none"> Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune) Substrate has low calcareous content with no fizz with acid (pH <7.5) Subject to drought and disturbance (e.g. fire) 	<ul style="list-style-type: none"> Shrub cover varies from barren and scattered to more continuous cover

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics		
Treed										Rock	k	Calcareous Treed Rock Barren	BAW-Trk1	BAW-Trk1 (B)	BAW-Trk1 (G)	BAW-Trk1 (S)	<ul style="list-style-type: none">- Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune)- Substrate has high calcareous content and fizzes with acid (pH >7.5)- Subject to drought and disturbance (e.g. fire)	<ul style="list-style-type: none">- Tree cover varies from scattered and clumped to more continuous cover- Alvar species absent
												Alvar Treed Rock Barren	BAW-Trk2	BAW-Trk2 (B)	BAW-Trk2 (G)	BAW-Trk2 (S)	<ul style="list-style-type: none">- Patchy mosaic of bare rock pavement and shallow substrates over bedrock- Shrub alvars tend to reflect greater accumulations of soil within the cracks and pockets of the bedrock surfaces- Seasonal alternation between inundation and drought- Shade effects may dampen temperature and moisture extremes- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Level, unfractured limestone (calcareous) bedrock	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse and barren to continuous herbaceous meadow- Ground verification to demonstrate presence of alvar species
											n	Non-Calcareous Treed Rock Barren	BAW-Trn1	BAW-Trn1 (B)	BAW-Trn1 (G)	BAW-Trn1 (S)	<ul style="list-style-type: none">- Patchy soil development with greater accumulations of soil over the bedrock, or more fracturing of bedrock to allow root penetration- Extremes in moisture and temperatures- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey varies from sparse and barren to continuous herbaceous- Alvar species absent
										Mineral		Calcareous Dynamic Treed Mineral Barren	BAW-Tmk1	BAW-Tmk1 (B)	BAW-Tmk1 (G)	BAW-Tmk1 (S)	<ul style="list-style-type: none">- Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune)- Substrate has high calcareous content and fizzes with acid (pH >7.5)- Subject to drought and disturbance (e.g. fire)	<ul style="list-style-type: none">- Tree cover varies from scattered and clumped to more continuous cover
												Non-Calcareous Dynamic Treed Mineral Barren	BAW-Tmn1	BAW-Tmn1 (B)	BAW-Tmn1 (G)	BAW-Tmn1 (S)	<ul style="list-style-type: none">- Active and bare alluvial sands, not associated with other more distinct topographic features (i.e., sand dune)- Substrate has low calcareous content with no fizz with acid (pH <7.5)- Subject to drought and disturbance (e.g. fire)	<ul style="list-style-type: none">- Tree cover varies from scattered and clumped to more continuous cover
Rockland																<p>Rocklands occur on rock dominated landscapes with very shallow veneers of mineral (5–15 cm) and/or organic (10–40 cm) materials on top of the rock, the depth to which imposes intermediate limitations on community development. Rocklands are often associated with and represent the outer transitions from many exposed rock communities such as shorelines, rock barrens, cliffs and talus, to deeper soils.</p>	<p>Controlled by depth limitation, type of bedrock (i.e., calcareous or non-calcareous), and moisture, these often complex sites select for species able to tolerate such conditions, especially those subject to drought and fire.</p>	
Open Rockland																<p>Open rocklands occur on very shallow substrates that are thin veneers of surface materials over rock. Such very shallow materials provide enough release from limitation to typically support woody species growth, yet often some other ecological process is holding it back.</p>	<p>In such intermediate harsh environments, like near-shore Great Lakes coastal areas, or where periodic fire occurs, time since last disturbance has allowed herbaceous dominated community to be found on very shallow materials. Still subject to some intermediate severity, and subjected to extremes in temperature and moisture, vegetation cover is greater than 2%, and woody cover is less than 10%. Open rocklands occur less frequently on the landscape, since most herbaceous non-woody rocklands are already captured by other more extreme communities such as barrens and shorelines.</p>	
Coastal Open Very Shallow Rockland																		
Dry to Fresh										k	Coastal Dry to Fresh Calcareous Open Rockland	RLOc-k1	RLOc-k1 (B)	RLOc-k1 (G)	RLOc-k1 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
										n	Coastal Dry to Fresh Non-Calcareous Open Rockland	RLOc-n1	RLOc-n1 (B)	RLOc-n1 (G)	RLOc-n1 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
Moist										k	Coastal Moist Calcareous Open Rockland	RLOc-k2	RLOc-k2 (B)	RLOc-k2 (G)	RLOc-k2 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
										n	Coastal Moist Non-Calcareous Open Rockland	RLOc-n2	RLOc-n2 (B)	RLOc-n2 (G)	RLOc-n2 (S)	<ul style="list-style-type: none">- Direct influence from a Great Lake- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	

History System	Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
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Open Herbaceous Very Shallow Rockland

Woody Rockland	Dry to Fresh	k	Dry to Fresh Calcareous Open Rockland	RLO-k1	RLO-k1 (B)	RLO-k1 (G)	RLO-k1 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
		n	Dry to Fresh Non-Calcareous Open Rockland	RLO-n1	RLO-n1 (B)	RLO-n1 (G)	RLO-n1 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
	Moist	k	Moist Calcareous Open Rockland	RLO-k2	RLO-k2 (B)	RLO-k2 (G)	RLO-k2 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
		n	Moist Non-Calcareous Open Rockland	RLO-n2	RLO-n2 (B)	RLO-n2 (G)	RLO-n2 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content and no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Vegetation cover varies from sparse and barren to continuous herbaceous- Alvar species absent	
									Woody rocklands occur where most of the underlying rock surface is covered by thin veneers of surface materials, such as along the Niagara Escarpment and Nappanee plain, as well as outer fringes of more exposed rock barrens, where materials are less than 15 cm deep.	While able to support woody vegetation establishment and growth, these areas remain limited, and are reflected in stunted growths and lower canopy heights, along with woody cover being limited to 25 – 60%.

Coastal Woody Very Shallow Rockland

		Shrub		Dry to Fresh	k	Coastal Dry to Fresh Calcareous Shrub Rockland	RLWc-Sk1	RLWc-Sk1 (B)	RLWc-Sk1 (G)	RLWc-Sk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey sparse and barren to continuous herbaceous Alvar species absent
					n	Coastal Dry to Fresh Non-Calcareous Shrub Rockland	RLWc-Sn1	RLWc-Sn1 (B)	RLWc-Sn1 (G)	RLWc-Sn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey sparse and barren to continuous herbaceous Alvar species absent
				Moist	k	Coastal Moist Calcareous Shrub Rockland	RLWc-Sk2	RLWc-Sk2 (B)	RLWc-Sk2 (G)	RLWc-Sk2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey sparse and barren to continuous herbaceous Alvar species absent
					n	Coastal Moist Non-Calcareous Shrub Rockland	RLWc-Sn2	RLWc-Sn2 (B)	RLWc-Sn2 (G)	RLWc-Sn2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to continuous cover of shrubs Understorey sparse and barren to continuous herbaceous Alvar species absent
		Treed		Dry to Fresh	k	Coastal Dry to Fresh Calcareous Treed Rockland	RLWc-Tk1	RLWc-Tk1 (B)	RLWc-Tk1 (G)	RLWc-Tk1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Alvar species absent
					n	Coastal Dry to Fresh Non-Calcareous Treed Rockland	RLWc-Tn1	RLWc-Tn1 (B)	RLWc-Tn1 (G)	RLWc-Tn1 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Alvar species absent
				Moist	k	Coastal Moist Calcareous Treed Rockland	RLWc-Tk2	RLWc-Tk2 (B)	RLWc-Tk2 (G)	RLWc-Tk2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Alvar species absent
					n	Coastal Moist Non-Calcareous Treed Rockland	RLWc-Tn2	RLWc-Tn2 (B)	RLWc-Tn2 (G)	RLWc-Tn2 (S)	<ul style="list-style-type: none"> Direct influence from a Great Lake Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Alvar species absent

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
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Woody Very Shallow Rockland

k	Dry to Fresh Calcareous Shrub Rockland	RLW-Sk1	RLW-Sk1 (B)	RLW-Sk1 (G)	RLW-Sk1 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to continuous cover of shrubs- Understorey sparse and barren to continuous herbaceous- Alvar species absent	
		RLW-Sn1	RLW-Sn1 (B)	RLW-Sn1 (G)	RLW-Sn1 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to continuous cover of shrubs- Understorey sparse and barren to continuous herbaceous- Alvar species absent	
k	Moist Calcareous Shrub Rockland	RLW-Sk2	RLW-Sk2 (B)	RLW-Sk2 (G)	RLW-Sk2 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to continuous cover of shrubs- Understorey sparse and barren to continuous herbaceous- Alvar species absent	
n	Moist Non-Calcareous Shrub Rockland	RLW-Sn2	RLW-Sn2 (B)	RLW-Sn2 (G)	RLW-Sn2 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to continuous cover of shrubs- Understorey sparse and barren to continuous herbaceous- Alvar species absent	
k	Dry to Fresh White Spruce Calcareous Conifer Treed Rockland	RLW-Tck1	RLW-Tck1 (B)	RLW-Tck1 (G)	RLW-Tck1 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities, understorey sparse to continuous- White spruce with associated eastern white cedar, balsam fir, eastern white pine, eastern hop-hornbeam, red cedar, white ash, trembling aspen, balsam poplar, and/or white birch (paper birch)- Alvar species absent	
	Dry to Fresh White Pine Calcareous Conifer Treed Rockland	RLW-Tck2	RLW-Tck2 (B)	RLW-Tck2 (G)	RLW-Tck2 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern white pine lead with associated balsam fir, white spruce, eastern white cedar, northern red oak, white oak, red maple, sugar maple, black cherry, white birch (paper birch), trembling aspen, and/or large-toothed aspen, however, conifer cover remains >75%- Alvar species absent	
	Dry to Fresh White Cedar Calcareous Conifer Treed Rockland	RLW-Tck3	RLW-Tck3 (B)	RLW-Tck3 (G)	RLW-Tck3 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities, understorey sparse to continuous- Eastern white cedar with associates including balsam fir, eastern hemlock, jack pine, black spruce, white spruce, eastern white pine, white birch (paper birch), trembling aspen, white ash, sugar maple, American basswood, and/or balsam poplar- Alvar species absent	
	Dry to Fresh Red Cedar Calcareous Conifer Treed Rockland	RLW-Tck4		RLW-Tck4 (G)	RLW-Tck4 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Canopy is almost exclusively red cedar; occasionally may include incidental hardwoods such as red maple, sugar maple and/or eastern hop-hornbeam- Alvar species absent	
	Dry to Fresh Calcareous Conifer Treed Rockland	RLW-Tck5	RLW-Tck5 (B)	RLW-Tck5 (G)	RLW-Tck5 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys- Alvar species absent	
	Dry to Fresh Hemlock Calcareous Conifer Treed Rockland	RLW-Tck11	RLW-Tck11 (B)	RLW-Tck11 (G)	RLW-Tck11 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern hemlock dominated with eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and/or white birch (paper birch) associates- Alvar species absent	
	Dry to Fresh Jack Pine Calcareous Conifer Treed Rockland	RLW-Tck12	RLW-Tck12 (B)	RLW-Tck12 (G)	RLW-Tck12 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Jack pine species with associates including eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, white birch (paper birch), balsam fir, white spruce, and/or black spruce- Alvar species absent	
	n	Dry to Fresh White Spruce Non-Calcareous Conifer Treed Rockland	RLW-Tcn1	RLW-Tcn1 (B)	RLW-Tcn1 (G)	RLW-Tcn1 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- White spruce with associated eastern white cedar, balsam fir, eastern white pine, eastern hop-hornbeam, red cedar, white ash, trembling aspen, balsam poplar, and/or white birch (paper birch)- Alvar species absent
		Dry to Fresh Hemlock Non-Calcareous Conifer Treed Rockland	RLW-Tcn2	RLW-Tcn2 (B)	RLW-Tcn2 (G)	RLW-Tcn2 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern hemlock dominated with eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and/or white birch (paper birch) associates- Alvar species absent
		Dry to Fresh Jack Pine +/- Pitch Pine Non-Calcareous Conifer Treed Rockland	RLW-Tcn3	RLW-Tcn3 (B)	RLW-Tcn3 (G)	RLW-Tcn3 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Jack pine and/or pitch pine lead with associates including eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce- Alvar species absent
		Dry to Fresh White Pine +/- Red Pine Non-Calcareous Conifer Treed Rockland	RLW-Tcn4	RLW-Tcn4 (B)	RLW-Tcn4 (G)	RLW-Tcn4 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern white pine and/or red pine lead with associated balsam fir, white spruce, eastern white cedar, northern red oak, white oak, red maple, sugar maple, black cherry, paper birch, trembling aspen, and/or large-toothed aspen, however, conifer cover remains >75%- Alvar species absent

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Dry to Fresh Non-Calcareous Conifer Treed Rockland	RLW-TCn5	RLW-TCn5 (B)	RLW-TCn5 (G)	RLW-TCn5 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys • <i>Alvar species absent</i>
										Dry to Fresh Red Cedar Non-Calcareous Conifer Treed Rockland	RLW-TCn11		RLW-TCn11 (G)	RLW-TCn11 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Canopy is almost exclusively red cedar; occasionally may include incidental hardwoods such as red maple, sugar maple and/or eastern hop-hornbeam • <i>Alvar species absent</i>
										Dry to Fresh White Cedar Non-Calcareous Conifer Treed Rockland	RLW-TCn12	RLW-TCn12 (B)	RLW-TCn12 (G)	RLW-TCn12 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern white cedar with associates including balsam fir, eastern hemlock, jack pine, black spruce, white spruce, eastern white pine, paper birch, trembling aspen, white ash, sugar maple, American basswood, and/or balsam poplar • <i>Alvar species absent</i>
						Moist			k	Moist Calcareous Conifer Treed Rockland	RLW-Tck6	RLW-Tck6 (B)	RLW-Tck6 (G)	RLW-Tck6 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys • <i>Alvar species absent</i>
										Moist White Cedar Calcareous Conifer Treed Rockland	RLW-Tck7	RLW-Tck7 (B)	RLW-Tck7 (G)	RLW-Tck7 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern white cedar lead species in canopy with associates including red maple, American elm, eastern hemlock, balsam fir, black ash, yellow birch, white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash • <i>Alvar species absent</i>
										Moist Hemlock Calcareous Conifer Treed Rockland	RLW-Tck8	RLW-Tck8 (B)	RLW-Tck8 (G)	RLW-Tck8 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern hemlock is the lead species in the canopy, with associates of eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and paper birch • <i>Alvar species absent</i>
										Moist Red Cedar Calcareous Conifer Treed Rockland	RLW-Tck9		RLW-Tck9 (G)	RLW-Tck9 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Canopy is almost exclusively red cedar, may include incidental hardwoods such as red maple, sugar maple and eastern hop-hornbeam • <i>Alvar species absent</i>
										Moist White Spruce Calcareous Conifer Treed Rockland	RLW-Tck10	RLW-Tck10 (B)	RLW-Tck10 (G)	RLW-Tck10 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern white cedar lead species in canopy with associates including red maple, American elm, eastern hemlock, balsam fir, black ash, yellow birch, white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash • <i>Alvar species absent</i>
									n	Moist Non-Calcareous Conifer Treed Rockland	RLW-TCn6	RLW-TCn6 (B)	RLW-TCn6 (G)	RLW-TCn6 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys • <i>Alvar species absent</i>
										Moist White Cedar Non-Calcareous Conifer Treed Rockland	RLW-TCn7	RLW-TCn7 (B)	RLW-TCn7 (G)	RLW-TCn7 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern white cedar lead species in canopy with associates including red maple, American elm, eastern hemlock, balsam fir, black ash, yellow birch, white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash • <i>Alvar species absent</i>
										Moist Hemlock Non-Calcareous Conifer Treed Rockland	RLW-TCn8	RLW-TCn8 (B)	RLW-TCn8 (G)	RLW-TCn8 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern hemlock is the lead species in the canopy, with associates of eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and paper birch • <i>Alvar species absent</i>
										Moist Red Cedar Non-Calcareous Conifer Treed Rockland	RLW-TCn9		RLW-TCn9 (G)	RLW-TCn9 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Canopy is almost exclusively red cedar, may include incidental hardwoods such as red maple, sugar maple and eastern hop-hornbeam • <i>Alvar species absent</i>
										Moist White Spruce Non-Calcareous Conifer Treed Rockland	RLW-TCn10	RLW-TCn10 (B)	RLW-TCn10 (G)	RLW-TCn10 (S)	<ul style="list-style-type: none"> • Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) • Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Eastern white cedar lead species in canopy with associates including red maple, American elm, eastern hemlock, balsam fir, black ash, yellow birch, white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash • <i>Alvar species absent</i>
					Mixedwood	Dry to Fresh			k	Dry to Fresh Jack Pine Calcareous Mixedwood Treed Rockland	RLW-Tmk1	RLW-Tmk1 (B)	RLW-Tmk1 (G)	RLW-Tmk1 (S)	<ul style="list-style-type: none"> • Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) • Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> • Sparse to open treed communities • Understorey sparse to continuous • Jack pine is the lead species in the canopy, associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce • Eastern white pine and/or red pine may appear as associated species but will not be the lead in the canopy • <i>Alvar species absent</i>

History	System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
											n	Dry to Fresh White Pine Calcareous Mixedwood Treed Rockland	RLW-TMk2	RLW-TMk2 (B)	RLW-TMk2 (G)	RLW-TMk2 (S)	<ul style="list-style-type: none"> Sedimentary rock, with high calcareous content (e.g., limestone, dolostone) fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Eastern white pine associated with eastern hemlock, red maple, white oak, northern red oak, sugar maple, white ash, American basswood and eastern hop-hornbeam Alvar species absent
												Dry to Fresh White Cedar Calcareous Mixedwood Treed Rockland	RLW-TMk3	RLW-TMk3 (B)	RLW-TMk3 (G)	RLW-TMk3 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Eastern white cedar with sugar maple, eastern hemlock, green ash, and white ash Alvar species absent
												Dry to Fresh Red Cedar Calcareous Mixedwood Treed Rockland	RLW-TMk10		RLW-TMk10 (G)	RLW-TMk10 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Red cedar lead in canopy with red maple, sugar maple and/or eastern hop-hornbeam Alvar species absent
												Dry to Fresh Oak +/- Maple Calcareous Mixedwood Treed Rockland	RLW-TMk4	RLW-TMk4 (B)	RLW-TMk4 (G)	RLW-TMk4 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Mix of oak and maple leads in canopy, often including eastern white pine American basswood, white ash and eastern hop-hornbeam associates Alvar species absent
												Dry to Fresh Calcareous Mixedwood Treed Rockland	RLW-TMk5	RLW-TMk5 (B)	RLW-TMk5 (G)	RLW-TMk5 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from level to variable, typically more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Alvar species absent
												Dry to Fresh Non-Calcareous Mixedwood Treed Rockland	RLW-TMn1	RLW-TMn1 (B)	RLW-TMn1 (G)	RLW-TMn1 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Alvar species absent
												Dry to Fresh Oak +/- Maple Non-Calcareous Mixedwood Treed Rockland	RLW-TMn2	RLW-TMn2 (B)	RLW-TMn2 (G)	RLW-TMn2 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid, pH (<7.5) Variable bedrock surface Rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Mix of oak and maple leads in canopy, often including eastern white pine American basswood, white ash and eastern hop-hornbeam associates Alvar species absent
												Dry to Fresh Jack Pine +/- Pitch Pine Non-Calcareous Mixedwood Treed Rockland	RLW-TMn3	RLW-TMn3 (B)	RLW-TMn3 (G)	RLW-TMn3 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Jack pine and/or pitch pine are the lead species in the canopy, associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce Eastern white pine and/or red pine may appear as associated species but will not be the lead in the canopy Alvar species absent
												Dry to Fresh White Pine +/- Red Pine Non-Calcareous Mixedwood Treed Rockland	RLW-TMn4	RLW-TMn4 (B)	RLW-TMn4 (G)	RLW-TMn4 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Eastern white pine and/or red pine associated with eastern hemlock, red maple, white oak, northern red oak, sugar maple, white ash, American basswood and eastern hop-hornbeam Alvar species absent
												Dry to Fresh White Cedar Non-Calcareous Mixedwood Treed Rockland	RLW-TMn5	RLW-TMn5 (B)	RLW-TMn5 (G)	RLW-TMn5 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Eastern white cedar with sugar maple, eastern hemlock, green ash, and white ash Alvar species absent
												Dry to Fresh Red Cedar Non-Calcareous Mixedwood Treed Rockland	RLW-TMn10		RLW-TMn10 (G)	RLW-TMn10 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Red cedar lead in canopy with red maple, sugar maple and/or eastern hop-hornbeam Alvar species absent

History System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
							Moist			k	Moist White Cedar Calcareous Mixedwood Treed Rockland	RLW-TMk6	RLW-TMk6 (B)	RLW-TMk6 (G)	RLW-TMk6 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern white cedar with sugar maple, eastern hemlock, green ash, white ash, black ash, red maple, yellow birch, paper birch and/or eastern white pine- Alvar species absent
											Moist Red Cedar Calcareous Mixedwood Treed Rockland	RLW-TMk11		RLW-TMk11 (G)	RLW-TMk11 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Red cedar often inhabits marginal sites that have a legacy of land use and disturbance- Alvar species absent
											Moist Hemlock Calcareous Mixedwood Treed Rockland	RLW-TMk7	RLW-TMk7 (B)	RLW-TMk7 (G)	RLW-TMk7 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern hemlock with sugar maple, eastern white pine, red maple, American beech, white ash, yellow birch, balsam fir, eastern white cedar white oak and/or northern red oak- Alvar species absent
											Moist Maple Calcareous Mixedwood Treed Rockland	RLW-TMk8	RLW-TMk8 (B)	RLW-TMk8 (G)	RLW-TMk8 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Maple lead in canopy (likely red maple) with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, eastern white cedar, black ash, paper birch, green ash and/or eastern white pine- Alvar species absent
											Moist Calcareous Mixedwood Treed Rockland	RLW-TMk9	RLW-TMk9 (B)	RLW-TMk9 (G)	RLW-TMk9 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from level to variable, typically more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys- Alvar species absent
										n	Moist White Cedar Non-Calcareous Mixedwood Treed Rockland	RLW-TMn6	RLW-TMn6 (B)	RLW-TMn6 (G)	RLW-TMn6 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern white cedar with sugar maple, eastern hemlock, green ash, white ash, black ash, red maple, yellow birch, paper birch and/or eastern white pine- Alvar species absent
											Moist Red Cedar Non-Calcareous Mixedwood Treed Rockland	RLW-TMn11		RLW-TMn11 (G)	RLW-TMn11 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Red cedar often inhabits marginal sites that have a legacy of land use and disturbance- Alvar species absent
											Moist Hemlock Non-Calcareous Mixedwood Treed Rockland	RLW-TMn7	RLW-TMn7 (B)	RLW-TMn7 (G)	RLW-TMn7 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Eastern hemlock with sugar maple, eastern white pine, red maple, American beech, white ash, yellow birch, balsam fir, eastern white cedar white oak and/or northern red oak- Alvar species absent
											Moist Maple Non-Calcareous Mixedwood Treed Rockland	RLW-TMn8	RLW-TMn8 (B)	RLW-TMn8 (G)	RLW-TMn8 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Maple lead in canopy (likely red maple) with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, eastern white cedar, black ash, paper birch, green ash and/or eastern white pine- Alvar species absent
											Moist Non-Calcareous Mixedwood Treed Rockland	RLW-TMn9	RLW-TMn9 (B)	RLW-TMn9 (G)	RLW-TMn9 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys- Alvar species absent
						Hardwood	Dry to Fresh			k	Dry to Fresh Poplar +/- Birch Calcareous Hardwood Treed Rockland	RLW-THk1	RLW-THk1 (B)	RLW-THk1 (G)	RLW-THk1 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates- Alvar species absent
											Dry to Fresh Oak Calcareous Hardwood Treed Rockland	RLW-THk2	RLW-THk2 (B)	RLW-THk2 (G)	RLW-THk2 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates- Alvar species absent
											Dry to Fresh Bur Oak Calcareous Hardwood Treed Rockland	RLW-THk3	RLW-THk3 (B)	RLW-THk3 (G)	RLW-THk3 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Bur oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates- Alvar species absent
											Dry to Fresh Sugar Maple Calcareous Hardwood Treed Rockland	RLW-THk4	RLW-THk4 (B)	RLW-THk4 (G)	RLW-THk4 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen- Alvar species absent
											Dry to Fresh Niagara Escarpment Sugar Maple Calcareous Hardwood Treed Rockland	RLW-THk5			RLW-THk5 (S)	<ul style="list-style-type: none">- Sedimentary rock along Niagara escarpment (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen- Alvar species absent
											Dry to Fresh Red Maple Calcareous Hardwood Treed Rockland	RLW-THk6	RLW-THk6 (B)	RLW-THk6 (G)	RLW-THk6 (S)	<ul style="list-style-type: none">- Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)- Ranges from nearly level to variable- Usually more fractured and variable than alvars	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- Red maple lead with northern red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates- Alvar species absent

