9. Baptism-Brule

HEALTHY WATERS REPORT CARD

OFFSHORE	NA	ISLANDS	A
NEARSHORE	C	COASTAL WETLANDS	B
EMBAYMENTS & INSHORE	C	COASTAL TERRESTRIAL	A+
TRIBUTARIES & WATERSHEDS	C	**OVERALL B**	

Report card denotes general condition/health of each biodiversity target in the region based on condition/stress indices. See introduction to the regional summaries.

A Very Good	*Ecologically desirable status; requires little intervention for maintenance*
B Good	*Within acceptable range of variation; may require some intervention for maintenance.*
C Fair	*Outside of the range of acceptable variation and requires management. If unchecked, the biodiversity target may be vulnerable to serious degradation.*
D Poor	*Allowing the biodiversity target to remain in this condition for an extended period will make restoration or preventing extirpation practically impossible.*
Unknown	*Insufficient information.*

Susie Island is the largest of 13 small, rocky islands jutting out of Lake Superior at the Pigeon River outlet. The island has been protected by The Nature Conservancy. Photo credit: The Nature Conservancy.

Summary/ Description

The Baptism-Brule region is located in the western portion of the Lake Superior basin, from the Ontario-Minnesota international boundary to just north of Silver Bay (near Illgen City), Minnesota. Including the nearshore waters associated with this regional unit, it is 3,912 km^2 in size. This hydrologic region is referred to as HUC 04010101 and is part of the larger Subregion 0401, Western Lake Superior. The region is located within the Northern Lakes and Forest ecoregion of Minnesota (USDA NRCS No date a), and is also referred to as the Lake Superior North Watershed by the Minnesota Pollution Control Agency (Minnesota PCA 2012a). Most of the land-base of the regional unit is in Cook County, with a smaller portion in Lake County (USDA NRCS No date a). The largest land ownership type in the watershed is federal ownership. State ownership is the second largest ownership type, followed by private. The remaining land is owned by tribal, private major, county or conservancy agencies (USDA NRCS No date a). Communities in the area include: Finland, Schroeder, Tofte, Lutsen, Grand Marais, Hovland (Minnesota PCA 2012a). The Grand Portage Band of Lake Superior Chippewa community is located at Grand Portage, and is one of the oldest Ojibwa settlements in Minnesota (Grand Portage No date). The Baptism-Brule regional unit is part of the territory ceded in the Treaty of 1854. The signatory tribes retain rights to hunt, fish, and gather within the regional unit (A. McCammon Soltis, pers. comm., January 5 2015). The Sawtooth Mountains are found along the shoreline (USDA NRCS No date a, No date b). The Baptism-Brule regional unit contains one tertiary (HUC 8) watershed, Baptism-Brule, and 11 quaternary (HUC 10) watersheds. The watersheds are almost completely forested. The coasts are dominated by exposed rocky shores and cliffs. Coastal wetlands are very rare in this region.

TABLE 9.1: Baptism-Brule BY THE NUMBERS

Land and Water Cover	***Region (km^2)***	***Region %***	***Lake Superior Total (km^2)***	***Notes***
Agriculture	0.53	0.01	1,441.07	
Developed	0.80	0.02	389.55	
Forest	3,857.75	88.24	107,747.13	
Associated Nearshore Waters	257.84	5.90	17,868.03	
Other	75.90	1.74	8,227.57	
Water (inland)	178.96	4.09	9,473.05	
Total Area	**4,371.78**	**100**	**145,146.40**	
Coastal Features	***Region***	***Region %***	***% of Lake Superior Total for Coastal Feature***	
Coastline (km)	215.54	NA	3.70	Based on SOLEC shoreline
Sand Beaches (km)	2.00	0.93	0.31*	*% of Lake Superior Total Sand Beaches
Coastal Wetlands (km^2)	12.55	3.80*	1.14**	*% of Regional Coastal Area ** % of Lake Superior Total Coastal Wetlands
Natural Cover in Coastal Zone	313.83	94.94*	5.08**	*% of Regional Coastal Area ** % of Lake Superior Total Natural Cover in Coastal Area
Number of Islands	46	NA	1.7	
Condition	***Region***	***Region %***	***% of Lake Superior Total***	
Population Density (persons/km^2)	1.26	NA		
Road Density (km/km^2)	0.33	NA		
Number of Dams and Barriers	816	NA	3.5	
Artificial Shoreline (km)	4.08	1.89	1.79	
Land Ownership & Protection	***Region (km^2)***	***Region %***	***Regional Area (km^2)***	
Private	151.03	3.67	4,113.94	Regional area based on landmass
Public/Crown	3,655.64	88.88	4,113.94	
Tribes/ First Nations	187.55	4.56	4,113.94	
Parks & Protected Areas (total)	152.91	3.72	4,113.94	
Parks & Protected Areas (coast)	62.91	19.03*	330.55**	*% of Regional Coastal Area **Regional Coastal Area (km^2)