History System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
											GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										n	Dry to Fresh Calcareous Hardwood Treed Rockland	RLW-THk7	RLW-THk7 (B)	RLW-THk7 (G)	RLW-THk7 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Alvar species absent
										n	Dry to Fresh Oak Non-Calcareous Hardwood Treed Rockland	RLW-THn1	RLW-THn1 (B)	RLW-THn1 (G)	RLW-THn1 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Alvar species absent
											Dry to Fresh Poplar +/- Birch Non-Calcareous Hardwood Treed Rockland	RLW-THn2	RLW-THn2 (B)	RLW-THn2 (G)	RLW-THn2 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates Alvar species absent
											Dry to Fresh Maple Non-Calcareous Hardwood Treed Rockland	RLW-THn3	RLW-THn3 (B)	RLW-THn3 (G)	RLW-THn3 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Maple lead with red oak, white oak, black oak, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates Alvar species absent
											Dry to Fresh Non-Calcareous Hardwood Treed Rockland	RLW-THn4	RLW-THn4 (B)	RLW-THn4 (G)	RLW-THn4 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Alvar species absent
					Moist					k	Moist Poplar +/- Birch Calcareous Hardwood Treed Rockland	RLW-THk8	RLW-THk8 (B)	RLW-THk8 (G)	RLW-THk8 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates Alvar species absent
											Moist Oak Calcareous Hardwood Treed Rockland	RLW-THk9	RLW-THk9 (B)	RLW-THk9 (G)	RLW-THk9 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Alvar species absent
											Moist Bur Oak Calcareous Hardwood Treed Rockland	RLW-THk13	RLW-THk13 (B)	RLW-THk13 (G)	RLW-THk13 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Bur oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Alvar species absent
											Moist Red Maple Calcareous Hardwood Treed Rockland	RLW-THk10	RLW-THk10 (B)	RLW-THk10 (G)	RLW-THk10 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates Alvar species absent
											Moist Sugar Maple Calcareous Hardwood Treed Rockland	RLW-THk14	RLW-THk14 (B)	RLW-THk14 (G)	RLW-THk14 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Alvar species absent
											Moist Niagara Escarpment Sugar Maple Calcareous Hardwood Treed Rockland	RLW-THk15			RLW-THk15 (S)	<ul style="list-style-type: none"> Sedimentary rock along the Niagara escarpment (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Alvar species absent
											Moist Ash Calcareous Hardwood Treed Rockland	RLW-THk11	RLW-THk11 (B)	RLW-THk11 (G)	RLW-THk11 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Ash species are lead in canopy; associates are variable Alvar species absent
											Moist Calcareous Hardwood Treed Rockland	RLW-THk12	RLW-THk12 (B)	RLW-THk12 (G)	RLW-THk12 (S)	<ul style="list-style-type: none"> Sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Ranges from nearly level to variable Usually more fractured and variable than alvars 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Alvar species absent
										n	Moist Poplar +/- Birch Non-Calcareous Hardwood Treed Rockland	RLW-THn5	RLW-THn5 (B)	RLW-THn5 (G)	RLW-THn5 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates Alvar species absent
											Moist Oak Non-Calcareous Hardwood Treed Rockland	RLW-THn6	RLW-THn6 (B)	RLW-THn6 (G)	RLW-THn6 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Oak lead with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Alvar species absent
											Moist Maple Non-Calcareous Hardwood Treed Rockland	RLW-THn7	RLW-THn7 (B)	RLW-THn7 (G)	RLW-THn7 (S)	<ul style="list-style-type: none"> Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure 	<ul style="list-style-type: none"> Sparse to open treed communities Understorey sparse to continuous Maple lead with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Alvar species absent

History System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics		
											Moist Non-Calcareous Hardwood Treed Rockland	RLW-THn8	RLW-THn8 (B)	RLW-THn8 (G)	RLW-THn8 (S)	<ul style="list-style-type: none">- Igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)- Variable bedrock surface, rolling rock knob and hollow, rock reef to block and fissure	<ul style="list-style-type: none">- Sparse to open treed communities- Understorey sparse to continuous- This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys- Alvar species absent		
Prairie																<p>In Ontario, prairies are remnants of a warmer and drier historical period when mid-west grasslands got established, and were later maintained by First Nations communities and natural sources of ignition. Occurring on coarser and sandier substrates, these landscapes were subject to long periods of drought, making them susceptible to fire.</p>	<p>While substrates may vary, the importance of recurring fire has selected for certain herbaceous and woody species, and the occurrence of this unique prairie flora is most diagnostic for this ecosystem. The level of woody species establishment is dependent on severity and duration between fires, with many areas having widely spaced, open grown trees, called savannas (<35% tree cover) and prairie woodlands (35-60% cover).</p>		
Open Prairie																<p>Open herbaceous prairies are maintained by recurring fire disturbances primarily, and secondarily by extremes in moisture, being either very droughty or prone to flooding.</p>	<p>It is primarily the prairie flora which distinguishes these communities, which are mostly grassland species, along with some characteristic forbs. Open prairies have less than 10% tree cover and / or less than 25% shrub cover.</p>		
											Dry	Dry Prairie	PRO-Nd1			PRO-Nd1 (S)	<ul style="list-style-type: none">- Well drained substrate characterised by coarser, sandy materials	<ul style="list-style-type: none">- Dominated by grasses and herbs- Disturbances (fire, flood, drought) limit growth of woody vegetation	
											Dry to Fresh	Dry to Fresh Prairie	PRO-Nd2			PRO-Nd2 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought	<ul style="list-style-type: none">- Dominated by grasses and herbs- Disturbances (fire, flood, drought) limit growth of woody vegetation	
											Moist	Moist Prairie	PRO-Nf1			PRO-Nf1 (S)	<ul style="list-style-type: none">- Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation	<ul style="list-style-type: none">- Dominated by grasses and herbs- Disturbances (fire, flood, drought) limit growth of woody vegetation	
Woody Prairie																<p>Woody prairies occur where the ecological factors maintaining the open prairie flora are diminished enough to allow the establishment and growth of woody species able to tolerate recurring light fires.</p>	<p>The extremes in the environment along with recurring light fires gives rise to a community with larger, open grown and widely spaced trees along with all the herbaceous prairie ground layer species. Historically the gradient in tree cover found in prairie landscapes were called savannas (10-35% cover) and prairie woodlands (35-60%).</p>		
											Shrub	Dry	Dry Low Prairie Shrubland	PRW-Sd1			PRW-Sd1 (S)	<ul style="list-style-type: none">- Well drained substrate characterised by coarser, sandy materials	<ul style="list-style-type: none">- Dominated by shrubs and grasses- Disturbances (fire, flood, drought) limit establishment of trees- Herbaceous prairie ground layer species present
												Dry to Fresh	Dry to Fresh Low Prairie Shrubland	PRW-Sd2			PRW-Sd2 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought	<ul style="list-style-type: none">- Dominated by shrubs and grasses- Disturbances (fire, flood, drought) limit establishment of trees- Herbaceous prairie ground layer species present
													Dry to Fresh Prairie Shrubland	PRW-Sf1			PRW-Sf1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought	<ul style="list-style-type: none">- Dominated by shrubs and grasses- Disturbances (fire, flood, drought) limit establishment of trees- Herbaceous prairie ground layer species present
												Moist	Moist Prairie Shrubland	PRW-Sf2			PRW-Sf2 (S)	<ul style="list-style-type: none">- Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation	<ul style="list-style-type: none">- Dominated by shrubs and grasses- Disturbances (fire, flood, drought) limit establishment of trees- Herbaceous prairie ground layer species present

History System	Community Class	Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
					Savanna & Woodland		Dry to Fresh				Dry to Fresh Oak Tall Treed Savanna	PRW-Td1			PRW-Td1 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought 	<ul style="list-style-type: none"> • Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak • Canopy is sparse to open
											Dry to Fresh Oak + Pine Savanna	PRW-Td2			PRW-Td2 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought 	<ul style="list-style-type: none"> • Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak, and pines may include eastern white pine, red pine or pitch pine • Canopy is sparse to open
											Dry to Fresh Oak Prairie Woodland	PRW-Tf1			PRW-Tf1 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought 	<ul style="list-style-type: none"> • Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak • Canopy is sparse to moderate
							Moist				Moist Prairie Woodland	PRW-Tf2			PRW-Tf2 (S)	<ul style="list-style-type: none"> • Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation 	<ul style="list-style-type: none"> • Variable species of tall trees including oak, pine, poplar • Canopy is sparse to moderate
					Meadow											<p>Meadows are open herbaceous communities that, while still being controlled locally by terrestrial ecological gradients, are more a vegetation response to land use or disturbance. In a dynamic landscape, catastrophic disturbances (e.g., tornado, fire) lead to secondary successional responses in the vegetation, much like areas having anthropogenic management and disturbances do when left (e.g., agriculture, pasture).</p>	<p>Meadows are a normal and naturalizing part of the landscape, involving secondary succession, where community assembly is a result of local seed source response to local environmental conditions, and may be made up of weedy introduced species. A meadow is distinguished by having a natural or naturalized vegetation composition, along normal ecological gradients, establishing in an area after historical land use or disturbances.</p>
					Open Meadow											<p>Open herbaceous meadows occur where there has been the least amount of time since last management or disturbance, where woody vegetation is still less than 10%. Species present and composition arises naturally and spontaneously from local seed banks and sources, following community assembly along natural gradients of soil texture and moisture. While a natural meadow is distinguished here based on natural processes, the composition can be made up of introduced or weedy species, as well as native species.</p>	<p>Species present and composition arises naturally and spontaneously from local seed banks and sources, following community assembly along natural gradients of soil texture and moisture. While a natural meadow is distinguished here based on natural processes, the composition can be made up of introduced or weedy species, as well as native species.</p>
							Dry to Fresh	Coarse		k	Dry to Fresh Coarse Calcareous Open Meadow	MEO-k1	MEO-k1 (B)	MEO-k1 (G)	MEO-k1 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought • Sandy and coarse loamy textured substrates >5 cm deep • Material fizzes with acid, indicating presence of free carbonates • Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession • Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
										n	Dry to Fresh Coarse Non-Calcareous Open Meadow	MEO-n1	MEO-n1 (B)	MEO-n1 (G)	MEO-n1 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought • Sandy and coarse loamy textured substrates >5 cm deep • No fizz with acid, no free carbonates in material • Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession • Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
								Fine		k	Dry to Fresh Fine Calcareous Open Meadow	MEO-k2	MEO-k2 (B)	MEO-k2 (G)	MEO-k2 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought • Fine loamy and clayey textured substrates >5 cm deep • Material fizzes with acid, indicating presence of free carbonates • Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession • Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
										n	Dry to Fresh Fine Non-Calcareous Open Meadow	MEO-n2	MEO-n2 (B)	MEO-n2 (G)	MEO-n2 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought • Fine loamy and clayey textured substrates >5 cm deep • No fizz with acid, no free carbonates in material • Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession • Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
						Moist	Coarse		k	Moist Coarse Calcareous Open Meadow	MEO-k3	MEO-k3 (B)	MEO-k3 (G)	MEO-k3 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
									n	Moist Coarse Non-Calcareous Open Meadow	MEO-n3	MEO-n3 (B)	MEO-n3 (G)	MEO-n3 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
							Fine		k	Moist Fine Calcareous Open Meadow	MEO-k4	MEO-k4 (B)	MEO-k4 (G)	MEO-k4 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
									n	Moist Fine Non-Calcareous Open Meadow	MEO-n4	MEO-n4 (B)	MEO-n4 (G)	MEO-n4 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey substrates >5 cm No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the early stages of succession Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc.
Woody Meadow															Woody meadows represent the most time since historic land use or management, when woody species begin to get established as part of secondary succession.	Woody meadow is meant to distinguish those early woody communities that are still under 25% cover, and the ground layer is still Predominantly meadow species, often appearing as a meadow with a few scattered and open grown trees and shrubs.
				Shrub		Dry to Fresh	Coarse		k	Dry to Fresh Coarse Calcareous Shrub Meadow	MEW-Sk1	MEW-Sk1 (B)	MEW-Sk1 (G)	MEW-Sk1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Sandy and coarse loamy textured substrates >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Dry to Fresh Coarse Non-Calcareous Shrub Meadow	MEW-Sn1	MEW-Sn1 (B)	MEW-Sn1 (G)	MEW-Sn1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Sandy and coarse loamy textured substrates >5 cm deep No fizz with acid, no free carbonates in material Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
							Fine		k	Dry to Fresh Fine Calcareous Shrub Meadow	MEW-Sk2	MEW-Sk2 (B)	MEW-Sk2 (G)	MEW-Sk2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Fine loamy and clayey textured substrates >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Dry to Fresh Fine Non-Calcareous Shrub Meadow	MEW-Sn2	MEW-Sn2 (B)	MEW-Sn2 (G)	MEW-Sn2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Fine loamy and clayey textured substrates >5 cm deep No fizz with acid, no free carbonates in material Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
						Moist	Coarse		k	Moist Coarse Calcareous Shrub Meadow	MEW-Sk3	MEW-Sk3 (B)	MEW-Sk3 (G)	MEW-Sk3 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Moist Coarse Non-Calcareous Shrub Meadow	MEW-Sn3	MEW-Sn3 (B)	MEW-Sn3 (G)	MEW-Sn3 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
							Fine		k	Moist Fine Calcareous Shrub Meadow	MEW-Sk4	MEW-Sk4 (B)	MEW-Sk4 (G)	MEW-Sk4 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
				Treed		Dry to Fresh	Coarse		n	Moist Fine Non-Calcareous Shrub Meadow	MEW-Sn4	MEW-Sn4 (B)	MEW-Sn4 (G)	MEW-Sn4 (S)	<ul style="list-style-type: none"> Moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey substrates >5 cm No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Shrub ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									k	Dry to Fresh Coarse Calcareous Treed Meadow	MEW-Tk1	MEW-Tk1 (B)	MEW-Tk1 (G)	MEW-Tk1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Sandy and coarse loamy textured substrates >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Dry to Fresh Coarse Non-Calcareous Treed Meadow	MEW-Tn1	MEW-Tn1 (B)	MEW-Tn1 (G)	MEW-Tn1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Sandy and coarse loamy textured substrates >5 cm deep No fizz with acid, no free carbonates in material Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
							Fine		k	Dry to Fresh Fine Calcareous Treed Meadow	MEW-Tk2	MEW-Tk2 (B)	MEW-Tk2 (G)	MEW-Tk2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Fine loamy and clayey textured substrates >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Dry to Fresh Fine Non-Calcareous Treed Meadow	MEW-Tn2	MEW-Tn2 (B)	MEW-Tn2 (G)	MEW-Tn2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Fine loamy and clayey textured substrates >5 cm deep No fizz with acid, no free carbonates in material Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
						Moist	Coarse		k	Moist Coarse Calcareous Treed Meadow	MEW-Tk3	MEW-Tk3 (B)	MEW-Tk3 (G)	MEW-Tk3 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Moist Coarse Non-Calcareous Treed Meadow	MEW-Tn3	MEW-Tn3 (B)	MEW-Tn3 (G)	MEW-Tn3 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Sandy and coarse loamy textured substrates No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
							Fine		k	Moist Fine Calcareous Treed Meadow	MEW-Tk4	MEW-Tk4 (B)	MEW-Tk4 (G)	MEW-Tk4 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey textured substrates Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
									n	Moist Fine Non-Calcareous Treed Meadow	MEW-Tn4	MEW-Tn4 (B)	MEW-Tn4 (G)	MEW-Tn4 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Fine loamy and clayey substrates >5 cm No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly herbaceous vascular plant species associations where historical land use removed natural cover and site is in the earlier stages of succession with woody species ingress Old field or meadow species common, such as Goldenrods, Asters, grasses, clover, etc. Tree ingress is between 10 to 25% cover, yet enough to make the wooded meadow different habitat
Shrubland															Shrublands, much like meadows, while are locally controlled by terrestrial ecological gradients of texture and moisture, are more a mid-successional stage of recovery from a disturbance, flooding, or land use. Shrublands also often occur on historically flooded wetland verges and represent an intermediate stage of recovery once the water table has receded.	Unlike other more limited sites (e.g., barrens, shorelines) which typically have sparse woody cover, shrublands occur on less limited sites and have shrub cover greater than 25% (tree cover <10%). While some ecological factors can maintain some unique low shrub conditions, other richer sites are where clonal species may create tall thickets that are often made up of introduced or weedy species.
Low Shrubland															Low shrublands are reserved for those unique areas where some environmental constraint, like extreme drought, selects for certain tolerant species that maintain a low shrub (<2 m) cover greater than 25%.	When other limited ecosystems are disturbed, and their unique flora is lost (e.g., shorelines, barrens), often novel low shrub ecosystems arise and are maintained.
			Conifer/ Evergreen	Dry to Fresh					k	Dry to Fresh Common Juniper Calcareous Conifer Low Shrubland	SLL-Ck1			SLL-Ck1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Unconsolidated mineral materials >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Typically widely spaced low shrubs due to some kind of environmental limitation Low shrub (<2 m height) cover >25%

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
					Moist	Mixed	Dry to Fresh		n	Dry to Fresh Calcareous Evergreen Low Shrubland	SLL-Ck2			SLL-Ck2 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Dry to Fresh Non-Calcareous Evergreen Low Shrubland	SLL-Cn1			SLL-Cn1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									k	Moist Calcareous Evergreen Low Shrubland	SLL-Ck3			SLL-Ck3 (S)	<ul style="list-style-type: none">- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Moist Non-Calcareous Evergreen Low Shrubland	SLL-Cn2			SLL-Cn2 (S)	<ul style="list-style-type: none">- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									k	Dry to Fresh Common Juniper Calcareous Mixed Low Shrubland	SLL-Mk1			SLL-Mk1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Dry to Fresh Non-Calcareous Mixed Low Shrubland	SLL-Mn1			SLL-Mn1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Moist Non-Calcareous Mixed Low Shrubland	SLL-Mn2			SLL-Mn2 (S)	<ul style="list-style-type: none">- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									k	Dry to Fresh Calcareous Deciduous Low Shrubland	SLL-Hk1			SLL-Hk1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Dry to Fresh Non-Calcareous Deciduous Low Shrubland	SLL-Hn1			SLL-Hn1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									k	Moist Calcareous Deciduous Low Shrubland	SLL-Hk2			SLL-Hk2 (S)	<ul style="list-style-type: none">- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
									n	Moist Non-Calcareous Deciduous Low Shrubland	SLL-Hn2			SLL-Hn2 (S)	<ul style="list-style-type: none">- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions	<ul style="list-style-type: none">- Predominantly woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Typically widely spaced low shrubs due to some kind of environmental limitation- Low shrub (<2 m height) cover >25%
Thicket														Thickets occur on richer more productive sites able to support denser and often taller shrub growth.	Terrestrial thickets are more often a result of historical land use and represent an intermediate state of secondary succession. In such areas it is not the height of the shrubs that matter, but the composition of species and their capability.	
Natural				Conifer/ Evergreen	Dry to Fresh				k	Dry to Fresh Calcareous Coniferous / Evergreen Thicket	SLT-Ck2	SLT-Ck2 (B)	SLT-Ck2 (G)	SLT-Ck2 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- Material fizzes with acid, indicating presence of free carbonates- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Tall shrub (>2 m height) cover >25%- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
									n	Dry to Fresh Non-Calcareous Coniferous / Evergreen Thicket	SLT-Cn1	SLT-Cn1 (B)	SLT-Cn1 (G)	SLT-Cn1 (S)	<ul style="list-style-type: none">- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought- Unconsolidated mineral materials >5 cm deep- No fizz with acid, no free carbonates in material- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions	<ul style="list-style-type: none">- Tall shrub (>2 m height) cover >25%- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket

History	System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
							Moist			k	Moist Calcareous Coniferous / Evergreen Thicket	SLT-Ck3	SLT-Ck3 (B)	SLT-Ck3 (G)	SLT-Ck3 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Unconsolidated mineral materials >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
										n	Moist Non-Calcareous Coniferous / Evergreen Thicket	SLT-Cn2	SLT-Cn2 (B)	SLT-Cn2 (G)	SLT-Cn2 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Unconsolidated mineral materials >5 cm deep No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
						Mixedwood	Dry to Fresh			k	Dry to Fresh Calcareous Mixed Thicket	SLT-Mk1	SLT-Mk1 (B)	SLT-Mk1 (G)	SLT-Mk1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Unconsolidated mineral materials >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
										n	Dry to Fresh Non-Calcareous Mixed Thicket	SLT-Mn1	SLT-Mn1 (B)	SLT-Mn1 (G)	SLT-Mn1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought Unconsolidated mineral materials >5 cm deep No fizz with acid, no free carbonates in material Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
							Moist			k	Moist Calcareous Mixed Thicket	SLT-Mk2	SLT-Mk2 (B)	SLT-Mk2 (G)	SLT-Mk2 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Unconsolidated mineral materials >5 cm deep Material fizzes with acid, indicating presence of free carbonates Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
										n	Moist Non-Calcareous Mixed Thicket	SLT-Mn2	SLT-Mn2 (B)	SLT-Mn2 (G)	SLT-Mn2 (S)	<ul style="list-style-type: none"> Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation Unconsolidated mineral materials >5 cm deep No fizz with acid, no free carbonates in material Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket

History System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics										
						Deciduous	Dry to Fresh			k	Dry to Fresh Calcareous Deciduous Thicket	SLT-Dk1	SLT-Hk1 (B)	SLT-Hk1 (G)	SLT-Hk1 (S)	<div><div>- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought</div><div>- Unconsolidated mineral materials >5 cm deep</div><div>- Material fizzes with acid, indicating presence of free carbonates</div><div>- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions</div></div>	<div><div>- Tall shrub (>2 m height) cover >25%</div><div>- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress</div><div>- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket</div></div>										
										n	Dry to Fresh Non-Calcareous Deciduous Thicket	SLT-Dn1	SLT-Dn1 (B)	SLT-Dn1 (G)	SLT-Dn1 (S)	<div><div>- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought</div><div>- Unconsolidated mineral materials >5 cm deep</div><div>- No fizz with acid, no free carbonates in material</div><div>- Water shedding upper to middle slopes (1, 2, 3) or tableland (7) topographic positions</div></div>	<div><div>- Tall shrub (>2 m height) cover >25%</div><div>- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress</div><div>- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket</div></div>										
										k	Moist Calcareous Deciduous Thicket	SLT-Hk2	SLT-Hk2 (B)	SLT-Hk2 (G)	SLT-Hk2 (S)	<div><div>- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation</div><div>- Unconsolidated mineral materials >5 cm deep</div><div>- Material fizzes with acid, indicating presence of free carbonates</div><div>- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions</div></div>	<div><div>- Tall shrub (>2 m height) cover >25%</div><div>- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress</div><div>- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket</div></div>										
										n	Moist Non-Calcareous Deciduous Thicket	SLT-Dn2	SLT-Dn2 (B)	SLT-Dn2 (G)	SLT-Dn2 (S)	<div><div>- Fresh to moist moisture regimes (MR 3, 4, 5), excess seasonal moisture and/or short-term periodic inundation</div><div>- Unconsolidated mineral materials >5 cm deep</div><div>- No fizz with acid, no free carbonates in material</div><div>- Water accumulating middle to lower slopes (3, 4, 5) or poorly drained tableland (7) topographic positions</div></div>	<div><div>- Tall shrub (>2 m height) cover >25%</div><div>- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress</div><div>- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket</div></div>										
											Dry to Fresh Deciduous Thicket Hedgerow	SLT-HZ1			SLT-HZ1 (S)	<div><div>- Dry to fresh soil moisture regimes (MR = 0, 1, 2), subject to periodic drought</div></div>	<div><div>- Tall shrub (>2 m height) cover >25%</div><div>- Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress</div><div>- Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket</div></div>										
										Treed												<div>Tree cover is a continuum reflecting underlying ecological gradients and/or disturbance levels. While "sparsely treed" cover (<25%) is mostly relegated to extreme and limited environments, "treed" applies to landscapes that have tree species cover greater than 25%. Treed woodlands and forests occur across the deeper materialled landscape and composition aligns along depth, material texture, moisture, and fertility gradients. The useful separation of treed ecosystems based on physiognomic characteristics (i.e., hardwood, conifer, mixedwood) is helpful when interpreting imagery into patterns, in addition to reflecting ecological gradients.</div>	<div>With respects to succession, treed ecosystems represent the latter stages of vegetation recovery or successional stages, which also go through intolerant, then mid-tolerant, and finally shade-tolerant tree species associations and succession. Conifer treed must have >75% conifer species, hardwood treed must have >75% hardwood species, and mixedwood treed must have 25% to 75% conifer and hardwood species. High conifer cover typically means the more extreme parts of gradients (cool or hot, dry or wet), high deciduous or hardwood cover means warmer, fresh, and richer conditions, while mixedwood cover is the transition along the gradients.</div>				
										Low Treed												<div>Low treed communities (<10 m) reflect one of two legacies, either intermediate in environmental severity leading to stunted growth in the trees, or where there is secondary woody succession after a disturbance that have novel or unique species compositions.</div>	<div>Low treed here has a restricted definition to those low treed communities maintained naturally by limitations usually giving rise to a unique flora. Furthermore, low treed is only applied to unique and often weedy associations that arise from anthropogenic disturbance and are naturalized in origin.</div>				
											Natural					Conifer	Dry				Dry Pine Conifer Low Treed	TRL-CNd1			TRL-CNd1 (S)	<div><div>- Dry soil moisture regime (MR = 0 or 1)</div><div>- On sands and coarse loams</div><div>- Typically on shallow soils (>15 cm coarse mineral) over non calcareous rock</div><div>- Upper to middle slope (1, 2, 3) and tableland (7) topographic positions</div></div>	<div><div>- Pine species lead in canopy, associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce</div></div>
																					Dry Red Cedar Conifer Low Treed	TRL-CNd2			TRL-CNd2 (S)	<div><div>- Dry soil moisture regime (MR = 0 or 1)</div><div>- On sands and coarse loams</div><div>- Substrate depth ranges from shallow (>15 cm coarse mineral over bedrock) to deep and sites are often calcareous</div><div>- Upper to middle slope (1, 2, 3) and tableland (7) topographic positions</div></div>	<div><div>- Canopy is almost exclusively red cedar</div><div>- Occasionally may include incidental hardwoods such as red maple, sugar maple and/or eastern hop-hornbeam</div></div>
																					Dry White Cedar Conifer Low Treed	TRL-CNd3			TRL-CNd3 (S)	<div><div>- Dry soil moisture regime (MR = 0 or 1)</div><div>- On sands and coarse loams</div><div>- Typically on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates</div></div>	<div><div>- Eastern white cedar with associates including balsam fir, eastern hemlock, jack pine, black spruce, white spruce, eastern white pine, paper birch, trembling aspen, white ash, sugar maple, American basswood, and/or balsam poplar</div><div>- Typically minimal shrub cover</div></div>
	Dry Spruce Conifer Low Treed	TRL-CNd4			TRL-CNd4 (S)	<div><div>- Dry soil moisture regime (MR = 0 or 1)</div><div>- On sands and coarse loams</div><div>- Typically on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates</div></div>	<div><div>- Spruce lead in canopy</div><div>- Associates are variable</div></div>																				
	Dry Conifer Low Treed	TRL-CNd5			TRL-CNd5 (S)	<div><div>- Dry soil moisture regime (MR = 0 or 1)</div><div>- On sands and coarse loams</div><div>- Typically on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates</div></div>	<div><div>- This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys</div></div>																				

History System Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Naturalized			Conifer					Naturalized Conifer Low Treed Plantation	TRL-CZ1			TRL-CZ1 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Pine planted in visible rows with >30% ingress and no clear evidence that the site is still being maintained
								Naturalized Conifer Low Treed Regeneration	TRL-CZ2			TRL-CZ2 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into other conifers
								Naturalized Conifer Low Treed Restoration	TRL-CZ3			TRL-CZ3 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative where conifers were the planted species
								Naturalized Conifer Low Treed Hedgerow	TRL-CZ4			TRL-CZ4 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide • Primarily conifer species
Natural			Mixedwood	Dry				Dry Pine + Oak Mixed Low Treed	TRL-MNd1			TRL-MNd1 (S)	• Dry soil moisture regime (MR = 0 or 1) • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) • Topographic positions	• Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak, and pines may include eastern white pine, red pine or pitch pine • Canopy is typically open
Naturalized			Mixedwood					Naturalized Mixedwood Low Treed Plantation	TRL-MZ1			TRL-MZ1 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained • Includes sites that were clearly once a conifer plantation (i.e., only the conifers are in rows), but canopy cover is now <75% conifer due to succession of hardwood species
								Naturalized Mixedwood Low Treed Regeneration	TRL-MZ2			TRL-MZ2 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a mixedwood community
								Naturalized Mixedwood Low Treed Restoration	TRL-MZ3			TRL-MZ3 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative where conifers and hardwoods were planted
								Naturalized Mixedwood Low Treed Hedgerow	TRL-MZ4			TRL-MZ4 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide
Naturalized			Hardwood					Naturalized Hardwood Low Treed Plantation	TRL-HZ1			TRL-HZ1 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained
								Naturalized Hardwood Low Treed Regeneration	TRL-HZ2			TRL-HZ2 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative
								Naturalized Hardwood Low Treed Restoration	TRL-HZ3			TRL-HZ3 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a hardwood community
								Naturalized Hardwood Low Treed Hedgerow	TRL-HZ4			TRL-HZ4 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Treed (Tall)															Treed ecosystems occur where ecological gradients are least severe and can support larger and taller treed species assemblages that exceed 25% cover. Natural open to closed woodlands and forests sort out along local climate, soil depth, texture, moisture, and fertility gradients, which select for certain species associations. Recurring species associations along such gradients represent natural treed vegetation types, that are latter successional stages of vegetation development on deeper, richer sites.	Natural open to closed woodlands and forests sort out along local climate, soil depth, texture, moisture, and fertility gradients, which select for certain species associations. Recurring species associations along such gradients represent natural treed vegetation types, that are latter successional stages of vegetation development on deeper, richer sites.
Natural										Dry, Sandy: Red Pine · White Pine Conifer	B033, G033	B033	G033		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Eastern white and red pine ≥ 20% absolute cover · May include white spruce, white birch, balsam fir, and red maple, understory with balsam fir, red maple, and eastern white pine · Abundant ericaceous shrubs, herb moderately poor, ground surface mostly conifer litter, feathermoss, and lichen
										Dry, Sandy: Jack Pine – Black Spruce Dominated	B034, G034	B034	G034		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Jack pine and/or black spruce usually 80% cover of the total tree species with white birch trembling aspen and balsam fir limited to ≤ 20% · Shrubs moderately poor, typically abundant ericaceous shrubs, herb poor, ground surface mostly conifer litter, feathermoss, and lichen
										Dry, Sandy: Pine · Black Spruce Conifer	B035, G035	B035	G035		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Pines (i.e., jack, eastern white, red, and scotch pine) and/or black spruce, often mixed with trembling aspen, white birch, and balsam fir · Shrub moderately poor, herb poor, ground surface mostly conifer litter, feathermoss, and other mosses
										Dry, Sandy: Cedar · (Hemlock) Conifer	B036, G036	B036	G036		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Eastern hemlock (rare in boreal) and eastern white cedar · May contain yellow birch, white birch, balsam fir, eastern white pine, red maple, white spruce, and sugar maple · Shrub and herb variable from poor to moderately rich
										Dry, Sandy: Spruce · Fir Conifer	B037, G037	B037	G037		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Spruce (usually white but sometimes red and/or black) and balsam fir · May contain white birch, trembling aspen, yellow birch, and eastern white cedar, understory tree species consisting of moderate levels of balsam fir, white spruce, and red maple · Shrub and herb variable from poor to moderately rich
										Dry, Sandy: Conifer	B038, G038	B038	G038		<ul style="list-style-type: none"> · Substrate sandy with low nutrient and moisture holding capacity, very rapid to rapid drainage · Moisture regime dry (MR = 0, 0 or 1) · Depth of substrate >15 cm, usually moderately deep to deep 	<ul style="list-style-type: none"> · Highly variable conifer-dominated with black spruce, balsam fir, eastern white cedar, white spruce, white birch, trembling aspen, red maple, sugar maple, and yellow birch
Dry to Fresh Coarse										Dry to Fresh, Coarse: Red Pine · White Pine Conifer	B048, G048	B048	G048		<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Commonly occurring on deep sandy deposits on the southern Great Lakes, or on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates on more northern sites · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Eastern white pine and/or red pine lead ≥ 20% absolute cover with associated balsam fir, white spruce, eastern white cedar, northern red oak, white oak, red maple, sugar maple, black cherry, paper birch, trembling aspen, and/or large-toothed aspen, however, conifer cover remains >75%
										Dry to Fresh, Coarse: Jack Pine · Black Spruce Dominated	B049, G049	B049	G049		<ul style="list-style-type: none"> · Substrate sandy to coarse loamy, low nutrient and moisture holding capacity · Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) · Depth of substrate >15 cm, generally moderately deep to deep · Typically uniform in nutrient availability with variable moisture due to inconsistency of substrate depth over bedrock 	<ul style="list-style-type: none"> · Jack pine and/or black spruce often > 90% cover with associates including white birch, balsam fir, red pine, eastern white pine, and trembling aspen · Shrub moderately poor, ericaceous shrubs typically abundant, herb poor, ground surface mostly conifer litter with occurrences of feathermoss and variable stones
										Dry to Fresh, Coarse: Pine · Black Spruce Conifer	B050, G050	B050	G050		<ul style="list-style-type: none"> · Substrate sandy to coarse loamy, low nutrient and moisture holding capacity · Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) · Depth of substrate >15 cm, generally moderately deep to deep, typically uniform in nutrient availability with variable moisture due to inconsistency of substrate depth over bedrock 	<ul style="list-style-type: none"> · Pines (usually jack pine, also eastern white, red, and scotch pine) and/or black spruce · Possible associates include white birch, balsam fir, and red maple · Shrub moderately poor, ericaceous shrubs abundant, herb poor, ground surface mostly conifer litter with occurrences of feathermoss and variable stones
										Dry to Fresh, Coarse: Cedar · (Hemlock) Conifer	B051, G051	B051	G051		<ul style="list-style-type: none"> · Substrate sandy to coarse loamy, low nutrient and moisture holding capacity · Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) · Depth of substrate >15 cm, generally moderately deep to deep 	<ul style="list-style-type: none"> · Eastern white cedar and/or eastern hemlock (rare in boreal) · May contain balsam fir, white birch, yellow birch, white spruce, red maple, black spruce, and sugar maple, moderate understory with balsam fir, eastern hemlock, red maple, sugar maple, and yellow birch · Shrub and herb moderately rich
										Dry to Fresh, Coarse: Spruce · Fir Conifer	B052, G052	B052	G052		<ul style="list-style-type: none"> · Substrate sandy to coarse loamy · Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) · Depth of substrate >15 cm, generally moderately deep to deep · Typically uniform in nutrient availability with variable moisture due to inconsistency of substrate depth over bedrock 	<ul style="list-style-type: none"> · Spruce (typically white but also black and/or red) and/or balsam fir · May contain other species including white birch, red maple, and trembling aspen, understory tree species consisting of moderate levels of balsam fir · Shrub and herb moderately poor, ground surface mostly conifer litter
										Dry to Fresh, Coarse: Conifer	B053, G053	B053	G053		<ul style="list-style-type: none"> · Substrate sandy to coarse loamy, low nutrient and moisture holding capacity · Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) · Depth of substrate >15 cm, generally moderately deep to deep 	<ul style="list-style-type: none"> · Highly variable conifer-dominated with black spruce, balsam fir, eastern white cedar, white spruce, and tamarack · May contain associates white birch, trembling aspen, red maple, sugar maple · Shrub and herb poor, ground surface mostly conifer and broadleaf litter
Dry to Fresh Coarse Mineral Conifer Treed										TRT-CNd1				TRT-CNd1 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys

History System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
											GLSE Ecosite					
											TRT-CNd2			TRT-CNd2 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Typically on shallow soils (>15 cm coarse mineral) over non calcareous rock · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Pine species other than eastern white pine or red pine lead in canopy (i.e., jack pine or pitch pine) · Associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce · Eastern white pine and/or red pine may appear as associated species but will not be the lead in the canopy
											TRT-CNd3			TRT-CNd3 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Commonly occurring on deep sandy deposits on the southern Great Lakes, or on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates on more northern sites · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Eastern white pine and/or red pine lead with associated balsam fir, white spruce, eastern white cedar, northern red oak, white oak, red maple, sugar maple, black cherry, paper birch, trembling aspen, and/or large-toothed aspen, however, conifer cover remains >75%
											TRT-CNd4			TRT-CNd4 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Typically on shallow (> 15 cm mineral material over bedrock) to moderately deep substrates 	<ul style="list-style-type: none"> · Eastern white cedar with associates including balsam fir, eastern hemlock, jack pine, black spruce, white spruce, eastern white pine, paper birch, trembling aspen, white ash, sugar maple, American basswood, and/or balsam poplar · Typically minimal shrub cover
											TRT-CNd9			TRT-CNd9 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Substrate depth ranges from shallow (>15 cm coarse mineral over bedrock) to deep and sites are often calcareous · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Canopy is almost exclusively red cedar · Occasionally may include incidental hardwoods such as red maple, sugar maple and/or eastern hop-hornbeam
											TRT-CNd5			TRT-CNd5 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On sands and coarse loams · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · White spruce with associated eastern white cedar, balsam fir, eastern white pine, eastern hop-hornbeam, red cedar, white ash, trembling aspen, balsam poplar, and/or paper birch
											TRT-CNd6			TRT-CNd6 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On fine loamy substrates · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
											TRT-CNd7			TRT-CNd7 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On fine loamy substrates · Typically on shallow soils (>15 cm coarse mineral) over non calcareous rock · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Pine species lead in canopy, with associates including balsam fir, black spruce, white spruce, eastern white cedar, northern red oak, white oak, red maple, sugar maple, black cherry, paper birch, trembling aspen, and/or large-toothed aspen
											TRT-CNd8			TRT-CNd8 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · Substrate depth ranges from shallow (>15 cm coarse mineral over bedrock) to deep and sites are often calcareous · On fine loamy substrates that are typically shallow to moderately deep 	<ul style="list-style-type: none"> · Eastern white cedar with associates including balsam fir, eastern hemlock, jack pine, black spruce, white spruce, eastern white pine, paper birch, trembling aspen, white ash, sugar maple, American basswood, and/or balsam poplar · Typically minimal shrub cover
											TRT-CNd10			TRT-CNd10 (S)	<ul style="list-style-type: none"> · Dry to fresh soil moisture regime (MR = 0, 1 or 2) · On fine loamy substrates · Substrate depth ranges from shallow (>15 cm coarse mineral over bedrock) to deep and sites are often calcareous · Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> · Canopy is almost exclusively red cedar · Occasionally may include incidental hardwoods such as red maple, sugar maple and/or eastern hop-hornbeam
											B097, G097	B097	G097		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3) · mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Eastern white and/or red pine ≥ 20% absolute cover with associates including white birch, red maple, black spruce, large-tooth aspen, balsam fir, eastern white cedar, and white spruce, understory tree species consisting of moderate levels of balsam fir, red maple, and eastern white pine · Shrub and herb moderately rich
											B098, G098	B098	G098		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Jack pine and black spruce often > 90% cover of tree species · May contain white birch, trembling aspen, balsam fir, red pine, and eastern white pine, understory tree species consisting of high levels of black spruce, balsam fir, red maple, and white birch · Shrub and herb moderately rich, ericaceous shrubs typically abundant
											B099, G099	B099	G099		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Pine (typically with jack pine, also eastern white, red, and scotch pine) and black spruce · May contain balsam fir, white birch, trembling aspen, eastern white cedar and white spruce · Shrub and herb moderately rich
											B100, G100	B100	G100		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Eastern white cedar and/or eastern hemlock (rare in boreal) · May contain red maple, yellow birch, balsam fir, white spruce, and white birch · Shrub and herb moderately rich
											B101, G101	B101	G101		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Spruce (typically white, but also black and/or red) and balsam fir · May contain other species including white birch, eastern white cedar, trembling aspen, red maple, yellow birch and eastern white pine, understory tree species consisting of moderate levels of balsam fir, white birch, and trembling aspen · Shrub and herb moderately rich, ground surface mostly conifer and broadleaf litter
											B102, G102	B102	G102		<ul style="list-style-type: none"> · Substrate silty to fine loamy, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Highly variable conifer-dominated mixture of tamarack, white spruce, black spruce, balsam fir, jack pine, red maple, white birch, and eastern white cedar · Understory tree species consisting of moderate levels of balsam fir, red maple, and white spruce · Shrub and herb moderately rich
											B081, G081	B081	G081		<ul style="list-style-type: none"> · Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity · Substrate > 15 cm, mostly moderately deep to deep · Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> · Eastern white and red pine ≥ 20% absolute cover in canopy with associates balsam fir, white birch, sugar maple, red oak, trembling aspen, and white elm, moderate understory with balsam fir, red maple, and eastern white pine · Shrub and herb moderately rich

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Moist	Coarse									Fresh, Clayey: Black Spruce · Jack Pine Dominated	B082, G082	B082	G082		<ul style="list-style-type: none">· Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions	<ul style="list-style-type: none">· Jack pine and black spruce· May contain white birch, balsam fir, trembling aspen, and red pine, understory tree species consisting of high levels of black spruce, balsam fir, and white birch· Shrub and herb moderately rich
										Fresh, Clayey: Black Spruce · Pine Conifer	B083, G083	B083	G083		<ul style="list-style-type: none">· Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions	<ul style="list-style-type: none">· Pine (typically jack pine, but also eastern white, red, and scotch pine) and black spruce· May contain white birch, trembling aspen, balsam fir, red maple, and white spruce· Shrub and herb moderately rich
										Fresh, Clayey: Cedar · (Hemlock) Conifer	B084, G084	B084	G084		<ul style="list-style-type: none">· Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions	<ul style="list-style-type: none">· Eastern white cedar and/or eastern hemlock (rare in boreal)· May contain yellow birch, balsam fir, red maple, white birch, sugar maple, and white spruce, understory tree species consisting of moderate levels of balsam fir, yellow birch, sugar maple, and red maple· Shrub and herb moderately rich
										Fresh, Clayey: Spruce · Fir Conifer	B085, G085	B085	G085		<ul style="list-style-type: none">· Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions	<ul style="list-style-type: none">· Spruce (typically white, but also black and/or red) and/or balsam fir lead in canopy with associates including white birch, trembling aspen, eastern white pine, and red maple, understory tree species consisting of moderate levels of balsam fir, white spruce, and red maple· Shrub and herb moderately rich
										Fresh, Clayey: Conifer	B086, G086	B086	G086		<ul style="list-style-type: none">· Substrate clayey, typically uniformly nutrient rich with good moisture holding capacity· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime fresh (MR ≤ 3), mostly on level, lower, or toe slopes or in depressions	<ul style="list-style-type: none">· Highly variable conifer-dominated canopy with tamarack, white spruce, black spruce, balsam fir, jack pine, and eastern white cedar· Possible associates including red maple, white birch· Shrub and herb moderately rich, ground surface mostly conifer and broadleaf litter
										Moist, Coarse: Red Pine · White Pine Conifer	B064, G064	B064	G064		<ul style="list-style-type: none">· Substrate sandy to coarse loamy, typically uniformly low in nutrient availability· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime moist (MR = 4 or 5), mostly on middle, lower, or level slope positions	<ul style="list-style-type: none">· Conifer canopy consisting of eastern white and red pine ≥ 20% absolute cover· May contain large-tooth aspen, white birch, red maple, white spruce, trembling aspen, and balsam fir, understory tree species consisting of moderate levels of balsam fir, red maple, and eastern white pine· Shrub and herb moderately poor, ground surface mostly conifer and broadleaf litter with occurrences of feathermoss and variable stones
										Moist, Coarse: Black Spruce · Pine Conifer	B065, G065	B065	G065		<ul style="list-style-type: none">· Substrate sandy to coarse loamy, typically uniformly low in nutrient availability· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime moist (MR = 4 or 5), mostly on middle, lower, or level slope positions	<ul style="list-style-type: none">· Pine (typically jack pine, but also eastern white, red, and scotch pine) and black spruce· May contain white birch, trembling aspen, balsam fir, red maple, and white spruce, understory tree species consisting of moderate levels of balsam fir, black spruce, and white birch· Shrub moderately poor, ericaceous shrubs abundant
										Moist, Coarse: Cedar · (Hemlock) Conifer	B066, G066	B066	G066		<ul style="list-style-type: none">· Substrate sandy to coarse loamy, typically uniformly low in nutrient availability· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime moist (MR = 4 or 5), mostly on middle, lower, or level slope positions	<ul style="list-style-type: none">· Eastern white cedar and/or eastern hemlock (rare in boreal)· Associates including yellow birch, balsam fir, red maple, white birch, sugar maple, and white spruce· Shrub moderately poor, herb moderately rich
										Moist, Coarse: Spruce · Fir Conifer	B067, G067	B067	G067		<ul style="list-style-type: none">· Substrate sandy to coarse loamy, typically uniformly low in nutrient availability· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime moist (MR = 4 or 5), mostly on middle, lower, or level slope positions	<ul style="list-style-type: none">· Spruce (typically white spruce, but also black and/or red spruce) and balsam fir· Associates including white birch, trembling aspen, red maple, black cherry, and yellow birch· Shrub and herb moderately poor
										Moist, Coarse: Conifer	B068, G068	B068	G068		<ul style="list-style-type: none">· Substrate sandy to coarse loamy, typically uniformly low in nutrient availability· Substrate > 15 cm, mostly moderately deep to deep· Moisture regime moist (MR = 4 or 5), mostly on middle, lower, or level slope positions	<ul style="list-style-type: none">· Highly variable conifer-dominated with tamarack, white spruce, black spruce, balsam fir, jack pine, eastern white cedar, associates including red maple, white birch, and· Shrub and herb poor, ground surface mostly conifer and broadleaf litter
										Moist Coarse Mineral Conifer Treed	TRT-CNf1			TRT-CNf1 (S)	<ul style="list-style-type: none">· Fresh to moist soil moisture regime (MR = 3, 4, or 5)· On sandy or coarse loamy substrates· Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (6)	<ul style="list-style-type: none">· This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
										Moist Hemlock Coarse Mineral Conifer Treed	TRT-CNf2			TRT-CNf2 (S)	<ul style="list-style-type: none">· Fresh to moist soil moisture regime (MR = 3, 4, or 5)· On sandy or coarse loamy substrates· Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (6)	<ul style="list-style-type: none">· Eastern hemlock dominated· Associates include eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and paper birch· Shrub, herb, and especially fern richness increases on moist sites
										Moist White Cedar Coarse Mineral Conifer Treed	TRT-CNf3			TRT-CNf3 (S)	<ul style="list-style-type: none">· Fresh to moist soil moisture regime (MR = 3, 4, or 5)· On sandy or coarse loamy sites with accumulating organic material· Middle to lower slopes (3, 4, 5), seepage areas and bottomlands (5, 6)· Typically associated with seepage	<ul style="list-style-type: none">· Eastern white cedar lead species in canopy, typically very dense and providing shade· Associates include red maple, American elm, eastern hemlock, balsam fir, black ash, and/or yellow birch· On more fresh sites associates may include white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash· Shrub and herb cover is very limited
										Moist Red Cedar Coarse Mineral Conifer Treed	TRT-CNf7			TRT-CNf7 (S)	<ul style="list-style-type: none">· Fresh to moist soil moisture regime (MR = 3, 4, or 5)· On sandy or coarse loamy substrates· Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (6)	<ul style="list-style-type: none">· Canopy is almost exclusively red cedar· Occasionally may include incidental hardwoods such as red maple, sugar maple and eastern hop-hornbeam
Fine										Moist, Fine: White Pine Conifer	B113, G113	B113	G113		<ul style="list-style-type: none">· Moist soil moisture regime (MR = 4 or 5)· Substrate silty, fine loamy to clayey· Substrate > 15 cm, mostly moderately deep· Mostly on middle or lower slopes or in depressions	<ul style="list-style-type: none">· Conifer canopy with ≥ 20% eastern white and red pine· May contain large-tooth aspen, balsam fir, white birch, eastern white cedar, and American basswood, understory tree species consisting of moderate levels of red maple, balsam fir, trembling aspen, and eastern white pine· Shrub and herb moderately rich, ground surface mostly conifer and broadleaf litter with occurrences of feathermoss
										Moist, Fine: Black Spruce · Pine Conifer	B114, G114	B114	G114		<ul style="list-style-type: none">· Moist soil moisture regime (MR = 4 or 5)· Substrate silty, fine loamy to clayey· Substrate > 15 cm, mostly moderately deep· Mostly on middle or lower slopes or in depressions	<ul style="list-style-type: none">· Pine (typically jack pine, but also eastern white, red, and/or scotch pine) and black spruce as leads in the canopy· May contain balsam fir, trembling aspen, white birch, and red maple· Shrub and herb moderately rich