Important Biodiversity Features

Nearshore and Inshore Waters

- Grand Portage Bay, Clark's Bay and Wauswaugoning Bay are noted as Lake Superior embayments which are important for Lake Sturgeon (Auer 2003). In the Baptism-Brule regional unit these embayments and the nearshore zone, which provides corridors for movement, are identified as critical management areas for Lake Sturgeon in the Lake Superior basin (Auer 2003). Pigeon Bay is also noted to be used by Lake Sturgeon, in fact it is the bay most used by Lake Sturgeon in Grand Portage waters (S. Moore, pers. comm., May 14 2013).

- Areas identified as important habitat for Lake Trout are found in areas along the coast, and areas identified as important habitat for Lake Whitefish are found near Grand Portage, at the northern end of the Baptism-Brule regional unit (Lake Superior Binational Program Habitat Committee 2006) (Figure 9.1).
- The Baptism-Brule regional unit has several areas identified as biologically important by the Lake Superior Binational Program Habitat Committee (2006). A number of Important Habitat Sites and Important Habitat Areas are located within the region and along the shoreline (Table 9.3, Figure 9.3).

Coastal Zone and Islands

- A few small State Important Bird Areas are found along the coast in the Baptism-Brule regional unit (National Audubon Society 2013, 2012). These sites are some of the nine locations along Lake Superior that make up the 125 acre North Shore Peregrine Falcon Eyries IBA. These nine cliff areas are geographically separate and under different ownerships, but combined represent 70% of the recorded natural nest sites for Peregrine Falcons in Minnesota (Minnesota DNR 2013b).
- Susie Island is a Minnesota Biological Survey Site of Statewide Biodiversity Significance. Susie Island is noted to be ecologically significant due to unique flora and the presence of arctic-alpine disjunct species. Nine rare plant species are known to occur on the island (Minnesota DNR 1984).
- Arctic disjunct plant species occur in several locations along the coast (B. Carlson, pers. comm., March 20 2013)

Tributaries and Watersheds

- Historically 21 tributaries in Lake Superior had Lake Sturgeon spawning runs. One of these historical spawning tributaries, the Pigeon River is on the shared boundary between the Arrow and Dog and Baptism-Brule regional units. The Pigeon River population status is extant, while the population trajectory is unknown (Golder Associates Ltd. 2011).
- A Lake Sturgeon Rehabilitation Plan for Lake Superior (Auer 2003) identifies the Pigeon River as one of the seventeen tributaries to Lake Superior in which there should be a focus on Lake Sturgeon rehabilitation.
- Despite impairment issues in some areas, many areas of the watershed are described as of exceptional water quality (Minnesota PCA 2012a).
- The Art Lake Hardwood Ridges area is a Minnesota Biological Survey Site of Outstanding Biodiversity Significance. It is noted as a large natural area (4,670 acres) which is unfragmented in nature. The site contains high-quality native plant communities, including communities ranked as S2 (Imperiled) and S3 (Vulnerable to Extirpation) by the Natural Heritage and Nongame Wildlife Research Program. Large patches of old-growth upland forests and lowland forests are found within this area, as are rare plants and a rare bird species (defined as rare by Minnesota statutes) (Minnesota DNR 2008).
- The Baptism-Brule watershed is highly forested; other land covers include open water, shrub or scrubland and wetlands (USDA NRCS No date a). Agriculture accounts for a very small portion of land use; much of the land in this region is not well-suited for agriculture (USDA NRCS No date a).