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Moist, Fine: Cedar - (Hemlock) Conifer	B115, G115	B115	G115		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) Substrate silty, fine loamy to clayey Substrate > 15 cm, mostly moderately deep mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> Eastern white cedar and/or eastern hemlock (rare in boreal) Associates including balsam fir, white birch, trembling aspen, balsam poplar, yellow birch, and red maple Shrub and herb moderately rich
										Moist, Fine: Spruce - Fir Conifer	B116, G116	B116	G116		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) Substrate silty, fine loamy to clayey Substrate > 15 cm, mostly moderately deep mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> Spruce (typically white spruce, but also black and/or red spruce) and/or balsam fir Associates including trembling aspen, white birch, red maple and eastern white cedar Shrub and herb moderately rich
										Moist, Fine: Conifer	B117, G117	B117	G117		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) Substrate silty, fine loamy to clayey Substrate > 15 cm, mostly moderately deep mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> Highly variable conifer-dominated with black spruce, eastern white cedar, balsam fir, white spruce, tamarack, eastern white pine Shrub and herb moderately rich
										Moist Hemlock +/- White Cedar Coarse Mineral Conifer Treed	TRT-CNf4			TRT-CNf4 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty or clayey substrates Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (8) 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
										Moist Hemlock Fine Mineral Conifer Treed	TRT-CNf5			TRT-CNf5 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty or clayey substrates Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (8) 	<ul style="list-style-type: none"> Eastern hemlock dominated Associates include eastern white pine, balsam fir, eastern white cedar, yellow birch, sugar maple, green ash and paper birch Shrub, herb, and especially fern richness increases on moist sites
										Moist White Cedar Fine Mineral Conifer Treed	TRT-CNf6			TRT-CNf6 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty or clayey substrates with accumulating organic material Middle to lower slopes (3, 4, 5), seepage areas and bottomlands (5, 6) Typically associated with seepage 	<ul style="list-style-type: none"> Eastern white cedar lead species in canopy, typically very dense and providing shade Associates include red maple, American elm, eastern hemlock, balsam fir, black ash, and/or yellow birch On more fresh sites associates may include white spruce, paper birch, trembling aspen, balsam poplar, sugar maple, American basswood, and/or white ash Shrub and herb cover is very limited
										Moist Red Cedar Fine Mineral Conifer Treed	TRT-CNf8			TRT-CNf8 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty or clayey substrates Middle to lower slopes (3, 4, 5), seepage areas, bottomlands (5, 6) and tablelands with high water table and complex microtopography (8) 	<ul style="list-style-type: none"> Canopy is almost exclusively red cedar Occasionally may include incidental hardwoods such as red maple, sugar maple and eastern hop-hornbeam
				Mixedwood		Dry		Sandy		Dry, Sandy: Red Pine - White Pine Mixedwood	B039, G039	B039	G039		<ul style="list-style-type: none"> Dry (MR = 0, 0 or 1) On sandy substrates, moderately deep to deep Level, low, and middle slopes Typically low in nutrient and moisture availability 	<ul style="list-style-type: none"> Hardwood dominated with eastern white pine and/or red pine ≥ 20% absolute cover Substantial components of trembling aspen, white birch, jack pine, balsam fir, and black spruce Ground surface mostly broadleaf litter with conifer litter and moss
										Dry, Sandy: Mixedwood	B043, G043	B043	G043		<ul style="list-style-type: none"> Dry (MR = 0, 0 or 1) On sandy substrates, moderately deep to deep Level, low, and middle slopes Typically low in nutrient and moisture availability 	<ul style="list-style-type: none"> Highly variable hardwood canopy with sugar maple, American beech, American basswood, red oak, white birch, aspen, red maple, ironwood, and yellow birch Mixed with black spruce, white spruce, balsam fir, and jack pine Shrub and herb moderately rich
						Dry to Fresh		Coarse		Dry to Fresh, Coarse: Red Pine - White Pine Mixedwood	B054, G054	B054	G054		<ul style="list-style-type: none"> Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates, moderately deep to deep Often on upper, middle, or lower slopes positions Typically low in nutrient and moisture availability 	<ul style="list-style-type: none"> Hardwood dominated with ≥ 20% absolute cover by eastern white and/or red pine May contain large-tooth aspen, red maple, red oak, sugar maple, and white birch Shrub and herb moderately poor
										Dry to Fresh, Coarse: Mixedwood	B059, G059	B059	G059		<ul style="list-style-type: none"> Dry to fresh (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates, moderately deep to deep Often on upper, middle, or lower slopes positions Typically low in nutrient and moisture availability 	<ul style="list-style-type: none"> Highly variable hardwood canopy consisting of a mixture of maple, ash, aspen, birch, elm, and/or oak species, may be mixed with black spruce, balsam fir, white spruce, and jack pine. Shrub and herb moderately rich to poor
										Dry to Fresh Coarse Mineral Mixedwood Treed	TRT-MNd1			TRT-MNd1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On sands and coarse loams Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Typically has a legacy of disturbance, fire or marginal site conditions Vegetation is a heterogeneous mixture
										Dry to Fresh Hemlock Coarse Mineral Mixedwood Treed	TRT-MNd2			TRT-MNd2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sands and coarse loams but substrate may have finer silt and clay components Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Eastern hemlock with sugar maple, eastern white pine, red maple, American beech, white ash, yellow birch, balsam fir, eastern white cedar, white oak, eastern hop-hornbeam, and/or northern red oak
										Dry to Fresh White Pine +/- Red Pine Coarse Mineral Mixedwood Treed	TRT-MNd3			TRT-MNd3 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On sands and coarse loams Upper to middle slope (1, 2, 3) and tableland (7) topographic positions Commonly occurring on deep sandy deposits on the southern Great Lakes, with more of a shallow – moderately deep pattern on more northern sites 	<ul style="list-style-type: none"> Eastern white pine and/or red pine associated with eastern hemlock, red maple, white oak, northern red oak, sugar maple, white ash, American basswood and eastern hop-hornbeam
										Dry to Fresh Pine Coarse Mineral Mixedwood Treed	TRT-MNd4			TRT-MNd4 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On sands and coarse loams Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Pine species other than eastern white pine or red pine lead in canopy (i.e., jack pine or pitch pine) Associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce Eastern white pine and/or red pine may appear as associated species but will not be the lead in the canopy
										Dry to Fresh White Cedar Coarse Mineral Mixedwood Treed	TRT-MNd5			TRT-MNd5 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, or 2) On sands and coarse loams Slope positions and soil textures vary widely 	<ul style="list-style-type: none"> Eastern white cedar with sugar maple, eastern hemlock, green ash, and white ash Eastern white cedar stem count typically very high

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Dry to Fresh Red Cedar Coarse Mineral Mixedwood Treed	TRT-MNd21			TRT-MNd21 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1 or 2) • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> • Red cedar lead in canopy with red maple, sugar maple and/or eastern hop-hornbeam
										Dry to Fresh Aspen +/- White Birch Coarse Mineral Mixedwood Treed	TRT-MNd6			TRT-MNd6 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, or 2) • Substrate type widely variable but typically on sandy or loamy substrates • May suggests recent disturbance or management on the site; assess cultural legacy to determine if this ecosite should be in the "naturalized" section of the treed key 	<ul style="list-style-type: none"> • White birch (paper birch), trembling aspen and/or large-toothed aspen leads in canopy • Associates include eastern white cedar, balsam fir, white spruce, red maple, sugar maple, and eastern white pine • Shrub layer tends to be sparser
										Dry to Fresh Maple Coarse Mineral Mixedwood Treed	TRT-MNd7			TRT-MNd7 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1 or 2) though more likely to be found on fresh sites • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> • Maple lead in canopy (likely red maple) with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, and eastern white cedar
										Dry to Fresh Sugar Maple Coarse Mineral Mixedwood Treed	TRT-MNd8			TRT-MNd8 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1 or 2) • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> • Sugar maple with associated eastern white pine, eastern hemlock, American beech, red maple, American basswood, eastern hop-hornbeam, and white ash
										Dry to Fresh Oak + Pine Coarse Mineral Mixedwood Treed	TRT-MNd9			TRT-MNd9 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1 or 2) • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> • Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak, and pines may include eastern white pine, red pine or pitch pine • Canopy is typically open
										Dry to Fresh Oak + Pine + Maple Coarse Mineral Mixedwood Treed	TRT-MNd10			TRT-MNd10 (S)	<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1 or 2) • On sands and coarse loams • Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> • Mix of oak, pine and maple leads in canopy, often including eastern white pine with sugar maple, northern red oak and, to a lesser extent, white oak • Red maple, American basswood, white ash and eastern hop-hornbeam associates

History System	Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
					Dry to Fresh	Fine			Dry to Fresh Fine Mineral Mixedwood Treed	TRT-MNd11			TRT-MNd11 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On fine loamy, silty and clayey sites Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Typically has a legacy of disturbance, fire or marginal site conditions Vegetation is a heterogeneous mixture
									Dry to Fresh Hemlock Fine Mineral Mixedwood Treed	TRT-MNd12			TRT-MNd12 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On fine loamy, silty and clayey sites Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Eastern hemlock with sugar maple, eastern white pine, red maple, American beech, white ash, yellow birch, balsam fir, eastern white cedar, white oak, eastern hop-hornbeam, and/or northern red oak
									Dry to Fresh Pine Fine Mineral Mixedwood Treed	TRT-MNd13			TRT-MNd13 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On loamy or silty substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Pine species other than eastern white pine or red pine lead in canopy (i.e., jack pine or pitch pine) Associates may include eastern white cedar, northern red oak, white oak, eastern hemlock, red maple, paper birch, balsam fir, white spruce, and/or black spruce Eastern white pine and/or red pine may appear as associated species but will not be the lead in the canopy
									Dry to Fresh White Pine +/- Red Pine Fine Mineral Mixedwood Treed	TRT-MNd14			TRT-MNd14 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On fine loamy and clayey substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Eastern white pine and/or red pine associated with eastern hemlock, red maple, white oak, northern red oak, sugar maple, white ash, American basswood and eastern hop-hornbeam
									Dry to Fresh White Cedar Fine Mineral Mixedwood Treed	TRT-MNd15			TRT-MNd15 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, or 2) On fine loamy, silty and clayey sites Slope positions and soil textures vary widely 	<ul style="list-style-type: none"> Eastern white cedar with sugar maple, eastern hemlock, green ash, and white ash Eastern white cedar stem count typically very high
									Dry to Fresh Red Cedar Fine Mineral Mixedwood Treed	TRT-MNd22			TRT-MNd22 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On fine loamy, silty and clayey sites Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Red cedar lead in canopy with red maple, sugar maple and/or eastern hop-hornbeam
									Dry to Fresh Aspen +/- White Birch Fine Mineral Mixedwood Treed	TRT-MNd16			TRT-MNd16 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, or 2) Substrate type widely variable but typically on fine loamy substrates May suggests recent disturbance or management on the site Assess cultural legacy to determine if this ecosite should be in the "naturalized" section of the Treed key 	<ul style="list-style-type: none"> White birch (paper birch), trembling aspen and/or large-toothed aspen leads in canopy Associates include eastern white cedar, balsam fir, white spruce, red maple, sugar maple, and eastern white pine Shrub layer tends to be sparser
									Dry to Fresh Maple Fine Mineral Mixedwood Treed	TRT-MNd17			TRT-MNd17 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) though more likely to be found on fresh sites On fine loamy, silty and clayey substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Maple lead in canopy (likely red maple) with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, and eastern white cedar
									Dry to Fresh Sugar Maple Fine Mineral Mixedwood Treed	TRT-MNd18			TRT-MNd18 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On fine loamy, silty and clayey substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Sugar maple with associated eastern white pine, eastern hemlock, American beech, red maple, American basswood, eastern hop-hornbeam, and white ash
									Dry to Fresh Oak + Pine Fine Mineral Mixedwood Treed	TRT-MNd19			TRT-MNd19 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On loamy or silty substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Oak and pine leads in the canopy may include northern red oak, white oak, and/or chinquapin oak, and pines may include eastern white pine, red pine or pitch pine Canopy is typically open
									Dry to Fresh Oak + Pine + Maple Fine Mineral Mixedwood Treed	TRT-MNd20			TRT-MNd20 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1 or 2) On loamy or silty substrates Upper to middle slope (1, 2, 3) and tableland (7) topographic positions 	<ul style="list-style-type: none"> Mix of oak, pine and maple leads in canopy, often including eastern white pine with sugar maple, northern red oak and, to a lesser extent, white oak Red maple, American basswood, white ash and eastern hop-hornbeam associates
					Fresh	Clayey			Fresh, Clayey: Red Pine - White Pine Mixedwood	B087, G087	B087	G087		<ul style="list-style-type: none"> Fresh soil moisture (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Hardwood canopy with ≥ 20% absolute cover by eastern white and/or red pine May contain white birch, trembling aspen, large-tooth aspen, white spruce, and red maple Shrub and herb moderately rich to rich
									Fresh, Clayey: Mixedwood	B092, G092	B092	G092		<ul style="list-style-type: none"> Fresh soil moisture (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Highly variable hardwood canopy with maple, basswood, ash, ironwood, aspen, and birch with associates including white spruce, black spruce, jack pine, balsam fir, and eastern white cedar Shrub and herb moderately rich. Ground surface mostly broadleaf litter
					Fresh	Silty to Fine Loamy			Fresh, Silty to Fine Loamy: Red Pine - White Pine Mixedwood	B103, G103	B103	G103		<ul style="list-style-type: none"> Fresh soil moisture (MR ≤ 3) On silty to fine loamy substrates, moderately deep to deep mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Hardwood dominated canopy with ≥ 20% absolute cover of eastern white and/or red pine Associates including white birch, trembling aspen, large-tooth aspen, white spruce, and red maple Shrub and herb moderately rich
									Fresh, Silty to Fine Loamy: Mixedwood	B108, G108	B108	G108		<ul style="list-style-type: none"> Fresh soil moisture (MR ≤ 3) On silty to fine loamy substrates, moderately deep to deep mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Highly variable hardwood canopy consisting of a mixture of sugar maple, white birch, American beech, yellow birch, American basswood, red oak, and ironwood, aspen, with associates including white pine, white spruce, black spruce, balsam fir, and white cedar Shrub and herb moderately rich

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / r / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Moist Aspen +/- Birch Fine Mineral Mixedwood Treed	TRT-MNf11			TRT-MNf11 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) Substrate type widely variable but typically on sandy or loamy substrates, may occur on shallow soils (>15 cm coarse mineral over bedrock or rock) Lower slopes (4, 5), seepage areas and bottomland (6) topographic positions May suggests recent disturbance or management on the site; assess cultural legacy to determine if this ecosite should be in the "naturalized" section of the treed 	<ul style="list-style-type: none"> Paper birch, yellow birch, trembling aspen and/or large-toothed aspen leads in canopy Associates include eastern white cedar, balsam fir, eastern hemlock, white spruce, red maple, sugar maple, and eastern white pine Sites with a higher MR may also have black ash, and green ash Shrub layer tends to be sparser
										Moist Ash Fine Mineral Mixedwood Treed	TRT-MNf12			TRT-MNf12 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey sites Middle to lower slopes (3, 4, 5), seepage areas and bottomland (6) topographic positions 	<ul style="list-style-type: none"> Ash species are the lead with a variety of other mid-tolerant shade species such as yellow birch, red maple, balsam fir, eastern hemlock, or cedar Either on moist soils associated with and complexed with ash swamps, or where ash has inherited a recently disturbed or managed moist site
										Moist Maple Fine Mineral Mixedwood Treed	TRT-MNf13			TRT-MNf13 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty, and clayey substrates Lower slopes (4, 5), seepage areas and bottomland (6) topographic positions 	<ul style="list-style-type: none"> Maple lead in canopy (likely red maple) with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, eastern white cedar, black ash, paper birch, green ash and/or eastern white pine
										Moist Sugar Maple Fine Mineral Mixedwood Treed	TRT-MNf14			TRT-MNf14 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty, and clayey substrates Lower slopes (4, 5), seepage areas and bottomland (6) topographic positions 	<ul style="list-style-type: none"> Sugar maple with associated eastern white pine, eastern hemlock, American beech, red maple, American basswood, eastern hop-hornbeam, and white ash
				Hardwood	Dry	Sandy				Dry, Sandy: Aspen – Birch Hardwood	B040, G040	B040	G040		<ul style="list-style-type: none"> Dry soil moisture (MR = 0, 0 or 1) On sandy substrates Often on level, low, and middle slopes 	<ul style="list-style-type: none"> Aspen (i.e., trembling, large-tooth) and/or birch (i.e., white, yellow) leading in canopy Associates include sugar maple, balsam fir, and red maple, jack pine, black spruce, white birch, and white spruce Shrub and herb moderately rich
										Dry, Sandy: Oak Hardwood	B041, G041	B041	G041		<ul style="list-style-type: none"> Dry soil moisture (MR = 0, 0 or 1) On sandy substrates Often on level, low, and middle slopes 	<ul style="list-style-type: none"> Oak (typically red oak, also bur oak) with associates including sugar maple, white ash, American beech, ironwood, red maple, and trembling aspen Shrub poor, herb moderately poor
										Dry, Sandy: Maple Hardwood	B042, G042	B042	G042		<ul style="list-style-type: none"> Dry soil moisture (MR = 0, 0 or 1) On sandy substrates Often on level, low, and middle slopes 	<ul style="list-style-type: none"> Maple (sugar and red maple) with associates including yellow birch, red oak, ironwood, eastern hemlock, white birch, trembling aspen, white spruce, balsam fir, and eastern white cedar Understory tree species consisting of high levels of sugar maple, balsam fir, red maple and red oak Shrub poor, herb moderately poor
					Dry to Fresh	Coarse				Dry to Fresh, Coarse: Aspen - Birch Hardwood	B055, G055	B055	G055		<ul style="list-style-type: none"> Dry to fresh soil moisture (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates Often on upper, middle, or lower slopes positions 	<ul style="list-style-type: none"> Aspen (i.e., trembling, large tooth) and/or birch (white, yellow) leading in canopy May contain sugar maple, balsam fir, and red maple Understory tree species consisting of moderate to high levels of balsam fir, red maple, white birch, and trembling aspen Shrub and herb moderately rich
										Dry to Fresh, Coarse: Elm - Ash Hardwood	B056, G056	B056	G056		<ul style="list-style-type: none"> Dry to fresh soil moisture (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates Often on middle or lower slopes positions 	<ul style="list-style-type: none"> Elm and/or ash lead, black ash and white elm typically present in the main canopy, but may include white ash and green ash Associates including trembling aspen, sugar maple, red maple, basswood, balsam fir, and yellow birch Shrub and herb rich
										Dry to Fresh, Coarse: Oak Hardwood	B057, G057	B057	G057		<ul style="list-style-type: none"> Dry to fresh soil moisture (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates Often on upper, middle, or lower slopes positions 	<ul style="list-style-type: none"> Oak (red oak typically but may include bur oak), with associates including sugar maple, ironwood, red maple, white birch, balsam fir, trembling aspen, and American basswood Shrub poor, herb moderately poor
										Dry to Fresh, Coarse: Maple Hardwood	B058, G058	B058	G058		<ul style="list-style-type: none"> Dry to fresh soil moisture (MR = 2 or 3, if sandy; MR ≤ 3, if coarse loamy) On sandy to coarse loamy substrates Often on upper, middle, or lower slopes positions 	<ul style="list-style-type: none"> Maple (sugar maple and red maple), associates including eastern hemlock, yellow birch, American basswood, American beech, ironwood, eastern white pine, and white birch Shrub and herb moderately rich
										Dry to Fresh Coarse Mineral Hardwood Treed	TRT-HNd1			TRT-HNd1 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
										Dry to Fresh Red Maple Coarse Mineral Hardwood Treed	TRT-HNd2			TRT-HNd2 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Red maple lead with northern red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash
										Dry to Fresh Sugar Maple Coarse Mineral Hardwood Treed	TRT-HNd3			TRT-HNd3 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen
										Dry to Fresh Aspen +/- White Birch Coarse Mineral Hardwood Treed	TRT-HNd4			TRT-HNd4 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Dry to Fresh Cottonwood Coarse Mineral Hardwood Treed	TRT-HNd5			TRT-HNd5 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Eastern Cottonwood is lead species in canopy Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Dry to Fresh Oak Coarse Mineral Hardwood Treed	TRT-HNd6			TRT-HNd6 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Subject to droughty conditions Typically on upper to middle slope (1, 2, 3) or tableland (7) topographic positions Site subject to extremes in conditions or disturbance (e.g., fire, historical land use) 	<ul style="list-style-type: none"> Oak lead (other than red or white) with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Canopy cover variable
										Dry to Fresh Oak +/- Maple Coarse Mineral Hardwood Treed	TRT-HNd7			TRT-HNd7 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> Oak and/or maple leads in various mixtures with associated eastern white pine, eastern hop-hornbeam, large-toothed aspen, trembling aspen, white ash, paper birch, and black cherry Canopy cover variable but often relatively open

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Dry to Fresh Red Oak +/- White Oak Coarse Mineral Hardwood Treed	TRT-HNd20			TRT-HNd20 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry
										Dry to Fresh Ash Coarse Mineral Hardwood Treed	TRT-HNd32			TRT-HNd32 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Usually black but also green ash leads with associated maple, oak, birch, and less frequently white pine or eastern white cedar Canopy cover variable but tends to be variable
										Dry to Fresh Carolinian Coarse Mineral Hardwood Treed	TRT-HNd16			TRT-HNd16 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Must have >30% relative cover of Carolinian species This ecosite is reserved for sites that do not otherwise fit into the Carolinian oak, maple, or black walnut sites
										Dry to Fresh Carolinian Black Walnut Coarse Mineral Hardwood Treed	TRT-HNd17			TRT-HNd17 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Black walnut lead with American elm, bitternut hickory, black maple and green ash associates Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Red Maple Coarse Mineral Hardwood Treed	TRT-HNd18			TRT-HNd18 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Sugar Maple +/- Black Maple Coarse Mineral Hardwood Treed	TRT-HNd19			TRT-HNd19 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Sugar maple and/or black maple lead with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Oak Coarse Mineral Hardwood Treed	TRT-HNd21			TRT-HNd21 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates More likely to be found on calcareous substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Oak lead (other than red or white) with American basswood, red maple, eastern white pine, black cherry and/or northern red oak associates Must have >30% relative cover of Carolinian species (if the lead oak species is also a Carolinian species it can be included in the >30% threshold) May be associated with an intermediate successional stage on historical dunes
										Dry to Fresh Carolinian Red Oak +/- White Oak Coarse Mineral Hardwood Treed	TRT-HNd22			TRT-HNd22 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Oak +/- Maple Coarse Mineral Hardwood Treed	TRT-HNd23			TRT-HNd23 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On sandy and loamy substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Oak and/or maple leads in various mixtures with associated eastern white pine, eastern hop-hornbeam, large-toothed aspen, trembling aspen, white ash, paper birch, and black cherry Must have >30% relative cover of Carolinian species
				Dry to Fresh			Fine			Dry to Fresh Fine Mineral Hardwood Treed	TRT-HNd8			TRT-HNd8 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
										Dry to Fresh Red Maple Fine Mineral Hardwood Treed	TRT-HNd9			TRT-HNd9 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash
										Dry to Fresh Sugar Maple Fine Mineral Hardwood Treed	TRT-HNd10			TRT-HNd10 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen
										Dry to Fresh Aspen +/- White Birch Fine Mineral Hardwood Treed	TRT-HNd11			TRT-HNd11 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Dry to Fresh Cottonwood Fine Mineral Hardwood Treed	TRT-HNd12			TRT-HNd12 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Eastern Cottonwood is lead species in canopy Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Dry to Fresh Oak Fine Mineral Hardwood Treed	TRT-HNd13			TRT-HNd13 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Oak lead (other than red or white) with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry are common associates Canopy cover variable
										Dry to Fresh Hickory +/- Maple +/- Oak Fine Mineral Hardwood Treed	TRT-HNd14			TRT-HNd14 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam
										Dry to Fresh Red Oak +/- White Oak Fine Mineral Hardwood Treed	TRT-HNd28			TRT-HNd28 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry Canopy cover variable but tends to be open
										Dry to Fresh Ash Fine Mineral Hardwood Treed	TRT-HNd33			TRT-HNd33 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Usually black but also green ash leads with associated maple, oak, birch, and less frequently white pine or eastern white cedar Canopy cover variable but tends to be variable
										Dry to Fresh Carolinian Fine Mineral Hardwood Treed	TRT-HNd24			TRT-HNd24 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Must have >30% relative cover of Carolinian species This ecosite is reserved for sites that do not otherwise fit into the Carolinian oak, maple, or black walnut sites
										Dry to Fresh Carolinian Black Walnut Fine Mineral Hardwood Treed	TRT-HNd25			TRT-HNd25 (S)	<ul style="list-style-type: none"> Dry to fresh soil moisture regime (MR = 0, 1, 2) On fine loamy, silty or clayey substrates Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions	<ul style="list-style-type: none"> Black walnut lead with American elm, bitternut hickory, black maple and green ash associates Must have >30% relative cover of Carolinian species

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Dry to Fresh Carolinian Red Maple Fine Mineral Hardwood Treed	TRT-HNd26				<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, 2) • On fine loamy, silty or clayey substrates • Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates • On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash • Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Sugar Maple +/- Black Maple Fine Mineral Hardwood Treed	TRT-HNd27				<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, 2) • On fine loamy, silty or clayey substrates • Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Sugar maple and/or black maple lead with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen • Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Oak Fine Mineral Hardwood Treed	TRT-HNd29				<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, 2) • On fine loamy, silty or clayey substrates • More likely to be found on calcareous substrates • Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Oak lead (other than red or white) with American basswood, red maple, eastern white pine, black cherry and/or red oak associates • Must have >30% relative cover of Carolinian species (if the lead oak species is also a Carolinian species it can be included in the >30% threshold) • May be associated with an intermediate successional stage on historical dunes
										Dry to Fresh Carolinian Red Oak +/- White Oak Fine Mineral Hardwood Treed	TRT-HNd30				<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, 2) • On fine loamy, silty or clayey substrates • Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry • Must have >30% relative cover of Carolinian species
										Dry to Fresh Carolinian Hickory +/- Maple +/- Oak Fine Mineral Hardwood Treed	TRT-HNd31				<ul style="list-style-type: none"> • Dry to fresh soil moisture regime (MR = 0, 1, 2) • On fine loamy, silty or clayey substrates • Upper to middle slopes (2, 3, 4) or tableland (7) topographic positions 	<ul style="list-style-type: none"> • Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory • Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam • Must have >30% relative cover of Carolinian species
			Fresh	Silty to Fine Loamy						Fresh, Silty to Fine Loamy: Aspen - Birch Hardwood	B104, G104	B104	G104		<ul style="list-style-type: none"> • Fresh soil moisture regime (MR ≤ 3) • On silty to fine loamy substrates • mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> • Aspen (i.e., trembling, large-tooth) and/or birch (i.e., white, yellow) leading in the canopy • May contain balsam fir, white spruce, sugar maple, and red maple • Shrub and herb moderately rich
										Fresh, Silty to Fine Loamy: Elm - Ash Hardwood	B105, G105	B105	G105		<ul style="list-style-type: none"> • Fresh soil moisture regime (MR ≤ 3) • On silty to fine loamy substrates • mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> • Elm and/or ash lead, black ash and white elm typically present in the main canopy, but may include white ash and green ash • Associates include trembling aspen, sugar maple, red maple, yellow birch, balsam fir, and white spruce • Shrub and herb rich
										Fresh, Silty to Fine Loamy: Oak Hardwood	B106, G106	B106	G106		<ul style="list-style-type: none"> • Fresh soil moisture regime (MR ≤ 3) • On silty to fine loamy substrates • mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> • Red oak typically present in the main canopy, but may include components of bur oak and white oak; associates include sugar maple, eastern white pine, white ash, American beech, and eastern hemlock • Shrub and herb moderately rich
										Fresh, Silty to Fine Loamy: Maple Hardwood	B107, G107	B107	G107		<ul style="list-style-type: none"> • Fresh soil moisture regime (MR ≤ 3) • On silty to fine loamy substrates • mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> • Sugar maple and red maple likely in the main canopy, associates include yellow birch, American basswood, white birch, ironwood, white ash, and American beech • Shrub and herb moderately rich

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							Clayey			Fresh, Clayey: Aspen · Birch Hardwood	B088, G088	B088	G088		<ul style="list-style-type: none"> Fresh soil moisture regime (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Aspen and/or birch lead including white birch, trembling aspen, large-tooth aspen, and yellow birch Associates include white spruce, red maple, sugar maple, and balsam fir Shrub and herb rich
										Fresh, Clayey: Elm · Ash Hardwood	B089, G089	B089	G089		<ul style="list-style-type: none"> Fresh soil moisture regime (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Elm and/or ash lead, black ash and white elm typically present in the main canopy, but may include white ash and green ash Associates including trembling aspen, sugar maple, red maple, yellow birch, and white spruce Shrub and herb rich
										Fresh, Clayey: Oak Hardwood	B090, G090	B090	G090		<ul style="list-style-type: none"> Fresh soil moisture regime (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Red oak typically present in the main canopy, but may include bur oak and white oak Associates include sugar maple, eastern white pine, white ash, American beech, and eastern hemlock Shrub and herb moderately rich
										Fresh, Clayey: Maple Hardwood	B091, G091	B091	G091		<ul style="list-style-type: none"> Fresh soil moisture regime (MR ≤ 3) On clayey substrates mostly on level, lower, or toe slopes or in depressions 	<ul style="list-style-type: none"> Sugar maple and red maple likely in the main canopy, with associates including yellow birch, American basswood, white birch, ironwood, white ash, and American beech Understory tree species consisting of high levels of sugar maple, balsam fir, and ironwood Shrub and herb moderately rich
							Moist Coarse			Moist, Coarse: Aspen · Birch Hardwood	B070, G070	B070	G070		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> White birch, trembling aspen, large-tooth aspen, and yellow birch Associates include sugar maple, balsam fir, red maple, and white spruce Understory includes moderate to high levels of balsam fir, sugar maple, red maple, and trembling aspen Shrub and herb moderately rich
										Moist, Coarse: Elm · Ash Hardwood	B071, G071	B071	G071		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> Black ash and white elm typically present in the main canopy, but may include white ash and green ash Associates include balsam fir, red maple, yellow birch, and white spruce Understory includes moderate levels of black ash, balsam fir, sugar maple, and red maple Shrub and herb rich
										Moist, Coarse: Oak Hardwood	B072, G072	B072	G072		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> Red oak typically present in the main canopy, but may include bur oak Associates include sugar maple, red maple, white birch, yellow birch, and green ash Understory with high levels of sugar maple, red maple, red oak, and balsam fir Shrub poor, herb moderately poor
										Moist, Coarse: Sugar Maple Hardwood	B073, G073	B073	G073		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> Sugar maple lead, associates include yellow birch, red maple, eastern hemlock, balsam fir, American beech, and eastern white cedar Understory includes high levels of sugar maple, balsam fir, and yellow birch Shrub moderately poor, herb moderately rich
										Moist, Coarse: Red Maple Hardwood	B074, G074	B074	G074		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> Red maple lead, associates including trembling aspen, balsam fir, sugar maple, white spruce, white birch, and eastern white cedar Understory includes moderate levels of red maple, sugar maple, and balsam fir Shrub moderately poor, herb moderately rich
										Moist, Coarse: Maple Hardwood	B075, G075	B075	G075		<ul style="list-style-type: none"> Moist soil moisture regime (MR = 4 or 5) On sandy to coarse loamy substrates mostly on middle, lower, or level slope positions 	<ul style="list-style-type: none"> Maple lead, with sugar, red, and/or silver maple Associates include white birch, eastern white pine, trembling aspen, white spruce, balsam fir, and yellow birch Understory includes moderate levels of red maple, sugar maple, and balsam fir Shrub moderately poor, herb moderately rich
										Moist Coarse Mineral Hardwood Treed	TRT-HNf1			TRT-HNf1 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Found on a variety of topographic positions 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys Likely includes sites dominated by willow, Manitoba maple, green ash or black ash
										Moist Aspen +/- Birch Coarse Mineral Hardwood Treed	TRT-HNf5			TRT-HNf5 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Trembling aspen, large-toothed aspen and/or paper birch are lead species in canopy with red maple, northern red oak, sugar maple, white ash, green ash, eastern hop-hornbeam, American elm, balsam poplar, and/or black cherry associates Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cutting, clearing)
										Moist Cottonwood Coarse Mineral Hardwood Treed	TRT-HNf6			TRT-HNf6 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Eastern Cottonwood is lead species in canopy Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cutting, clearing)
										Moist Red Maple Coarse Mineral Hardwood Treed	TRT-HNf7			TRT-HNf7 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash
										Moist Sugar Maple Coarse Mineral Hardwood Treed	TRT-HNf8			TRT-HNf8 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Moist Hickory +/- Maple +/- Oak Coarse Mineral Hardwood Treed	TRT-HNf9			TRT-HNf9 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam Represents the forest-swamp (terrestrial-wetland) interface with a characteristic mixture of terrestrial and wetland species
										Moist Oak Coarse Mineral Hardwood Treed	TRT-HNf22			TRT-HNf22 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Oak lead (other than red or white) with associates of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, green ash, black ash, American elm, Freeman's maple, silver maple, yellow birch and black cherry are common associates Canopy cover variable
										Moist Red Oak +/- White Oak Coarse Mineral Hardwood Treed	TRT-HNf23			TRT-HNf23 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry Canopy cover variable but tends to be open
										Moist Ash Coarse Mineral Hardwood Treed	TRT-HNf39			TRT-HNf39 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Found on a variety of topographic positions 	<ul style="list-style-type: none"> Usually black but also green ash leads with associated maple, oak, birch, and less frequently white pine or eastern white cedar Canopy cover variable but tends to be variable
										Moist Carolinian Coarse Mineral Hardwood Treed	TRT-HNf2			TRT-HNf2 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Found on a variety of topographic positions 	<ul style="list-style-type: none"> Must have >30% relative cover of Carolinian species This ecosite is reserved for sites that do not otherwise fit into the Carolinian oak, maple, or black walnut sites
										Moist Carolinian Black Walnut Coarse Mineral Hardwood Treed	TRT-HNf27			TRT-HNf27 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Black walnut lead with American elm, bitternut hickory, black maple and green ash associates Must have >30% relative cover of Carolinian species
										Moist Carolinian Red Maple Coarse Mineral Hardwood Treed	TRT-HNf28			TRT-HNf28 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, white ash, black ash, green ash, balsam fir, and/or yellow birch associates Must have >30% relative cover of Carolinian species
										Moist Carolinian Sugar Maple +/- Black Maple Coarse Mineral Hardwood Treed	TRT-HNf29			TRT-HNf29 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Sugar maple and/or black maple lead with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Must have >30% relative cover of Carolinian species
										Moist Carolinian Oak Coarse Mineral Hardwood Treed	TRT-HNf30			TRT-HNf30 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Oak lead (other than red or white) with associates of red maple, American basswood, eastern white pine, sugar maple, eastern hop-hornbeam, green ash, black ash, American elm, Freeman's maple, silver maple, yellow birch and black cherry are common associates Must have >30% relative cover of Carolinian species (if the lead oak species is also a Carolinian species it can be included in the >30% threshold) May be associated with an intermediate successional stage on historical dunes
										Moist Carolinian Red Oak +/- White Oak Coarse Mineral Hardwood Treed	TRT-HNf31			TRT-HNf31 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry Must have >30% relative cover of Carolinian species
										Moist Carolinian Hickory +/- Maple +/- Oak Coarse Mineral Hardwood Treed	TRT-HNf32			TRT-HNf32 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On sandy and coarse loamy substrates Middle to lower slopes (3, 4, 5), bottomlands (5, 6) and poorly drained tablelands with complex microtopography (8) 	<ul style="list-style-type: none"> Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam Represents the forest-swamp (terrestrial-wetland) interface with a characteristic mixture of terrestrial and wetland species Must have >30% relative cover of Carolinian species

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
						Moist	Fine			Moist, Fine: Aspen · Birch Hardwood	B119, G119	B119	G119		<ul style="list-style-type: none"> · Moist soil moisture regime (MR = 4 or 5) · On silty to fine loamy substrates · mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> · Aspen and/or birch, white birch, trembling aspen, large-tooth aspen, and yellow birch · Associates include white spruce, balsam fir, and red maple, and eastern white cedar · Understory includes high levels of balsam fir, white spruce, red maple, and white birch · Shrub and herb moderately rich
										Moist, Fine: Elm · Ash Hardwood	B120, G120	B120	G120		<ul style="list-style-type: none"> · Moist soil moisture regime (MR = 4 or 5) · On silty to fine loamy substrates · mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> · Black ash and white elm typically present in the main canopy, but may contain white ash and green ash · Associates include white spruce, trembling aspen, sugar maple, and red maple, yellow birch · Understory with moderate levels of black ash, balsam fir, sugar maple, and red maple · Shrub and herb rich
										Moist, Fine: Oak Hardwood	B121, G121	B121	G121		<ul style="list-style-type: none"> · Moist soil moisture regime (MR = 4 or 5) · On silty to fine loamy substrates · mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> · Red oak typically present in the main canopy, but may include bur oak and white oak · Associates include sugar maple, eastern white pine, white ash, American beech, and eastern hemlock · Understory consisting of high levels of sugar maple, ironwood, red maple, and red oak · Shrub and herb moderately rich
										Moist, Fine: Sugar Maple Hardwood	B122, G122	B122	G122		<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Sugar maple lead with red oak, white oak, black oak, red maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, white ash, black ash, green ash, balsam fir, and/or yellow birch associates
										Moist, Fine: Red Maple Hardwood	B123, G123	B123	G123		<ul style="list-style-type: none"> · Moist soil moisture regime (MR = 4 or 5) · On silty to fine loamy substrates · mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> · Red maple lead in canopy, associates include yellow birch, balsam fir, sugar maple, black cherry, and white spruce · Understory consisting of moderate levels of red maple, sugar maple, and balsam fir · Shrub and herb moderately rich
										Moist, Fine: Maple Hardwood	B124, G124	B124	G124		<ul style="list-style-type: none"> · Moist soil moisture regime (MR = 4 or 5) · On silty to fine loamy substrates · mostly on middle or lower slopes or in depressions 	<ul style="list-style-type: none"> · Sugar maple, red maple, and silver maple likely in the main canopy, associates include white birch, eastern white pine, trembling aspen, white spruce, balsam fir, and yellow birch · Understory tree species consisting of moderate levels of red maple, sugar maple, and balsam fir · Shrub and herb moderately rich
										Moist Fine Mineral Hardwood Treed	TRT-HNf11			TRT-HNf11 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Found on a variety of topography positions 	<ul style="list-style-type: none"> · This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys · Likely includes sites dominated by willow, Manitoba maple, green ash or black ash
										Moist Aspen +/- Birch Fine Mineral Hardwood Treed	TRT-HNf15			TRT-HNf15 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Trembling aspen, large-toothed aspen and/or paper birch are lead species in canopy with red maple, northern red oak, sugar maple, white ash, green ash, eastern hop-hornbeam, American elm, balsam poplar, and/or black cherry associates · Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Moist Cottonwood Fine Mineral Hardwood Treed	TRT-HNf16			TRT-HNf16 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Eastern Cottonwood is lead species in canopy · Often represents second growth arising on heavily managed, grazed or disturbed sites (e.g., cu ing, clearing)
										Moist Red Maple Fine Mineral Hardwood Treed	TRT-HNf17			TRT-HNf17 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, and white ash associates · On fresher sites associates may include balsam fir, yellow birch, black ash and/or green ash
										Moist Sugar Maple Fine Mineral Hardwood Treed	TRT-HNf18			TRT-HNf18 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Sugar maple with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen
										Moist Hickory +/- Maple +/- Oak Fine Mineral Hardwood Treed	TRT-HNf19			TRT-HNf19 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory · Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam · Represents the forest-swamp (terrestrial-wetland) interface with a characteristic mixture of terrestrial and wetland species
										Moist Oak Fine Mineral Hardwood Treed	TRT-HNf25			TRT-HNf25 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Oak lead (other than red or white) with associates, of red maple, eastern white pine, sugar maple, eastern hop-hornbeam, green ash, black ash, American elm, Freeman's maple, silver maple, yellow birch and black cherry are common associates · Canopy cover variable
										Moist Red Oak +/- White Oak Fine Mineral Hardwood Treed	TRT-HNf26			TRT-HNf26 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry · Canopy cover variable but tends to be open
										Moist Ash Fine Mineral Hardwood Treed	TRT-HNf40			TRT-HNf40 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Usually black but also green ash leads with associated maple, oak, birch, and less frequently white pine or eastern white cedar · Canopy cover variable but tends to be variable
										Moist Carolinian Fine Mineral Hardwood Treed	TRT-HNf12			TRT-HNf12 (S)	<ul style="list-style-type: none"> · Fresh to moist soil moisture regime (MR = 3, 4, or 5) · On fine loamy, silty and clayey substrates · Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> · Must have >30% relative cover of Carolinian species · This ecosite is reserved for sites that do not otherwise fit into the Carolinian oak, maple, or black walnut sites

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Moist Carolinian Black Walnut Fine Mineral Hardwood Treed	TRT-HNf33			TRT-HNf33 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Black walnut lead with American elm, bitternut hickory, black maple and green ash associates Must have >30% relative cover of Carolinian species
										Moist Carolinian Red Maple Fine Mineral Hardwood Treed	TRT-HNf34			TRT-HNf34 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Red maple lead with red oak, white oak, black oak, sugar maple, eastern white pine, black cherry, eastern hop-hornbeam, large-toothed aspen, paper birch, white ash, black ash, green ash, balsam fir, and/or yellow birch associates Must have >30% relative cover of Carolinian species
										Moist Carolinian Sugar Maple +/- Black Maple Fine Mineral Hardwood Treed	TRT-HNf35			TRT-HNf35 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Sugar maple and/or black maple lead with American beech, northern red oak, eastern hop-hornbeam, American basswood, black cherry, bitternut hickory, white ash, paper birch, trembling aspen, and large-toothed aspen Must have >30% relative cover of Carolinian species
										Moist Carolinian Oak Fine Mineral Hardwood Treed	TRT-HNf36			TRT-HNf36 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Oak lead (other than red or white) with associates of red maple, American basswood, eastern white pine, sugar maple, eastern hop-hornbeam, green ash, black ash, American elm, Freeman's maple, silver maple, yellow birch and black cherry are common associates Must have >30% relative cover of Carolinian species (if the lead oak species is also a Carolinian species it can be included in the >30% threshold) May be associated with an intermediate successional stage on historical dunes
										Moist Carolinian Red Oak +/- White Oak Fine Mineral Hardwood Treed	TRT-HNf37			TRT-HNf37 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Northern red oak, and white oak leads with associated red maple, eastern white pine, sugar maple, eastern hop-hornbeam, and black cherry Must have >30% relative cover of Carolinian species
										Moist Carolinian Hickory +/- Maple +/- Oak Fine Mineral Hardwood Treed	TRT-HNf38			TRT-HNf38 (S)	<ul style="list-style-type: none"> Fresh to moist soil moisture regime (MR = 3, 4, or 5) On fine loamy, silty and clayey substrates Lower slopes (4, 5), seepage areas, bottomlands (5, 6) and tablelands with poor drainage and complex microtopography (8) 	<ul style="list-style-type: none"> Two or three of oak, maple, and/or hickory species share lead; commonly includes some combination of northern red oak, white oak, bur oak, red maple, sugar maple, black maple, shagbark hickory, and bitternut hickory Associates include green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam Represents the forest-swamp (terrestrial-wetland) interface with a characteristic mixture of terrestrial and wetland species Must have >30% relative cover of Carolinian species
			Naturalized		Conifer					Naturalized Pine Conifer Treed Plantation	TRT-CZ1			TRT-CZ1 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Pine planted in visible rows with >30% ingress and no clear evidence that the site is still being maintained
										Naturalized Larch Conifer Treed Plantation	TRT-CZ7			TRT-CZ7 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Tamarack planted in visible rows with >30% ingress and no clear evidence that the site is still being maintained
										Naturalized Spruce Conifer Treed Plantation	TRT-CZ2			TRT-CZ2 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Spruce planted in visible rows with >30% ingress and no clear evidence that the site is still being maintained
										Naturalized Conifer Treed Plantation	TRT-CZ3			TRT-CZ3 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Conifer species in visible rows with >30% ingress and no clear evidence that the site is still being maintained
										Naturalized Conifer Treed Regeneration	TRT-CZ4			TRT-CZ4 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Evidence of previous disturbance with site succeeding into other conifers
										Naturalized Spruce Conifer Treed Regeneration	TRT-CZ11			TRT-CZ11 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Evidence of previous disturbance with site succeeding into spruce
										Naturalized Pine Conifer Treed Regeneration	TRT-CZ12			TRT-CZ12 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Evidence of previous disturbance with site succeeding into pine
										Naturalized Red Cedar Conifer Treed Regeneration	TRT-CZ13			TRT-CZ13 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Evidence of previous disturbance with site succeeding into red cedar
										Naturalized White Cedar Conifer Treed Regeneration	TRT-CZ14			TRT-CZ14 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Evidence of previous disturbance with site succeeding into eastern white cedar
										Naturalized Conifer Treed Restoration	TRT-CZ5			TRT-CZ5 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Field data to support recent restoration initiative where conifers were the planted species
										Naturalized Cedar Conifer Treed Restoration	TRT-CZ8			TRT-CZ8 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Field data to support recent restoration initiative where primarily cedars were the planted species
										Naturalized Spruce Conifer Treed Restoration	TRT-CZ9			TRT-CZ9 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Field data to support recent restoration initiative where primarily spruce were the planted species
										Naturalized Pine Conifer Treed Restoration	TRT-CZ10			TRT-CZ10 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Field data to support recent restoration initiative where primarily pine were the planted species
										Naturalized Conifer Treed Hedgerow	TRT-CZ6			TRT-CZ6 (S)	<ul style="list-style-type: none"> Single or double row of trees <20 m wide Primarily conifer species 	
										Naturalized Red Cedar Conifer Treed Hedgerow	TRT-CZ15			TRT-CZ15 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Single or double row of trees <20 m wide Primarily red cedar
										Naturalized White Cedar Conifer Treed Hedgerow	TRT-CZ16			TRT-CZ16 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Single or double row of trees <20 m wide Primarily eastern white cedar
										Naturalized Spruce Conifer Treed Hedgerow	TRT-CZ17			TRT-CZ17 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Single or double row of trees <20 m wide Primarily spruce species
										Naturalized Pine Conifer Treed Hedgerow	TRT-CZ18			TRT-CZ18 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Single or double row of trees <20 m wide Primarily pine species
			Naturalized		Mixedwood					Naturalized Mixedwood Treed Plantation	TRT-MZ2			TRT-MZ2 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained Includes sites that were clearly once a conifer plantation (i.e., only the conifers are in rows), but canopy cover is now <75% conifer due to succession of hardwood species
										Naturalized Spruce Mixedwood Treed Plantation	TRT-MZ6			TRT-MZ6 (S)	<ul style="list-style-type: none"> Due to cultural legacy or past disturbance environmental conditions vary widely 	<ul style="list-style-type: none"> Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained Spruce are the lead species but may have a variety of associates depending on site conditions