Figure 9.1: Baptism-Brule - Coastal and Watershed Features

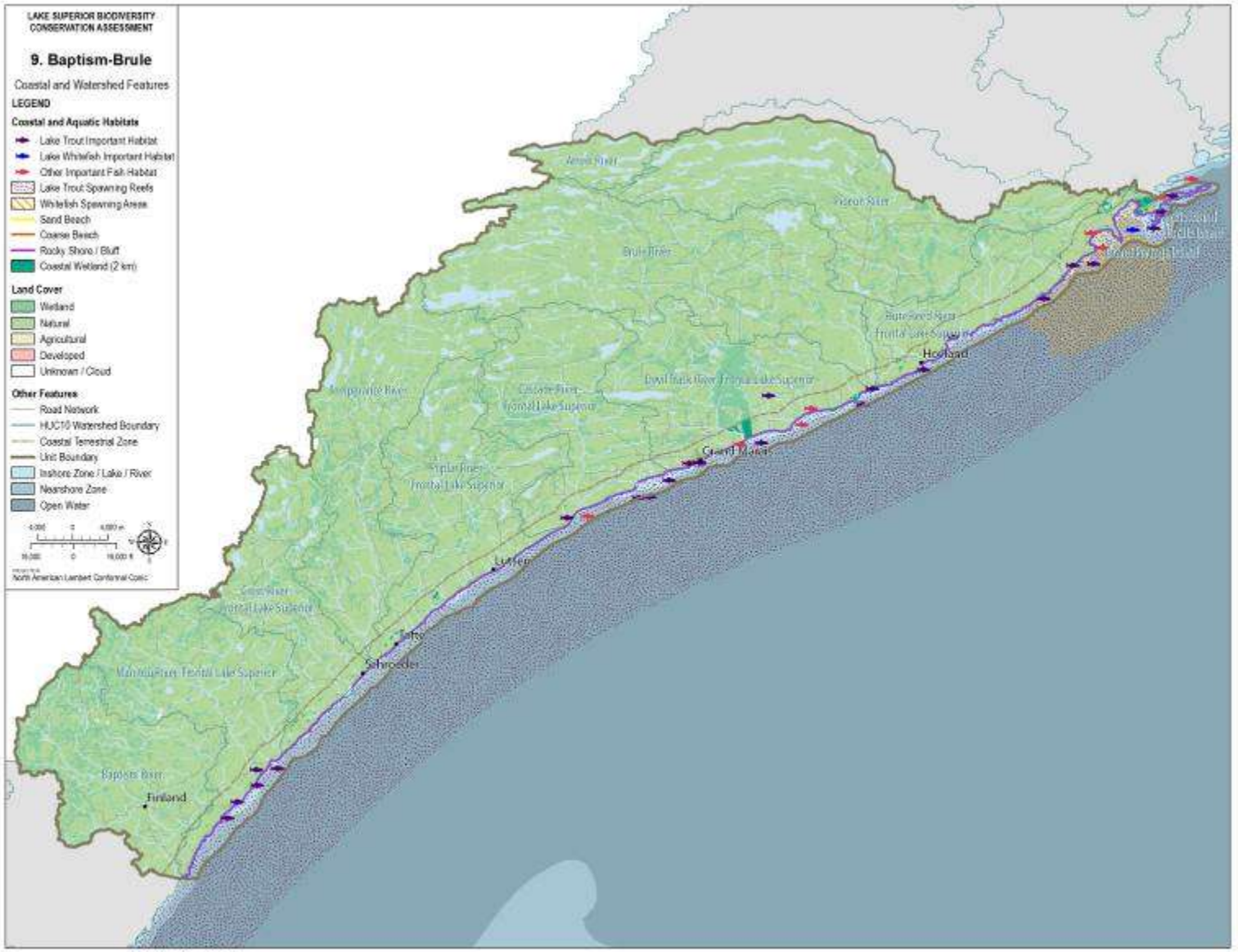


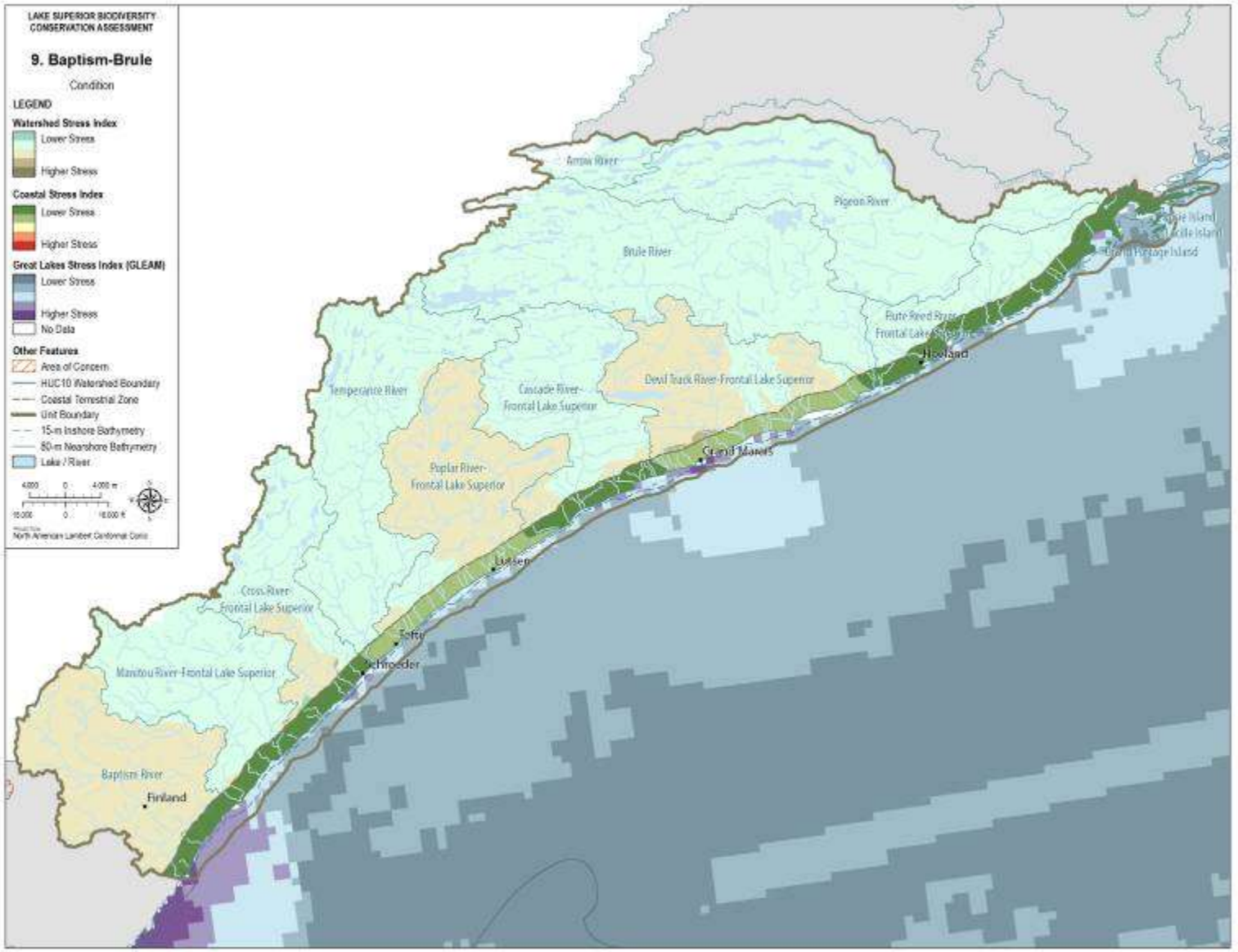
TABLE 9.2: Baptism-Brule CONDITION AND TRENDS