History	System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
												Naturalized Pine Mixedwood Treed Plantation	TRT-MZ7			TRT-MZ7 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained · Pine are the lead species but may have a variety of associates depending on site conditions
												Naturalized Mixedwood Treed Regeneration	TRT-MZ3			TRT-MZ3 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Evidence of previous disturbance with site succeeding into a mixedwood community
												Naturalized Aspen +/- White Birch Mixedwood Treed Regeneration	TRT-MZ8			TRT-MZ8 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Common early successional forest following a significant disturbance
												Naturalized Maple Mixedwood Treed Regeneration	TRT-MZ9			TRT-MZ9 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Evidence of previous disturbance with site succeeding into a mixedwood community with a maple lead
												Naturalized Spruce +/- Balsam Fir Mixedwood Treed Regeneration	TRT-MZ10			TRT-MZ10 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Evidence of previous disturbance with site succeeding into a mixedwood community with a spruce and/or balsam fir lead
												Naturalized Red Cedar Mixedwood Treed Regeneration	TRT-MZ11			TRT-MZ11 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Evidence of previous disturbance with site succeeding into a mixedwood community with a maple lead
												Naturalized White Cedar Mixedwood Treed Regeneration	TRT-MZ12			TRT-MZ12 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Common early successional stage following intense management, grazing or other disturbances
												Naturalized Pine Mixedwood Treed Regeneration	TRT-MZ13			TRT-MZ13 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Evidence of previous disturbance with site succeeding into a mixedwood community with a pine lead
												Naturalized Mixedwood Treed Restoration	TRT-MZ4			TRT-MZ4 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted
												Naturalized Aspen +/- White Birch Mixedwood Treed Restoration	TRT-MZ14			TRT-MZ14 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted, and aspen and/or birch species are now the leads
												Naturalized Maple Mixedwood Treed Restoration	TRT-MZ15			TRT-MZ15 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted, and maple species are now the leads
												Naturalized Cedar Mixedwood Treed Restoration	TRT-MZ16			TRT-MZ16 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted, and cedar species are now the leads
												Naturalized Spruce Mixedwood Treed Restoration	TRT-MZ17			TRT-MZ17 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted, and spruce species are now the leads
												Naturalized Pine Mixedwood Treed Restoration	TRT-MZ18			TRT-MZ18 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Field data to support recent restoration initiative where conifers and hardwoods were planted, and pine species are now the leads
												Naturalized Mixedwood Treed Hedgerow	TRT-MZ5			TRT-MZ5 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Single or double row of trees <20 m wide
												Naturalized Maple Mixedwood Treed Hedgerow	TRT-MZ19			TRT-MZ19 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Single or double row of trees <20 m wide with a maple lead
												Naturalized Cedar Mixedwood Treed Hedgerow	TRT-MZ20			TRT-MZ20 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Single or double row of trees <20 m wide with a cedar lead
												Naturalized Spruce Mixedwood Treed Hedgerow	TRT-MZ21			TRT-MZ21 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Single or double row of trees <20 m wide with a spruce lead
												Naturalized Pine Mixedwood Treed Hedgerow	TRT-MZ22			TRT-MZ22 (S)	· Due to cultural legacy or past disturbance environmental conditions vary widely	· Single or double row of trees <20 m wide with a pine lead

History System	Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
		Naturalized		Hardwood											
									Naturalized Hardwood Treed Plantation	TRT-HZ1			TRT-HZ1 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained
									Naturalized Carolinian Hardwood Treed Plantation	TRT-HZ5			TRT-HZ5 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained • Carolinian tree species make up >30% of relative canopy cover
									Naturalized Black Walnut Hardwood Treed Plantation	TRT-HZ6			TRT-HZ6 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained • Black walnut is the lead species but may have a variety of associates depending on site conditions
									Naturalized Aspen Hardwood Treed Plantation	TRT-HZ7			TRT-HZ7 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained • Aspen is the lead species but may have a variety of associates depending on site conditions
									Naturalized Maple Hardwood Treed Plantation	TRT-HZ8			TRT-HZ8 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Treed species in visible rows with >30% ingress and no clear evidence that the site is still being maintained • Maple species are the lead species but may have a variety of associates depending on site conditions
									Naturalized Hardwood Treed Restoration	TRT-HZ2			TRT-HZ2 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative
									Naturalized Carolinian Hardwood Treed Restoration	TRT-HZ9			TRT-HZ9 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative • Carolinian tree species make up >30% of relative canopy cover
									Naturalized Aspen Hardwood Treed Restoration	TRT-HZ10			TRT-HZ10 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative • Aspen is the lead species but may have a variety of associates depending on site conditions
									Naturalized Oak Hardwood Treed Restoration	TRT-HZ11			TRT-HZ11 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative • Oak species are the lead species but may have a variety of associates depending on site conditions
									Naturalized Maple Hardwood Treed Restoration	TRT-HZ12			TRT-HZ12 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Field data to support recent restoration initiative • Maple species are the lead species but may have a variety of associates depending on site conditions
									Naturalized Hardwood Treed Regeneration	TRT-HZ3			TRT-HZ3 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a hardwood community
									Naturalized Ash +/- White Elm Hardwood Treed Regeneration	TRT-HZ13			TRT-HZ13 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a hardwood community dominated by ash and/or American elm (white elm)
									Naturalized Aspen +/- White Birch Hardwood Treed Regeneration	TRT-HZ14			TRT-HZ14 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a hardwood community dominated by ash and/or white birch (paper birch)
									Naturalized Maple Hardwood Treed Regeneration	TRT-HZ15			TRT-HZ15 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Evidence of previous disturbance with site succeeding into a hardwood community dominated by maple species
									Naturalized Hardwood Treed Hedgerow	TRT-HZ4			TRT-HZ4 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide
									Naturalized Ash Hardwood Treed Hedgerow	TRT-HZ16			TRT-HZ16 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide with an ash lead
									Naturalized Aspen Hardwood Treed Hedgerow	TRT-HZ17			TRT-HZ17 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide with an aspen lead
									Naturalized Oak Hardwood Treed Hedgerow	TRT-HZ18			TRT-HZ18 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide with an oak lead
									Naturalized Maple Hardwood Treed Hedgerow	TRT-HZ19			TRT-HZ19 (S)	• Due to cultural legacy or past disturbance environmental conditions vary widely	• Single or double row of trees <20 m wide with a maple lead

History System	Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Wetland														Wetland, or lowland, sites occur where the water table is above the substrate surface or where surface materials are saturated, for long periods. Such sites occur on very moist to wet hydric sites, with moisture regimes ≥6. Typically water accumulating topographic positions, where vernal pooling often makes up >20% of the surface and the substrates may consist of hydric parent material, mineral soil, rock and bedrock, or peat organic materials.	Differences in flooding cycles and periods of saturation are reflected by the wetland vegetation changes along those moisture gradients. wetland sites have a vegetation composition made up of mostly facultative, facultative wetland and obligate wetland plant species. Community assembly and vegetation composition reflect the hierarchy of ecological influence and include high energy dynamic sites along with more sheltered mineral, rock or pea and sites.
Swamp														Swamps occur only on sheltered sites, or away from dynamic zones, and lowlands where flooding is rare or seasonal, and saturation rarely exceeds 10 months a year. Only in such moderating yet saturated environments will tree growth be established and exceed 25% cover. Excess moisture selects for tree and other species adapted to such high moisture conditions, and develop recurring wetland species associations along the moisture, texture, material type gradients on rock, mineral, peat or muck sites.	Further separation of swamps by physiognomic characters (hardwood, conifer, mixedwood) also reflects the distribution along gradients; where high conifer cover is found in cooler, wetter and often peat and conditions, and hardwood cover on the other hand increases where sites are warmer, and less wet, and less on sphagnum peats but on mucky materials.
Low Treed														Low treed swamps (<10 m) reflect one of two legacies, either intermediate in environmental severity leading to stunted growth in the trees, or where there is secondary woody succession after a disturbance that have novel or unique wetland tree species compositions.	Low treed swamps here have a restricted definition to those low treed wetland communities that exceed 25% tree cover and maintained naturally by limitations usually giving rise to a unique flora. Furthermore, low treed swamps are only applied to unique and often weedy associations that arise from anthropogenic disturbance and are naturalized in origin.
Treed														Treed swamps occur where wetland ecological gradients are least severe and can support larger and taller treed species assemblages that exceed 25% cover. Natural open to closed treed swamps sort out along local climate, soil depth, texture, moisture, and fertility gradients, which select for certain species associations.	Recurring wetland species associations along such gradients represent natural treed swamp vegetation types.

Ecoregion 5E and northward

Conifer	Organic	Organic Poor Conifer Swamp	B127, G127	B127	G127	<ul style="list-style-type: none">- Substrate organic, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s)- Limitations to plant growth result of excess moisture and lack of nutrient availability	<ul style="list-style-type: none">- Conifer canopy consisting of black spruce with small amounts (< 10%) of other species including balsam fir or white birch, often pure conifer.- Abundant ericaceous shrubs, herb poor, ground surface mostly moss
		Organic Intermediate Conifer Swamp	B128, G128	B128	G128	<ul style="list-style-type: none">- Substrate organic, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s)- Limitations to plant growth result of excess moisture and moderate nutrient availability and moderate nutrient availability	<ul style="list-style-type: none">- Conifer canopy consisting of black spruce and presence of tamarack, speckled alder, sometimes with balsam fir- Shrub, herb, and moss moderately rich, abundant alder, ground surface mostly moss with woody debris and conifer litter
		Organic Rich Conifer Swamp	B129, G129	B129	G129	<ul style="list-style-type: none">- Substrate organic, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s)- Limitations to plant growth result of excess moisture and moderate nutrient availability- Rooting zone in contact with minerotrophic groundwater	<ul style="list-style-type: none">- Conifer canopy consisting of eastern white cedar and/or presence of rich swamp indicators, often mixed with black spruce, tamarack, and balsam fir- Sparse shrubs, herb and moss moderately rich, ground surface mostly moss with conifer/broadleaf litter, woody debris, and standing water
Hardwood	Mineral	Intolerant Hardwood Swamp	B130, G130	B130	G130	<ul style="list-style-type: none">- Substrate mineral or peaty phase, mostly moderately deep to deep, if mineral; rarely > 40 cm, if peaty phase- Hydric (MR = 6, 7, 8, 9 or s), subjected to flooding, such as spring run-off or heavy rainfall, evidence of vernal pools and/or standing water common	<ul style="list-style-type: none">- Hardwood canopy consisting of poplar +/- ash (> 50% cover of the hardwood species), such as trembling aspen, balsam poplar, and black ash, often mixed with balsam fir, white birch, black spruce, and white spruce- Shrub, herb, and graminoid rich, ground surface mostly broadleaf/conifer litter with moss, woody debris, and humus
		Maple Hardwood Swamp	B131, G131	B131	G131	<ul style="list-style-type: none">- Substrate mineral or peaty phase, mostly moderately deep to deep, if mineral; rarely > 40 cm, if peaty phase- Hydric (MR = 6, 7, 8, 9 or s), subjected to flooding, such as spring run-off or heavy rainfall	<ul style="list-style-type: none">- Hardwood canopy consisting of maple (> 50% cover of the hardwood species), such as red maple, may be mixed with black ash, red ash, and white spruce- Shrub, herb, and graminoid rich, ground surface mostly broadleaf litter with woody debris
		Oak Hardwood Swamp	B132, G132	B132	G132	<ul style="list-style-type: none">- Substrate mineral or peaty phase, mostly moderately deep to deep, if mineral; rarely > 40 cm, if peaty phase- Hydric (MR = 6, 7, 8, 9 or s), subjected to flooding, such as spring run-off or heavy rainfall	<ul style="list-style-type: none">- Hardwood canopy consisting of oak (> 50% cover of hardwood species), such as bur oak, may be mixed with red ash, black ash, American basswood, trembling aspen, white elm, yellow birch, and balsam poplar- Shrub, herb, and graminoid rich, ground surface mostly broadleaf litter with woody debris
		Hardwood Swamp	B133, G133	B133	G133	<ul style="list-style-type: none">- Substrate mineral or peaty phase, mostly moderately deep to deep, if mineral; rarely > 40 cm, if peaty phase- Hydric (MR = 6, 7, 8, 9 or s)	<ul style="list-style-type: none">- Hardwood canopy consisting of white birch and/or a mixture of other hardwood species- Shrub, herb, and graminoid rich, ground surface mostly broadleaf litter with woody debris

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
					Conifer			Mineral		Mineral Poor Conifer Swamp	B222, G222	B222	G222		<ul style="list-style-type: none"> Substrate mineral or peaty phase, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s) Limitations to plant growth result of excess moisture and lack of nutrient availability 	<ul style="list-style-type: none"> Conifer canopy consisting of black spruce with small amounts (< 10%) of other species, often pure conifer Abundant ericaceous shrubs, herb poor, ground surface mostly moss with woody debris, and conifer/broadleaf litter
										Mineral Intermediate Conifer Swamp	B223, G223	B223	G223		<ul style="list-style-type: none"> Substrate mineral or peaty phase, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s) Limitations to plant growth result of excess moisture and moderate nutrient availability Rooting zone in contact with minerotrophic groundwater 	<ul style="list-style-type: none"> Conifer canopy consisting of black spruce and presence of tamarack and speckled alder Shrub, herb, and moss moderately rich, abundant alder, ground surface mostly moss with woody debris, and conifer/broadleaf litter
										Mineral Rich Conifer Swamp	B224, G224	B224	G224		<ul style="list-style-type: none"> Substrate mineral or peaty phase, mostly moderately deep to deep and hydric (MR = 6, 7, 8, 9 or s) Limitations to plant growth result of excess moisture Rooting zone in contact with minerotrophic groundwater 	<ul style="list-style-type: none"> Conifer canopy consisting of eastern white cedar often mixed with black spruce, balsam fir, white spruce, white birch, and trembling aspen Sparse shrubs, herb and moss moderately rich, ground surface mostly moss with woody debris, conifer/broadleaf litter

Ecoregions 6E and 7E

Conifer	Rock	k	White Cedar Rock Calcareous Conifer Swamp	SWT-Crk1				SWT-Crk1 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)	<ul style="list-style-type: none">Eastern white cedar lead species in canopy, typically very dense and providing shadeAssociates may include red maple, American elm, eastern hemlock, balsam fir, black ash, white birch (paper birch), yellow birch and/or white spruceShrub and herb cover is very limited
			Rock Calcareous Conifer Swamp	SWT-Crk2				SWT-Crk2 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5)	<ul style="list-style-type: none">This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
			Rock Non-Calcareous Conifer Swamp	SWT-Crn1				SWT-Crn1 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)	<ul style="list-style-type: none">This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
		White Cedar Rock Non-Calcareous Conifer Swamp	SWT-Crn2				SWT-Crn2 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)	<ul style="list-style-type: none">Eastern white cedar lead species in canopy, typically very dense and providing shadeAssociates may include red maple, American elm, eastern hemlock, balsam fir, black ash, white birch (paper birch), yellow birch and/or white spruceShrub and herb cover is very limited	
		White Spruce Rock Non-Calcareous Conifer Swamp	SWT-Crn3				SWT-Crn3 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)	<ul style="list-style-type: none">White spruce lead with white cedar, balsam fir and/or white birch (paper birch)	
		White Spruce + White Cedar Rock Non-Calcareous Conifer Swamp	SWT-Crn4				SWT-Crn4 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationThin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5)	<ul style="list-style-type: none">Eastern white cedar and/or white spruce lead species in canopyAssociates may include red maple, American elm, balsam fir, black ash, white birch (paper birch), and/or yellow birchShrub and herb cover is very limited	
	Mineral	White Cedar Mineral Conifer Swamp	SWT-Cm1	SWT-Cm1 (B)	SWT-Cm1 (G)	SWT-Cm1 (S)	<ul style="list-style-type: none">Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral)Hydric site that is very moist to wet and has periods of seasonal inundationFlooding duration is typically short – substrate aerated by early to mid-summer	<ul style="list-style-type: none">Eastern white cedar with balsam fir, eastern hemlock, white spruce and, to a lesser extent, white birch (paper birch), yellow birch, eastern white pine, black ash and red mapleDominant species may vary		
		White Cedar + White Spruce Mineral Conifer Swamp	SWT-Cm2	SWT-Cm2 (B)	SWT-Cm2 (G)	SWT-Cm2 (S)	<ul style="list-style-type: none">Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral)Hydric site that is very moist to wet and has periods of seasonal inundationFlooding duration is typically short – substrate aerated by early to mid-summer	<ul style="list-style-type: none">Eastern white cedar and/or white spruce lead species in canopyAssociates may include red maple, American elm, balsam fir, black ash, white birch (paper birch), and/or yellow birchShrub and herb cover is very limited		
		Mineral Conifer Swamp	SWT-Cm3	SWT-Cm3 (B)	SWT-Cm3 (G)	SWT-Cm3 (S)	<ul style="list-style-type: none">Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral)Hydric site that is very moist to wet and has periods of seasonal inundationFlooding duration is typically short – substrate aerated by early to mid-summer	<ul style="list-style-type: none">This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys		
		White Cedar Organic Conifer Swamp	SWT-Co1	SWT-Co1 (B)	SWT-Co1 (G)	SWT-Co1 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">Rich swamp conditionsEastern white cedar with tamarack, balsam fir, black spruce, eastern hemlock, white spruce and, to a lesser extent, eastern white pine, yellow birch and/or white birch (paper birch)Understorey typically very shaded, having few species and little cover		
	Organic	White Spruce Organic Conifer Swamp	SWT-Co2	SWT-Co2 (B)	SWT-Co2 (G)	SWT-Co2 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">White spruce lead with eastern white cedar, balsam fir and/or white birch (paper birch)		
		Larch Organic Conifer Swamp	SWT-Co4	SWT-Co4 (B)	SWT-Co4 (G)	SWT-Co4 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">Tamarack lead with eastern white cedar, green ash, red maple, yellow birch, white pine, American elm, and/or green ash		
		White Cedar + Larch Organic Conifer Swamp	SWT-Co5	SWT-Co5 (B)	SWT-Co5 (G)	SWT-Co5 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">Eastern white cedar with tamarack, balsam fir, black spruce, eastern hemlock, white spruce and, to a lesser extent, eastern white pine, yellow birch and/or white birch (paper birch)Understorey typically very shaded, having few species and little cover		
		Larch + Spruce Organic Conifer Swamp	SWT-Co6	SWT-Co6 (B)	SWT-Co6 (G)	SWT-Co6 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">Intermediate swamp conditions - tamarack and black spruce dominant or in variable mixturesTypically found associated with or ringing bogs and fens		
		Black Spruce Organic Conifer Swamp	SWT-Co7	SWT-Co7 (B)	SWT-Co7 (G)	SWT-Co7 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">Poor swamp conditions - black spruce dominant with tamarack as an associateTypically found associated with or ringing bogs and fens		
		Organic Conifer Swamp	SWT-Co8	SWT-Co8 (B)	SWT-Co8 (G)	SWT-Co8 (S)	<ul style="list-style-type: none">Hydric site that is very moist to wet and has periods of seasonal inundationOrganic substrates >40 cm	<ul style="list-style-type: none">This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys		

History System Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / r / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
			Mixedwood				Rock	White Cedar Rock Calcareous Mixedwood Swamp	SWT-Mrk1			SWT-Mrk1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Eastern white cedar lead species in canopy, typically very dense and providing shade Associates may include red maple, American elm, eastern hemlock, balsam fir, black ash, white birch (paper birch), yellow birch and/or white spruce Shrub and herb cover is very limited
								Rock Calcareous Mixedwood Swamp	SWT-Mrk2			SWT-Mrk2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
								Maple Rock Calcareous Mixedwood Swamp	SWT-Mrk3			SWT-Mrk3 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Maple lead in canopy with associated eastern hemlock, yellow birch, white ash, northern red oak, balsam fir, sugar maple, eastern white cedar, black ash, paper birch, green ash and/or eastern white pine
								Hemlock +/- Yellow Birch +/- Maple Rock Calcareous Mixedwood Swamp	SWT-Mrk4			SWT-Mrk4 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Two or three of eastern hemlock, red maple and/or yellow birch are dominant in the canopy Associates include black ash and green ash Dominant species may vary
								White Spruce Rock Calcareous Mixedwood Swamp	SWT-Mrk5			SWT-Mrk5 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> White spruce lead with a variety of possible associates
							n	Rock Non-Calcareous Mixedwood Swamp	SWT-Mrn1			SWT-Mrn1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
								Maple Rock Non-Calcareous Mixedwood Swamp	SWT-Mrn2			SWT-Mrn2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Typically red maple, silver maple, or Freeman's maple lead with eastern hemlock, balsam fir, eastern white pine, tamarack, white birch (paper birch), yellow birch, balsam poplar and trembling aspen Dominant species will vary
								White Cedar Rock Non-Calcareous Mixedwood Swamp	SWT-Mrn3			SWT-Mrn3 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Eastern white cedar with black ash, yellow birch, white birch (paper birch), red maple, eastern hemlock and balsam fir
								White Spruce +/- Birch Rock Non-Calcareous Mixedwood Swamp	SWT-Mrn4			SWT-Mrn4 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> White spruce and/or birch species as the lead in the canopy, possible associates include green ash, black ash, trembling aspen, balsam fir, white cedar, red maple, balsam poplar and/or white elm
								Hemlock +/- Yellow Birch +/- Maple Rock Non-Calcareous Mixedwood Swamp	SWT-Mrn5			SWT-Mrn5 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Two or three of eastern hemlock, red maple and/or yellow birch Associates include black ash and green ash Dominant species may vary
							Mineral	White Cedar Mineral Mixedwood Swamp	SWT-Mm1			SWT-Mm1 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Eastern white cedar with white birch (paper birch), yellow birch, green ash, black ash, trembling aspen, balsam fir, red maple, balsam poplar and white elm
								Hemlock +/- Yellow Birch +/- Maple Mineral Mixedwood Swamp	SWT-Mm2			SWT-Mm2 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer Typically in hummock and hollow, complex microtopography 	<ul style="list-style-type: none"> Two or three of eastern hemlock, red maple and/or yellow birch Associates include black ash and green ash Dominant species may vary
								Maple Mineral Mixedwood Swamp	SWT-Mm3			SWT-Mm3 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Typically red maple, silver maple, or Freeman's maple lead with eastern hemlock, balsam fir, eastern white pine, tamarack, paper birch, yellow birch, balsam poplar and trembling aspen Dominant species will vary
								Birch +/- Poplar Mineral Mixedwood Swamp	SWT-Mm4			SWT-Mm4 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> White birch (paper birch), yellow birch, trembling aspen, balsam poplar with eastern hemlock, balsam fir and eastern white pine Hardwood dominated mixed-woods
								Ash Mineral Mixedwood Swamp	SWT-Mm5			SWT-Mm5 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Green ash and/or black ash lead in canopy with a variety of potential associates Associates may include eastern white cedar, American elm, balsam fir, paper birch, yellow birch, and/or red maple
								Mineral Mixedwood Swamp	SWT-Mm6			SWT-Mm6 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Eastern hemlock, balsam fir and eastern white pine, with white birch (paper birch), yellow birch, trembling aspen, balsam poplar Conifer dominated mixed-woods
							Organic	White Cedar Organic Mixedwood Swamp	SWT-Mo1			SWT-Mo1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Eastern white cedar with black ash, yellow birch, white birch (paper birch), red maple, eastern hemlock and balsam fir