Target (Data Source)	**Condition**	**Trends**
Offshore[1]	NA	
Nearshore[1]	C (0.57)	
Embayments and Inshore[1,2]	C (0.57)	
Coastal Wetlands[2,3]	B (0.706)	
Islands[4]	A	
Coastal Terrestrial[3]	A+ (0.979)	Some local experts feel a grade of A may accurately reflect local conditions in the Coastal Terrestrial target. This is due to the combined effects of recent housing development fragmenting the forest, and the forest lacking much of its natural conifer component. Significant changes to forest cover and forest disturbance over the past 100 years have impacted the Coastal Terrestrial target (E. Perry, pers. comm., February 26 2013).
Tributaries and Watersheds[2]	C (0.57)	

A: Very Good	*Ecologically desirable status; requires little intervention for maintenance*
B: Good	*Within acceptable range of variation; may require some intervention for maintenance.*
C: Fair	*Outside of the range of acceptable variation and requires management. If unchecked, the biodiversity target may be vulnerable to serious degradation.*
D: Poor	*Allowing the biodiversity target to remain in this condition for an extended period will make restoration or preventing extirpation practically impossible.*
Unknown	*Insufficient information.*

1: Great Lakes Cumulative Stress (GLEAM 2012, Allan et al. 2013)
2: Watershed Stress Index (GLEI 2013)
3: Coastal Condition Index (developed for this report)
4 : Island Condition Score (Henson et al. 2010)

Figure 9.2: Baptism-Brule - Condition



Important Issues & Threats

- The Rapid Watershed Assessment completed by the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS No date a) identifies several watershed concerns in the Baptism-Brule region. These include erosion (sheet and rill, streambank, lakeshore and roadside), groundwater and surfacewater quality and quantity, and management of timberlands, shoreline and wetlands (USDA NRCS No date a). The transport of sediments and pollutants to surfacewater due to erosion and stormwater are also identified (USDA NRCS No date a).
- Development pressures are stated to be moderate in this region (USDA NRCS No date a), however, development along the Lake Superior shoreline is noted as significant (Minnesota PCA 2012a). Other areas of the Baptism-Brule region are noted to be facing increased growth and development pressures, including the along the shorelines of the lower reaches of the Poplar and Flute Reed rivers (Minnesota PCA 2012a). This development is noted to be a contributing factor to pollution problems (Minnesota PCA 2012a).
- Estimates indicate 22 farm operations are located in the watershed region; more than 80% of these farms are less than 180 acres in size (USDA NRCS No date a).
- Some streams and lakes in the Baptism-Brule region are classified as impaired due to identified impairments, such as mercury or PCB in fish tissue, mercury in the water column, or turbidity. In the affected waterbodies, these impairments lead to designated uses being affected (Minnesota PCA 2012a).
- The USGS lists a total of 14 records for Nonindigenous Aquatic Species in the Baptism-Brule region. Of these, 4 are classified as exotic, 9 as native, and 1 as native hybrid (USGS 2012a).
- An Emergency Prevention and Response Plan for Viral Hemorrhagic Septicemia has been developed for Isle Royale National Park, Pictured Rocks National Lakeshore, Apostle Islands National Lakeshore and the Grand Portage Band of the Lake Superior Chippewa Reservation (within which is the Grand Portage National Monument) (NPS 2013a).
- Forest fragmentation as a result of housing development is an emerging concern in Minnesota. The forest that is present lacks much of its natural conifer component (E. Perry, pers. comm., February 26 2013).