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
										Hemlock +/- Yellow Birch +/- Maple Organic Mixedwood Swamp	SWT-Mo2			SWT-Mo2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Two or three of eastern hemlock, red maple and/or yellow birch Associates include black ash and green ash Dominant species may vary Intermediate swamp conditions
										Maple Organic Mixedwood Swamp	SWT-Mo3			SWT-Mo3 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Red maple, silver maple, and/or Freeman's maple with eastern hemlock, balsam fir, eastern white pine and tamarack
										Spruce +/- Larch Organic Mineral Mixedwood Swamp	SWT-Mo4			SWT-Mo4 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Tamarack and/or spruce species lead in canopy Associates include American elm, balsam poplar, white birch (paper birch), white cedar, trembling aspen, and red maple
										Birch +/- Poplar Organic Mixedwood Swamp	SWT-Mo5			SWT-Mo5 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Yellow birch, white birch (paper birch), trembling aspen, balsam poplar with eastern hemlock, balsam fir, eastern white pine and tamarack
										Organic Mixedwood Swamp	SWT-Mo6			SWT-Mo6 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Balsam fir, black spruce, eastern hemlock, eastern white pine, with yellow birch, paper birch, trembling aspen, balsam poplar
					Hardwood				Rock	Rock Calcareous Hardwood Swamp	SWT-Hrk1			SWT-Hrk1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
										Poplar +/- Birch Rock Calcareous Hardwood Swamp	SWT-Hrk2			SWT-Hrk2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Yellow birch, white birch (paper birch), trembling aspen, balsam poplar with eastern hemlock, balsam fir, eastern white pine and tamarack
										Oak Rock Calcareous Hardwood Swamp	SWT-Hrk3			SWT-Hrk3 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Swamp white oak, bur oak, pin oak, Shumard oak with shagbark hickory, green ash, red maple, swamp maple, white elm, shellbark hickory and bitternut hickory
									n	Rock Non-Calcareous Hardwood Swamp	SWT-Hrn1			SWT-Hrn1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> This ecosite is reserved for vegetation characteristics that do not follow the structure of the keys
									Coarse	Coarse Mineral Hardwood Swamp	SWT-Hm1	SWT-Hm1 (B)	SWT-Hm1 (G)	SWT-Hm1 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer Common on floodplains 	<ul style="list-style-type: none"> Less common associations of willow species, white elm, white birch (paper birch), trembling aspen and yellow birch
										Poplar +/- Birch Coarse Mineral Hardwood Swamp	SWT-Hm2	SWT-Hm2 (B)	SWT-Hm2 (G)	SWT-Hm2 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates
										Ash +/- White Elm Coarse Mineral Hardwood Swamp	SWT-Hm3	SWT-Hm3 (B)	SWT-Hm3 (G)	SWT-Hm3 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Black ash, green ash with red maple, white elm, swamp maple and silver maple
										Oak Coarse Mineral Hardwood Swamp	SWT-Hm4	SWT-Hm4 (B)	SWT-Hm4 (G)	SWT-Hm4 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Swamp white oak, bur oak, pin oak, Shumard oak with shagbark hickory, green ash, red maple, swamp maple, white elm, shellbark hickory and bitternut hickory
										Silver Maple +/- Freeman's Maple Coarse Mineral Hardwood Swamp	SWT-Hm5	SWT-Hm5 (B)	SWT-Hm5 (G)	SWT-Hm5 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Silver maple, and/or Freeman's maple lead in the canopy with associates of green ash, red maple, yellow birch, American elm, and/or black ash
										Red Maple Coarse Mineral Hardwood Swamp	SWT-Hm6	SWT-Hm6 (B)	SWT-Hm6 (G)	SWT-Hm6 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Red maple lead with associates of yellow birch, black ash, green ash, sugar maple and balsam fir.
										Oak + Maple Coarse Mineral Hardwood Swamp	SWT-Hm7	SWT-Hm7 (B)	SWT-Hm7 (G)	SWT-Hm7 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Oak and maple leads in the canopy including a combination of northern red oak, white oak, bur oak, red maple, sugar maple, and/or black maple Associates include shagbark hickory, bitternut hickory, green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam Represents the wetland extent of the gradient between forest and swamp (terrestrial-wetland interface)
									Fine	Fine Mineral Hardwood Swamp	SWT-Hm8	SWT-Hm8 (B)	SWT-Hm8 (G)	SWT-Hm8 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer Common on floodplains 	<ul style="list-style-type: none"> Less common associations of willow species, white elm, white birch (paper birch), trembling aspen and yellow birch
										Poplar +/- Birch Fine Mineral Hardwood Swamp	SWT-Hm9	SWT-Hm9 (B)	SWT-Hm9 (G)	SWT-Hm9 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation <40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Trembling aspen, large-toothed aspen and/or white birch (paper birch) are lead species in canopy with red maple, northern red oak, sugar maple, white ash, eastern hop-hornbeam, and/or black cherry associates

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Organic										Ash +/- White Elm Fine Mineral Hardwood Swamp	SWT-Hm10	SWT-Hm10 (B)	SWT-Hm10 (G)	SWT-Hm10 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Black ash, green ash with red maple, white elm, swamp maple and silver maple
										Oak Fine Mineral Hardwood Swamp	SWT-Hm11	SWT-Hm11 (B)	SWT-Hm11 (G)	SWT-Hm11 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Swamp white oak, bur oak, pin oak, Shumard oak with shagbark hickory, green ash, red maple, swamp maple, white elm, shellbark hickory and bitternut hickory
										Silver Maple +/- Freeman's Maple Fine Mineral Hardwood Swamp	SWT-Hm12	SWT-Hm12 (B)	SWT-Hm12 (G)	SWT-Hm12 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Silver maple, and/or Freeman's maple lead in the canopy with associates of green ash, red maple, yellow birch, American elm, and/or black ash
										Red Maple Fine Mineral Hardwood Swamp	SWT-Hm13	SWT-Hm13 (B)	SWT-Hm13 (G)	SWT-Hm13 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Red maple lead with associates of yellow birch, black ash, green ash, sugar maple and balsam fir.
										Carolinian Fine Mineral Hardwood Swamp	SWT-Hm14			SWT-Hm14 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Must have >30% relative cover of Carolinian species
										Oak + Maple Fine Mineral Hardwood Swamp	SWT-Hm15	SWT-Hm15 (B)	SWT-Hm15 (G)	SWT-Hm15 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Oak and maple leads in the canopy including a combination of northern red oak, white oak, bur oak, red maple, sugar maple, and/or black maple Associates include shagbark hickory, bitternut hickory, green ash, American elm, American beech, American basswood, and/or eastern hop-hornbeam Represents the wetland extent of the gradient between forest and swamp (terrestrial-wetland interface)
										Ash Organic Hardwood Swamp	SWT-Ho1	SWT-Ho1 (B)	SWT-Ho1 (G)	SWT-Ho1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Black ash and/or green ash leads in canopy, associates vary
										Maple Organic Hardwood Swamp	SWT-Ho2	SWT-Ho2 (B)	SWT-Ho2 (G)	SWT-Ho2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Maple lead in canopy with associated eastern hemlock, yellow birch, balsam fir, eastern white cedar, black ash, paper birch, green ash and/or eastern white pine
										Organic Hardwood Swamp	SWT-Ho3	SWT-Ho3 (B)	SWT-Ho3 (G)	SWT-Ho3 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> White birch (paper birch), yellow birch, trembling aspen and balsam poplar
Shrub Swamp															Shrub swamps represent either an intermediate wetland condition between the more flooded marshes and the less flooded treed swamps or represents an intermediate successional stage between them.	Often occurring as an intermediate band of vegetation along shorelines and flooded landscapes, where the level of flooding and disturbance is enough to select for hydrophytic shrub species over tree species (<25%). Depending on the severity of site conditions, vegetation can vary from severe low and stunted shrubs to where less limited conditions lead to taller thickets, along disturbance, moisture, fertility, and material type gradients.
Low Shrub Swamp															Low shrub swamps (<2 m) reflect one of two legacies, either intermediate in environmental severity leading to stunted growth of shrubs, or where there is secondary woody succession after a disturbance that have novel or unique wetland shrub species compositions.	Low shrub swamps here have a restricted definition to those low shrub wetland communities that exceed 25% shrub cover and maintained naturally by limitations usually giving rise to a unique flora. Furthermore, low shrub swamps are only applied to unique and often weedy associations that arise from anthropogenic disturbance and are naturalized in origin.
										k Calcareous Rock Low Shrub Swamp	SSL-r1			SSL-r1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) 	<ul style="list-style-type: none"> Shrub species are maintained at a low height due to environmental limitation or successional factors (not age)
										n Non-Calcareous Rock Low Shrub Swamp	SSL-r2			SSL-r2 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Shrub species are maintained at a low height due to environmental limitation or successional factors (not age)
										Mineral Low Shrub Swamp	SSL-m1			SSL-m1 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Shrub species are maintained at a low height due to environmental limitation or successional factors (not age)
										Organic Low Shrub Swamp	SSL-o1			SSL-o1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Shrub species are maintained at a low height due to environmental limitation or successional factors (not age)
Thicket Swamp															Shrub swamps occur where wetland ecological gradients are limiting yet can support larger and taller shrub species assemblages that exceed 25% cover. Natural open to closed thicket swamps sort out along local climate, soil depth, texture, moisture, and fertility gradients, which select for certain species associations.	Recurring wetland species associations along such gradients represent natural treed swamp vegetation types.
Rock										k Calcareous Rock Deciduous Thicket Swamp	SST-rk1			SST-rk1 (S)	<ul style="list-style-type: none"> Thin veneer of mineral or organic material over sedimentary rock (e.g., limestone, dolostone) with high calcareous content, fizzes with acid (pH >7.5) Hydric site that is very moist to wet and has periods of seasonal inundation 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket

History	System	Community Class	Community Series	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
											n	Non-Calcareous Rock Deciduous Thicket Swamp	SST-rn1			SST-rn1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Thin veneer of mineral or organic material over igneous and metamorphic rocks containing >66% silica, low calcareous content, no fizz with acid (pH <7.5) 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
									Mineral			Mineral Deciduous Thicket Swamp	SST-m1	SST-m1 (B)	SST-m1 (G)	SST-m1 (S)	<ul style="list-style-type: none"> Mineral and peaty phase mineral substrates (organic accumulation ≤40 cm over mineral) Hydric site that is very moist to wet and has periods of seasonal inundation Flooding duration is typically short – substrate aerated by early to mid-summer 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket
									Organic			Organic Deciduous Thicket Swamp	SST-o1	SST-o1 (B)	SST-o1 (G)	SST-o1 (S)	<ul style="list-style-type: none"> Hydric site that is very moist to wet and has periods of seasonal inundation Organic substrates >40 cm 	<ul style="list-style-type: none"> Tall shrub (>2 m height) cover >25% Predominantly tall woody shrub species associations where historical land use removed natural cover and site is in the mid stages of succession with woody species ingress Depending on stage and moisture availability, shrub cover will vary from patchy and scattered to more closed thicket

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Fen															Fens are deep organic peatlands where the brown moss surface is rarely flooded, but always saturated, with a chemistry that ranges from slightly alkaline to mildly non-calcareous. These minerotrophic peatlands, having limited hydrological connection and cooler microclimates, accumulate brown moss or sedge peat in excess of 40 cm on the surface of lowland permanently saturated materials.	The fen flora is made up of unique sedge, grass and low shrub indicators that typically dominate these organic peat wetland ecosystems. Tree cover is mostly low and scattered (<25%), and typically limited to cedar or tamarack, whose brown tones, along with the moss, are used as photo-interpretation cues for fens.
Open Fen															Open fens occur in areas along flarks where water levels are highest.	Vegetation is limited mostly to herbaceous species, where absolute tree cover is less than 10% and shrub cover is less than 25%.
Coastal Open Fen																
										Coastal Open Fen	FEOc-1	FEOc-1 (B)	FEOc-1 (G)	FEOc-1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Associated with a Great Lake shoreline 	<ul style="list-style-type: none"> Dominated by typical fen flora rich in graminoid and forb species Shrub and tree species present but typically low (tree cover < 10% and shrub cover <25%)
										Coastal Open Shore Fen	FEOc-f1	FEOc-f1 (B)	FEOc-f1 (G)	FEOc-f1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Associated with a Great Lake shoreline 	<ul style="list-style-type: none"> Dominated by typical fen flora rich in graminoid and forb species Shrub and tree species present but typically low (tree cover < 10% and shrub cover <25%)
Open Fen																
										Open Shore Fen	FEOf-1	FEOf-1 (B)	FEOf-1 (G)	FEOf-1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials 	<ul style="list-style-type: none"> Dominated by graminoid species that are tolerant of the nutrient poor conditions of the substrate
										Poor Open Fen	FEOf-1	FEOf-1 (B)	FEOf-1 (G)	FEOf-1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient poor and non-calcareous 	<ul style="list-style-type: none"> Dominated by graminoid species that are tolerant of the nutrient poor conditions of the substrate
										Rich Open Fen	FEOf-2	FEOf-2 (B)	FEOf-2 (G)	FEOf-2 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient rich and calcareous 	<ul style="list-style-type: none"> Dominated by a variety of grasses, rushes and sedges Increase in biodiversity is a response to nutrient rich soils
										Extremely Rich Open Fen	FEOf-3	FEOf-3 (B)	FEOf-3 (G)	FEOf-3 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient rich and calcareous 	<ul style="list-style-type: none"> Dominated by a variety of grasses, rushes and sedges Increase in biodiversity is a response to nutrient rich soils
Woody Fen															Woody fens occur where underlying surface features raise the organic peat surface above the water table enough to permit woody shrub and tree species establishment.	Typically following gradients of severity in flooding will be either shrub fens, if tree cover is less than 10% and shrub cover is greater than 25%, or treed fens if tree cover exceeds 10%.
Coastal Woody Fen																
										Shrub						
										Coastal Shrub Fen	FEWc-S1	FEWc-S1 (B)	FEWc-S1 (G)	FEWc-S1 (S)	<ul style="list-style-type: none"> Directly influenced by a Great Lake Substrate characterized by deep peat and other organic materials 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils
										Coastal Shrub Shore Fen	FEWc-Sf1	FEWc-Sf1 (B)	FEWc-Sf1 (G)	FEWc-Sf1 (S)	<ul style="list-style-type: none"> Directly influenced by a Great Lake Substrate characterized by deep peat and other organic materials 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils
										Treed						
										Coastal Treed Fen	FEWc-T1	FEWc-T1 (B)	FEWc-T1 (G)	FEWc-T1 (S)	<ul style="list-style-type: none"> Directly influenced by a Great Lake Substrate characterized by deep peat and other organic materials 	<ul style="list-style-type: none"> Tree cover >10% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils
Woody Fen																
										Shrub						
										Shrub Shore Fen	FEW-Sf1	FEW-Sf1 (B)	FEW-Sf1 (G)	FEW-Sf1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient poor and non-calcareous 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with graminoid species that are tolerant of the nutrient poor conditions of the substrate
										Poor Shrub Fen	FEW-S1	FEW-S1 (B)	FEW-S1 (G)	FEW-S1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient poor and non-calcareous 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with graminoid species that are tolerant of the nutrient poor conditions of the substrate
										Rich Shrub Fen	FEW-S2	FEW-S2 (B)	FEW-S2 (G)	FEW-S2 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient rich and calcareous 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils.
										Extremely Rich Shrub Fen	FEW-S3	FEW-S3 (B)	FEW-S3 (G)	FEW-S3 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials Nutrient rich and calcareous 	<ul style="list-style-type: none"> Tree cover ≤10%, shrub cover >25% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils
										Treed						
										Poor Treed Fen	FEW-T1	FEW-T1 (B)	FEW-T1 (G)	FEW-T1 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials 	<ul style="list-style-type: none"> Tree cover >10% Also associated with a variety of grasses, rushes and sedges - Biodiversity increases in response to nutrient rich soils
										Rich Treed Fen	FEW-T2	FEW-T2 (B)	FEW-T2 (G)	FEW-T2 (S)	<ul style="list-style-type: none"> Substrate characterised by deep peat and other organic materials 	<ul style="list-style-type: none"> Tree cover >10% Also associated with a variety of grasses, rushes and sedges. - Biodiversity increases in response to nutrient rich soils.

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Bog															Bogs are deep peatlands where the Sphagnum moss surface is rarely flooded, but always saturated, with a chemistry that is mildly to strongly acidic. These ombrotrophic peatlands, are hydrologically isolated, receiving their moisture primarily from precipitation. Low in fertility and cooler microclimates, such sites accumulate Sphagnum moss peat in excess of 40 cm on the surface of lowland permanently saturated materials.	The bog flora is made up of unique, often evergreen or ericaceous, shrub indicators that typically dominate these organic peat wetland ecosystems. Tree cover is mostly low and scattered (<25%), and typically limited to black spruce, maybe with tamarack.
Open Bog															Woody bogs occur where underlying surface features raise the organic peat surface above the water table enough to permit woody shrub and tree species establishment.	
										Open Bog	BOO-1	BOO-1 (B)	BOO-1 (G)	BOO-1 (S)	<ul style="list-style-type: none">Substrate characterised by deep peat and other organic materials	<ul style="list-style-type: none">Dominated by typical bog flora rich in graminoid and forb speciesShrub and tree species present but typically low (tree cover < 10% and shrub cover <25%)
Woody Bog															Woody bogs occur where underlying surface features raise the organic peat surface above the water table enough to permit woody shrub and tree species establishment.	Woody bogs are typically a low evergreen or ericaceous shrub community characterized by bog indicators. Treed bogs occur where sparse, low, and scattered black spruce, maybe tamarack, tree cover exceeds 10% yet is typically limited to less than 25% cover.
Shrub										Shrub Bog	BOW-S1	BOW-S1 (B)	BOW-S1 (G)	BOW-S1 (S)	<ul style="list-style-type: none">Substrate characterised by deep peat and other organic materials	<ul style="list-style-type: none">Tree cover ≤10%, shrub cover >25%Ground cover dominated by Sphagnum species and sedges (e.g., <i>Carex oligosperma</i>)
										Shrub Kettle Bog	BOW-S2	BOW-S2 (B)	BOW-S2 (G)	BOW-S2 (S)	<ul style="list-style-type: none">Substrate characterised by deep peat and other organic materialsFound in kettle depressions	<ul style="list-style-type: none">Tree cover ≤10%, shrub cover >25%Ground cover dominated by Sphagnum species and sedges (e.g., <i>Carex oligosperma</i>)
Treed										Treed Bog	BOW-T1	BOW-T1 (B)	BOW-T1 (G)	BOW-T1 (S)	<ul style="list-style-type: none">Substrate characterised by deep peat and other organic materials	<ul style="list-style-type: none">Tree cover >10%Ground cover dominated by Sphagnum species and sedges (e.g., <i>Carex oligosperma</i>)
										Treed Kettle Bog	BOW-T2	BOW-T2 (B)	BOW-T2 (G)	BOW-T2 (S)	<ul style="list-style-type: none">Substrate characterised by deep peat and other organic materialsFound in kettle depressions	<ul style="list-style-type: none">Tree cover >10%Ground cover dominated by Sphagnum species and sedges (e.g., <i>Carex oligosperma</i>)
Marsh															Marshes are vegetated sites on hydric shoreline or palustrine sites subject to seasonal or more long-term flooding of rock, mineral or organic muck substrates.	The extent and duration of flooding, along with other shoreline and wetland processes, make such sites inhibitive to woody species establishment and are instead characterized by greater than 10% herbaceous wetland vegetation cover. Type of marsh is driven most by depth and duration of flooding, and secondarily whether the site is rock, mineral, or organic substrate.
Meadow Marsh															Meadow marshes occur on hydric sites with periodic and seasonal flooding, where the substrate surface is exposed later in the season when the water table dips below the surface.	While the flooding regime inhibits most woody vegetation, herbaceous vegetation will vary from sparse (10–25%) in dynamic environments to near continuous vegetation cover on more sheltered rich sites.
Great Lakes Coastal Meadow Marsh																
Rock										Great Lakes Coastal Rock Meadow Marsh	MAMc-Gr1	MAMc-Gr1 (B)	MAMc-Gr1 (G)	MAMc-Gr1 (S)	<ul style="list-style-type: none">Hydric bedrock or coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connectionWith less than 5 cm of mineral on top, rock may be calcareous or non-calcareousTypically sheltered less energetic sites	<ul style="list-style-type: none">Need field data to identify the unique endemic flora of Great Lakes shoreline meadow marshesTypically sparsely vegetated in cracks and pockets of residual on rock or between coarse fragmentsPlant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changes
Mineral										Great Lakes Coastal Mineral Meadow Marsh	MAMc-Gm1	MAMc-Gm1 (B)	MAMc-Gm1 (G)	MAMc-Gm1 (S)	<ul style="list-style-type: none">Hydric mineral, typically sandy, shoreline substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection; such as protected embayments, sand spit embayments, swale (dune) complexes, barrier beach lagoonsTypically sheltered less energetic sites	<ul style="list-style-type: none">Need field data to identify the unique endemic flora of Great Lakes shoreline meadow marshesSparsely vegetated, graminoid, and stunted in natureVegetation types vary between, as well as north/south climate differences
Coastal Meadow Marsh																
Rock										Coastal Rock Meadow Marsh	MAMc-r1	MAMc-r1 (B)	MAMc-r1 (G)	MAMc-r1 (S)	<ul style="list-style-type: none">Hydric bedrock or coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connectionWith less than 5 cm of mineral on top, rock may be calcareous or non-calcareousTypically less sheltered more energetic exposed sites	<ul style="list-style-type: none">Typically sparsely vegetated in cracks and pockets of residual on rock or between coarse fragmentsPlant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changesUnique plant species assemblages and some endemic to the Great Lakes shorelines
Mineral										Coastal Mineral Meadow Marsh	MAMc-m1	MAMc-m1 (B)	MAMc-m1 (G)	MAMc-m1 (S)	<ul style="list-style-type: none">Hydric mineral, typically sandy, shoreline substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connectionIncludes all shoreline types, especially exposed and energetic open lacustrine shorelines and connecting channels	<ul style="list-style-type: none">Grasses or sedges usually dominantRicher areas dominated by clonal species
Organic										Coastal Organic Meadow Marsh	MAMc-o1	MAMc-o1 (B)	MAMc-o1 (G)	MAMc-o1 (S)	<ul style="list-style-type: none">On fibric, mesic or humic organic peat substrates – Of, Om, Oh, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connectionSheltered areas where shoreline energy and disturbance are low	<ul style="list-style-type: none">Grasses and sedges usually dominantRich areas often dominated by clonal species e.g., arrowhead species, jewelweed species

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
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Meadow Marsh

								Rock	Rock Meadow Marsh	MAM-r1	MAM-r1 (B)	MAM-r1 (G)	MAM-r1 (S)	Hydric bedrock or coarse fragment substrates · With less than 5 cm of mineral on top, rock may be calcareous or non-calcareous	· Grasses or sedges usually dominant · Vegetation often restricted to cracks and pockets of mineral materials on top of rock
								Mineral	Mineral Meadow Marsh	MAM-m1	MAM-m1 (B)	MAM-m1 (G)	MAM-m1 (S)	· Hydric mineral, typically sandy, periodically inundated substrates · Includes all shoreline and palustrine sites, especially exposed and energetic open lacustrine shorelines and connecting channels	· Grasses or sedges usually dominant · Richer areas dominated by clonal species
								Organic	Organic Meadow Marsh	MAM-o1	MAM-o1 (B)	MAM-o1 (G)	MAM-o1 (S)	· On fibric, mesic or humic organic peat substrates – Of, Om, Oh · Sheltered areas where shoreline energy and disturbance are low	· Grasses and sedges usually dominant · Rich areas often dominated by clonal species e.g., arrowhead species, skunk cabbage, jewelweed species
Emergent Marsh														Emergent marshes occur on sites having shallow water present nearly all year (>11.5 months per year).	Such flooding regimes inhibit nearly all woody vegetation, so vegetation cover consists of herbaceous species, varying from sparse (10–25%) in dynamic environments to near continuous wetland vegetation cover in more sheltered rich sites.

Great Lakes Coastal Emergent Marsh

								Rock	Great Lakes Coastal Rock Emergent Marsh	MAEc-Gr1	MAEc-Gr1 (B)	MAEc-Gr1 (G)	MAEc-Gr1 (S)	· Hydric to limnetic bedrock or coarse fragment substrates, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Areas where site is flooded most of the time and typically sheltered less energetic sites · Bedrock may be calcareous or non-calcareous	· Typically sparsely vegetated, restricted to cracks and pockets of residual on rock or between coarse fragments · Plant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changes · Unique plant species assemblages and some endemic to the Great Lakes shorelines
								Mineral	Great Lakes Coastal Mineral Emergent Marsh	MAEc-Gm1	MAEc-Gm1 (B)	MAEc-Gm1 (G)	MAEc-Gm1 (S)	· Hydric to limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Areas where site is flooded most of the time · Site conditions vary with levels of energy, wave wash and ice scour	· Typically sparsely vegetated, restricted to cracks and pockets of residual on rock or between coarse fragments · Plant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changes · Unique plant species assemblages and some endemic to the Great Lakes shorelines
								Organic	Great Lakes Coastal Organic Emergent Marsh	MAEc-Go1	MAEc-Go1 (B)	MAEc-Go1 (G)	MAEc-Go1 (S)	· On fibric, mesic or humic organic peat substrates – Of, Om, Oh, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Hydric and limnetic substrates typically flooded most of the time · Sheltered areas where shoreline energy and disturbance are low	· Typically more sheltered, less exposed sites · Plant associations vary depth and type of organics
									Great Lakes Coastal Floating Organic Mat Emergent Marsh	MAEc-Gf1	MAEc-Gf1 (B)	MAEc-Gf1 (G)	MAEc-Gf1 (S)	· On fibric organic peat substrates – Of and restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Hydric substrates typically flooded most of the time · Sheltered areas where shoreline energy and disturbance are low	· Typically more sheltered, less exposed sites · Sites flooded most of the time · Plant associations vary depth and type of organics

Coastal Emergent Marsh

								Rock	Coastal Rock Emergent Marsh	MAEc-r1	MAEc-r1 (B)	MAEc-r1 (G)	MAEc-r1 (S)	· Hydric to limnetic bedrock or coarse fragment substrates, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Areas where site is flooded most of the time · Bedrock may be calcareous or non-calcareous	· Typically sparsely vegetated, restricted to cracks and pockets of residual on rock or between coarse fragments · Plant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changes
								Mineral	Coastal Mineral Emergent Marsh	MAEc-m1	MAEc-m1 (B)	MAEc-m1 (G)	MAEc-m1 (S)	· Hydric to limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Areas where site is flooded most of the time · Site conditions vary with levels of energy, wave wash and ice scour	· Vegetation cover will vary with levels of exposure and energy · Plant associations vary exposure, texture and north/south climate changes
								Organic	Coastal Organic Emergent Marsh	MAEc-o1	MAEc-o1 (B)	MAEc-o1 (G)	MAEc-o1 (S)	· On fibric, mesic or humic organic peat substrates – Of, Om, Oh, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Hydric and limnetic substrates typically flooded most of the time · Sheltered areas where shoreline energy and disturbance are low	· Typically more sheltered, less exposed sites · Plant associations vary depth and type of organics
									Coastal Floating Organic Mat Emergent Marsh	MAEc-f1	MAEc-f1 (B)	MAEc-f1 (G)	MAEc-f1 (S)	· On fibric organic peat substrates – Of and restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection · Hydric substrates typically flooded most of the time · Sheltered areas where shoreline energy and disturbance are low	· Typically more sheltered, less exposed sites · Sites flooded most of the time · Plant associations vary depth and type of organics

History System	Community Class Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
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Emergent Marsh

Shallow Water Marsh	Emergent Marsh	Rock	Rock Emergent Marsh	MAE-r1			MAE-r1 (S)	<ul style="list-style-type: none"> Hydric to limnetic bedrock and coarse fragment substrates Sites flooded most of the time 	<ul style="list-style-type: none"> Typically sparsely vegetated, restricted to cracks and pockets of residual on rock or between coarse fragments Plant associations vary because of exposure, rock type (i.e., calcareous or non-calcareous) and north/south climate changes
		Mineral	Mineral Emergent Marsh	MAE-m1	MAE-m1 (B)	MAE-m1 (G)	MAE-m1 (S)	<ul style="list-style-type: none"> Hydric to limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection Areas where site is flooded most of the time Site conditions vary with levels of energy, wave wash and ice scour 	<ul style="list-style-type: none"> Vegetation cover will vary with levels of exposure and energy Plant associations vary exposure, texture and north/south climate changes
		Organic	Organic Emergent Marsh	MAE-o1	MAE-o1 (B)	MAE-o1 (G)	MAE-o1 (S)	<ul style="list-style-type: none"> On fibric, mesic or humic organic peat substrates – Of, Om, Oh, restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection Hydric and limnetic substrates typically flooded most of the time Sheltered areas where shoreline energy and disturbance are low 	<ul style="list-style-type: none"> Typically more sheltered, less exposed sites Sites flooded most of the time Plant associations vary depth and type of organics
			Floating Organic Mat Emergent Marsh	MAE-f1	MAE-f1 (B)	MAE-f1 (G)	MAE-f1 (S)	<ul style="list-style-type: none"> On fibric organic peat substrates – Of and restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection Hydric substrates typically flooded most of the time Sheltered areas where shoreline energy and disturbance are low 	<ul style="list-style-type: none"> Typically more sheltered, less exposed sites Sites flooded most of the time Plant associations vary depth and type of organics
	Shallow Water Marsh							Shallow water marshes represent the deepest water depth rooted vegetation can grow, up to approximately 2 m in depth.	Site is nearly always flooded, selecting for floating leaved or submergent vegetation species, with covers greater than 10%.

Great Lakes Coastal Shallow Water Marsh

Great Lakes Coastal Shallow Water Marsh	Rock	Great Lakes Coastal Rock Floating-leaved Shallow Water Marsh	MASc-Gr1	MASc-Gr1 (B)	MASc-Gr1 (G)	MASc-Gr1 (S)	<ul style="list-style-type: none"> Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
		Great Lakes Coastal Rock Mixed Shallow Water Marsh	MASc-Gr2	MASc-Gr2 (B)	MASc-Gr2 (G)	MASc-Gr2 (S)	<ul style="list-style-type: none"> Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
		Great Lakes Coastal Rock Submergent Shallow Water Marsh	MASc-Gr3	MASc-Gr3 (B)	MASc-Gr3 (G)	MASc-Gr3 (S)	<ul style="list-style-type: none"> Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
	Mineral	Great Lakes Coastal Mineral Floating-leaved Shallow Water Marsh	MASc-Gm1	MASc-Gm1 (B)	MASc-Gm1 (G)	MASc-Gm1 (S)	<ul style="list-style-type: none"> Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
		Great Lakes Coastal Mineral Mixed Shallow Water Marsh	MASc-Gm2	MASc-Gm2 (B)	MASc-Gm2 (G)	MASc-Gm2 (S)	<ul style="list-style-type: none"> Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
		Great Lakes Coastal Mineral Submergent Shallow Water Marsh	MASc-Gm3	MASc-Gm3 (B)	MASc-Gm3 (G)	MASc-Gm3 (S)	<ul style="list-style-type: none"> Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
	Organic	Great Lakes Coastal Organic Floating-leaved Shallow Water Marsh	MASc-Go1	MASc-Go1 (B)	MASc-Go1 (G)	MASc-Go1 (S)	<ul style="list-style-type: none"> Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
		Great Lakes Coastal Organic Mixed Shallow Water Marsh	MASc-Go2	MASc-Go2 (B)	MASc-Go2 (G)	MASc-Go2 (S)	<ul style="list-style-type: none"> Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
		Great Lakes Coastal Organic Submergent Shallow Water Marsh	MASc-Go3	MASc-Go3 (B)	MASc-Go3 (G)	MASc-Go3 (S)	<ul style="list-style-type: none"> Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection mostly sheltered low energy shoreline sites that are always flooded 	<ul style="list-style-type: none"> Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
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Coastal Shallow Water Marsh

Rock	Coastal Rock Floating-leaved Shallow Water Marsh	MASc-r1	MASc-r1 (B)	MASc-r1 (G)	MASc-r1 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Coastal Rock Mixed Shallow Water Marsh	MASc-r2	MASc-r2 (B)	MASc-r2 (G)	MASc-r2 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Coastal Rock Submergent Shallow Water Marsh	MASc-r3	MASc-r3 (B)	MASc-r3 (G)	MASc-r3 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
Mineral	Coastal Mineral Floating-leaved Shallow Water Marsh	MASc-m1	MASc-m1 (B)	MASc-m1 (G)	MASc-m1 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Coastal Mineral Mixed Shallow Water Marsh	MASc-m2	MASc-m2 (B)	MASc-m2 (G)	MASc-m2 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Coastal Mineral Submergent Shallow Water Marsh	MASc-m3	MASc-m3 (B)	MASc-m3 (G)	MASc-m3 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
Organic	Coastal Organic Floating-leaved Shallow Water Marsh	MASc-o1	MASc-o1 (B)	MASc-o1 (G)	MASc-o1 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Coastal Organic Mixed Shallow Water Marsh	MASc-o2	MASc-o2 (B)	MASc-o2 (G)	MASc-o2 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Coastal Organic Submergent Shallow Water Marsh	MASc-o3	MASc-o3 (B)	MASc-o3 (G)	MASc-o3 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates restricted to the Great Lakes shorelines, and nearshore areas that have a hydrological connection • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation

Shallow Water Marsh

Rock	Rock Floating-leaved Shallow Water Marsh	MAS-r1			MAS-r1 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Rock Mixed Shallow Water Marsh	MAS-r2			MAS-r2 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Rock Submergent Shallow Water Marsh	MAS-r3			MAS-r3 (S)	<ul style="list-style-type: none"> • Limnetic bedrock and coarse fragment substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
Mineral	Mineral Floating-leaved Shallow Water Marsh	MAS-m1	MAS-m1 (B)	MAS-m1 (G)	MAS-m1 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Mineral Mixed Shallow Water Marsh	MAS-m2	MAS-m2 (B)	MAS-m2 (G)	MAS-m2 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Mineral Submergent Shallow Water Marsh	MAS-m3	MAS-m3 (B)	MAS-m3 (G)	MAS-m3 (S)	<ul style="list-style-type: none"> • Limnetic mineral substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation
Organic	Organic Floating-leaved Shallow Water Marsh	MAS-o1	MAS-o1 (B)	MAS-o1 (G)	MAS-o1 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation
	Organic Mixed Shallow Water Marsh	MAS-o2	MAS-o2 (B)	MAS-o2 (G)	MAS-o2 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation
	Organic Submergent Shallow Water Marsh	MAS-o3	MAS-o3 (B)	MAS-o3 (G)	MAS-o3 (S)	<ul style="list-style-type: none"> • Limnetic organic substrates • mostly sheltered low energy shoreline sites that are always flooded 	• Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics	
Aquatic															Permanent pond, lake, stream or river ecosystems occur across our landscape where permanent water has accumulated from drainage or precipitation, and can have rock, mineral or organic substrates underlying them.	Aquatic, or permanently flooded, unvegetated sites occur where the water table is always above the substrate surface, either deeper than 2 m, or where secondary processes like energy are keeping vegetation from establishing.	
Unvegetated Ephemeral Aquatic															Unvegetated ephemeral aquatic occurs where flooding has been excessive and long enough that vegetation establishment has been inhibited, yet the substrate seasonally, periodically, or unexpectedly gets exposed. Most of these features occur at the finer site scale where vernal pooling, seeps, and creek beds give rise to unvegetated wet conditions.	Unpredictable low water cycles can expose shoreline substrates where vegetation has not yet established, and present as broader scale and mappable unit called flats.	
Unvegetated Ephemeral Aquatic Pond															Unvegetated ephemeral aquatic pool is typically a fine scale site feature called a vernal pool.	In these habitats flooding will persist long enough to inhibit vegetation establishment, yet substrate is exposed late season.	
											Rock	Rock Ephemeral Pond	EAP-r1		EAP-r1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic bedrock or coarse fragment substrates, with MR ≥9• More often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Identified by dark staining, accumulations of black organic leaf litter, black crusty marl or oatmeal marl when on calcareous rich materials	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., vernal pools under a canopy) severely limits vegetation
											Mineral	Mineral Ephemeral Pond	EAP-m1		EAP-m1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic mineral substrates, with MR ≥9• More often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Identified by dark staining, accumulations of black organic leaf litter, black crusty marl or oatmeal marl when on calcareous rich materials	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., vernal pools under a canopy) severely limits vegetation
											Organic	Organic Ephemeral Pond	EAP-o1		EAP-o1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic organic substrates, with MR ≥9• More often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Identified by dark staining, accumulations of black organic leaf litter, black crusty marl or oatmeal marl when on calcareous rich materials	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., vernal pools under a canopy) severely limits vegetation
Unvegetated Ephemeral Aquatic Creek Bed															Unvegetated ephemeral aquatic creek bed is typically a fine scale site feature called an ephemeral creek.	In these habitats flooding persists long enough to inhibit vegetation establishment, yet substrate is exposed late season.	
											Rock	Rock Ephemeral Creek Bed	EAC-r1		EAC-r1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic bedrock or coarse fragment substrates, with MR ≥9• Often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Clear linear running water course with banks and recognizable dark staining	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., ephemeral creeks under a canopy) severely limits vegetation
											Mineral	Mineral Ephemeral Creek Bed	EAC-m1		EAC-m1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic mineral substrates, with MR ≥9• Often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Clear linear water course with banks and recognizable dark staining	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., ephemeral creeks under a canopy) severely limits vegetation
											Organic	Organic Ephemeral Creek Bed	EAC-o1		EAC-o1 (S)	<ul style="list-style-type: none">• Occurring on hydric or limnetic organic substrates, with MR ≥9• Often occurring at finer scales as vernal pools, and less often at mappable scales, with flooding typically greater than 10 months• Clear linear water course with banks and recognizable dark staining	<ul style="list-style-type: none">• Feature identified by a lack of significant vegetation cover, typically less than 25%• Excessive inundation along with excessive shading usually (i.e., ephemeral creeks under a canopy) severely limits vegetation
Unvegetated Ephemeral Aquatic Mudflat															Unvegetated ephemeral aquatic flat is typically where shorelines have unpredictably subjected to low water levels.	The periodic low waterlevels expose substrates that do not have an established seed bed, and therefore present as just an exposed substrate surface.	
Unvegetated Ephemeral Aquatic Seep															Unvegetated ephemeral aquatic seep or spring typically occurs at base of slopes where drainage gives rise to excessive water being discharged. Typically localized and fine scale features where such drainage and seepage occurs.	In these habitats the excess moving cool water inhibits vegetation establishment.	

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics		
Open Water															Open water aquatic sites include deep ponds, lakes, creeks, streams, and rivers.	Sites are unvegetated and different ecological drivers select for floating algae, phytoplankton, and fish life.		
Open Water Lacustrine															Open deep, unvegetated, still water aquatic ponds and lakes.	These sites are unvegetated.		
Coastal Open Water Lacustrine																		
									Rock	Coastal Rock Open Water Lacustrine	OALc-r1	OALc-r1 (B)	OALc-r1 (G)	OALc-r1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic bedrock or coarse fragment substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Mineral	Coastal Mineral Open Water Lacustrine	OALc-m1	OALc-m1 (B)	OALc-m1 (G)	OALc-m1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic mineral substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Organic	Coastal Organic Open Water Lacustrine	OALc-o1	OALc-o1 (B)	OALc-o1 (G)	OALc-o1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic organic substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
Open Water Lacustrine																		
									Rock	Rock Open Water Lacustrine	OAL-r1	OAL-r1 (B)	OAL-r1 (G)	OAL-r1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic bedrock or coarse fragment substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Mineral	Mineral Open Water Lacustrine	OAL-m1	OAL-m1 (B)	OAL-m1 (G)	OAL-m1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic mineral substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Organic	Organic Open Water Lacustrine	OAL-o1	OAL-o1 (B)	OAL-o1 (G)	OAL-o1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic organic substrates, MR = 10- Associated directly with still water lake or pond shorelines, or nearshore area where water table is controlled by lake or pond levels	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
Open Water Riverine															Open deep, unvegetated, moving water aquatic creeks, streams, and rivers.		These sites are unvegetated.	
									Rock	Rock Open Water Riverine	OAR-r1	OAR-r1 (B)	OAR-r1 (G)	OAR-r1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic bedrock or coarse fragment substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Mineral	Mineral Open Water Riverine	OAR-m1	OAR-m1 (B)	OAR-m1 (G)	OAR-m1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic mineral substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Organic	Organic Open Water Riverine	OAR-o1	OAR-o1 (B)	OAR-o1 (G)	OAR-o1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic organic substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
Open Water Palustrine															Open, deep, unvegetated water that is fed by groundwater sources and not lacustrine or riverine features.		These sites are unvegetated.	
									Rock	Rock Open Water Palustrine	OAP-r1			OAP-r1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic bedrock or coarse fragment substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Mineral	Mineral Open Water Palustrine	OAP-m1			OAP-m1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic mineral substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		
									Organic	Organic Open Water Palustrine	OAP-o1			OAP-o1 (S)	<ul style="list-style-type: none">- Inundation exceeds 11.5 months of the year- Limnetic organic substrates, MR = 10- Associated directly with running water creek, stream, or river shorelines, or nearshore area where water table is controlled	<ul style="list-style-type: none">- If present, vascular vegetation cover is less than 25%- mostly a phytoplankton dominated aquatic system		

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Anthropogenic																
Terrestrial															Terrestrial, or upland, sites occur where the water table is rarely above the substrate surface or where surface materials are rarely saturated for long periods. Such sites occur on dry, fresh, and moist, non-hydric sites, with moisture regimes <S. Topography positions of these sites results in water shedding, where vernal pooling makes up <20% of the surface and the substrates may consist of parent material, mineral soil, rock and bedrock, or terrestrial folic organic materials.	Subtle moisture differences between sites may be reflected by the vegetation changes along those moisture gradients. Terrestrial sites, when vegetated, have a vegetation composition made up of mostly facultative, facultative upland and upland species. Community assembly and vegetation composition reflect the hierarchy of ecological influence and include high energy active and dynamic sites along with upland rocklands, cliffs, and bluffs.
Agriculture															Agricultural lands are actively managed for crop production.	Clear, regularly spaced rows of herbaceous or woody vegetation are evident with minimal to no natural ingress.
Open Agriculture															Often in areas with substantial cover of bare soil for significant periods of the year, usually determined by tillage or chemical treatment	Dominant herbaceous vegetation that is regularly spaced and or growing in rows
									Open Active Agriculture	AGO-1	AGO-1 (B)	AGO-1 (G)	AGO-1 (S)	<ul style="list-style-type: none"> Active and ongoing site alterations to maintain ideal growing conditions for crops: tillage, spraying, watering 		Non-woody food crop production (e.g., corn, soy, wheat)
Woody Agriculture															Often in areas with substantial cover of bare soil for significant periods of the year, usually determined by tillage or chemical treatment	Woody vegetation is regularly spaced and planted in rows with distinct edges and <30% ingress.
									Woody Agriculture	AGW-1			AGW-1 (S)	<ul style="list-style-type: none"> Active and ongoing site alterations to maintain ideal growing conditions for crops: tillage, spraying, watering 		Woody food crop production (e.g., nuts, vineyards, fruit trees)
									Conifer Plantation	AGW-2			AGW-2 (S)	<ul style="list-style-type: none"> Active and ongoing site alterations to maintain ideal growing conditions for trees: harrowing, tending, thinning, vegetation management 		Tree species planted for wood production and poles
									Mixed Plantation	AGW-3			AGW-3 (S)	<ul style="list-style-type: none"> Active and ongoing site alterations to maintain ideal growing conditions for trees: harrowing, tending, thinning, vegetation management 		Tree species planted for wood production and poles
									Hardwood Plantation	AGW-4			AGW-4 (S)	<ul style="list-style-type: none"> Active and ongoing site alterations to maintain ideal growing conditions for trees: harrowing, tending, thinning, vegetation management 		Tree species planted for wood production and poles
Actively Managed															Actively managed sites typically undergo regular maintenance to keep them in a specific form to suit their intended purpose however they are usually not associated with hardened surfaces to the same extent that 'constructed' ecosites are. These sites may include municipal parks / manicured green space, arboreta, golf courses, picnic areas, camping sites, playing fields, common gardens, landfills, etc.	Vegetation on actively managed sites are usually heavily landscaped / maintained.
Constructed																
Constructed Infrastructure															Constructed infrastructure ecosites have a primary purpose / service that they provide that involves a hardened surface. These ecosites may include playgrounds, cemeteries, petroleum storage, sewage treatment plants, hardened shoreline features, etc.	If there is vegetation on constructed sites it is usually heavily landscaped / maintained.
									Anthropogenic Constructed Default	COI-1	COI-1 (B)	COI-1 (G)	COI-1 (S)	<ul style="list-style-type: none"> Site conditions vary but are always associated with a hardened surface 		If vegetation is present it is likely heavily managed / landscaped
									Anthropogenic Shoreline Default	COI-2	COI-2 (B)	COI-2 (G)	COI-2 (S)	<ul style="list-style-type: none"> Site conditions vary but are always associated with a hardened surface 		If vegetation is present it is likely heavily managed / landscaped
Constructed Transportation															Constructed transportation ecosites capture areas designated for the transportation of people, goods, or other resources. These may include roads, highways, hydro-corridors, pipelines, airports, railways, harbours, docklands, marinas, etc.	If there is vegetation on constructed sites it is usually heavily landscaped / maintained.
									Transportation and Related Surfaces	COT-1	COT-1 (B)	COT-1 (G)	COT-1 (S)	<ul style="list-style-type: none"> Site conditions vary but are always associated with a hardened surface 		If vegetation is present it is likely heavily managed / landscaped
									Airports and Runways	COT-2	COT-2 (B)	COT-2 (G)	COT-2 (S)	<ul style="list-style-type: none"> Site conditions vary but are always associated with a hardened surface 		If vegetation is present it is likely heavily managed / landscaped
Constructed Residential															Constructed residential ecosites identify residential structures and their associated property including lawns, gardens, driveways, garages, etc.	If there is vegetation on constructed sites it is usually heavily landscaped / maintained.
									Urban Residential	COR-1	COR-1 (B)	COR-1 (G)	COR-1 (S)	<ul style="list-style-type: none"> Residential areas with more than one street. Adjacent to industrial and commercial ecosite representing a central business area. 		Vegetation associated with private residence. Includes trees and manicured vegetation such as lawns and gardens.
									Rural Residential	COR-2	COR-2 (B)	COR-2 (G)	COR-2 (S)	<ul style="list-style-type: none"> Residential areas restricted to one street. No adjacency to industrial and commercial ecosite representing a central business area. 		Vegetation associated with private residence. Typically manicured such as lawns and gardens
Constructed Commercial Lands															Constructed commercial lands may be used for a variety of other commercial purposes not captured in the community series groupings above.	If there is vegetation on constructed sites it is usually heavily landscaped / maintained.
									Industrial and Commercial	COC-1	COC-1 (B)	COC-1 (G)	COC-1 (S)	<ul style="list-style-type: none"> Industrial and commercial ecosite representing a central business area 		If vegetation is present it is likely heavily managed / landscaped
Wetland															Wetland, or lowland, sites occur where the water table is above the substrate surface or where surface materials are saturated, for long periods. Such sites occur on very moist wet hydric sites, with moisture regimes ≥6. Typically water accumulating topographic positions, where vernal pooling makes up >20% of the surface and the substrates may consist of hydric parent material, mineral soil, rock and bedrock, or peat organic materials.	Differences in flooding cycles and periods of saturation are reflected by the wetland vegetation changes along those moisture gradients. Wetland sites have a vegetation composition made up of mostly facultative, facultative wetland and obligate wetland plant species. Community assembly and vegetation composition reflect the hierarchy of ecological influence and include high energy dynamic sites along with more sheltered mineral, rock or peat sites.
Shallow Water Marshes																
Vegetated Aquatic Floating-leaved																
									Floating-leaved Shallow Aquatic	VAF1			VAF1 (S)	<ul style="list-style-type: none"> Due to past disturbance or ongoing management, environmental conditions vary widely. Substrate is not likely to follow the rules in the moisture regime tables as disturbance will have caused the layers to mix Wetland definitions must still be satisfied (i.e., periodic inundation is still a major feature of the ecosite) 		Vegetation cover is greater than 25%, mostly made up of floating-leaved aquatic vegetation

History System	Community Class	Marine / Coastal	Naturalized	Woody	Conifer / Mixedwood / Hardwood	Moisture	Mineral Family	Substrate	k / n	GLSE Ecosite	GLSE Ecosite Root	Boreal (B)	Great Lakes- St Lawrence (G)	Southern (S)	Site & Soils	Vegetation Characteristics
Vegetated Aquatic Mixed																
Mixed Shallow Aquatic										VAM1				VAM1 (S)	<div>- Due to past disturbance or ongoing management, environmental conditions vary widely. Substrate is not likely to follow the rules in the moisture regime tables as disturbance will have caused the layers to mix</div> <div>- Wetland definitions must still be satisfied (i.e., periodic inundation is still a major feature of the ecosite)</div>	<div>- Vegetation cover is greater than 25%, mostly made up of mixed submergent and floating leaved aquatic vegetation</div>
Vegetated Aquatic Submergent																
Submerged Shallow Aquatic										VAS1				VAS1 (S)		<div>- Vegetation cover is greater than 25%, mostly made up of submergent aquatic vegetation</div>
Aquatic															<div>Permanent pond, lake, stream or river ecosystems occur across our landscape where permanent water has accumulated from drainage or precipitation, and can have rock, mineral or organic substrates underlying them.</div>	<div>Aquatic, or permanently flooded, unvegetated sites occur where the water table is always above the substrate surface, either deeper than 2 m, or where secondary processes like energy are keeping vegetation from establishing.</div>
Unvegetated Ephemeral																
Unvegetated Ephemeral Aquatic Storm-water Ponds and Water Treatment																
Storm-water Ponds / Water Treatment										UAP-1	UAP-1 (B)	UAP-1 (G)	UAP-1 (S)	<div>- Site conditions vary but are always associated with a hardened surface</div>	<div>- If present, vascular vegetation cover is less than 25%</div> <div>- mostly a phytoplankton dominated aquatic system</div>	
Open Water																
Open Aquatic																
Anthropogenic Open Aquatic										AOO-1				AOO-1 (S)	<div>- Due to past disturbance or ongoing management, environmental conditions vary widely. Substrate is not likely to follow the rules in the moisture regime tables as disturbance will have caused the layers to mix</div>	<div>- If present, vascular vegetation cover is less than 25%</div> <div>- mostly a phytoplankton dominated aquatic system</div>