Conservation In Action

Parks & Protected Areas

- Temperance State Park
- Cascade State Park
- Judge CR Magney State Park
- Boundary Waters Canoe Area Wilderness (within Superior National Forest)
- Superior National Forest

Existing Programs & Projects

- Brook Trout restocking efforts in Grand Portage, Minnesota, using fertilized eggs or fry of the Nipigon-strain of Brook Trout have been successful. The stocked Brook Trout migrated to Lake Superior and as adults they returned to the streams where they were stocked and successfully reproduced (Newman et al. 2003). The success of this restocking effort may be due to a combination of factors, including the strain of Brook Trout used, the early life stage at which the Brook Trout were stocked, and the protection from overharvest provided by Grand Portage (Newman et al. 2003).

- There are a number of Minnesota Biological Survey (MBS) Sites delineated in the Baptism-Brule regional units within Minnesota, some of which have been ranked with Outstanding or High Biodiversity Significance, based on statewide ranking criteria. The Minnesota Department of Natural Resource's MBS systematically collects, interprets, and delivers data on the distribution and ecology of native plants, animals, native plant communities, and functional landscapes throughout the state. MBS conducts landscape assessments, field surveys and monitoring activities, and provides data and tools to guide conservation and management within *MBS Sites of Statewide Biodiversity Significance* (MBS Sites). Biodiversity information includes the location and biodiversity significance rank of MBS Sites, the location and status of rare species populations, the type and condition of native plant communities, and, for selected sites, *MBS Ecological Evaluation* reports (Minnesota DNR 2013e, B. Carlson, pers. comm., March 20 2013). The MBS Sites located within the Baptism-Brule regional unit are Art Lake Hardwood Ridges, Deronda Bay, George Crosby Manitou State Park & Caribou Falls State Wayside, Horseshow Bay Shore, Hovland lookout Tower, Hovland Woods, Hovland Woods SNA (Swamp River W), Icelandite Coastal Fen, Iona's Beach, Lake Agnes Northern Hardwoods, Lutsen Natural Area, Myhr Creek Ridge, Ninemile Lakes and Ridges, Susie Island and Thomsonite Beach (L. Gerdes, pers. comm., March 18 2013).
- The State of Minnesota specifies a policy goal of non-degradation for all waters, maintaining them in a natural and unpolluted state. There are three levels of protection for surface waters. The highest level of protection applies to Outstanding Resource Value Waters (ORVWs). Additionally, all surface waters in the Lake Superior basin are Outstanding International Resource Waters (OIRW) (MPCA 2012e).
- The Grand Portage Band of Lake Superior Chippewa uses the designation of Outstanding Tribal Water Resources (OTRWs) as part of an anti-degradation policy to maintain and protect high quality waters. All waters within the boundaries of the Grand Portage Reservation are OTWRs, assigned to one of two subcategories. Each subcategory has specific implementation procedures (Grand Portage Band of Lake Superior Chippewa 2006).
- The Natural Resources Conservation Service (NRCS) Performance Results System (PRS) provides support for reporting the development and delivery of conservation programs (USDA NRCS No date d). From 1999 through 2007 a total of 46,953 acres were planned for conservation use, through the Total Conservations Systems. During this same period, a total of 3,945 acres of the planned conservation systems were applied (USDA NRCS No date a). Some of the conservation practices implemented included tree and shrub establishment (amounting to 1,032 total acres), total wildlife habitat (977 total acres), total wetlands created, restored or enhanced (60 total acres) and erosion control total soil saved (amounting to 722 tons per year) (USDA NRCS No date a).
- A number of projects, plans and monitoring programs are underway in this region. The 10 year rotation for intensive watershed monitoring for Minnesota's major watersheds will take place in the Baptism-Brule region in 2013; further studies and plans may be developed depending on the results of the monitoring program (Minnesota PCA 2012a). Monitoring of the Flute Reed River is undertaken by a partnership including a citizen's organization, the Minnesota Pollution Control Agency and the county Soil and Water Conservation District (Minnesota PCA 2012a). Lake associations are also monitoring lakes and working to develop lake management plans (Minnesota PCA 2012a).
- The Manitou Collaborative is a partnership which includes the United States Forest Service, the Minnesota Forest Resources Council, The Nature Conservancy, the Minnesota Department of Natural Resources, Wolf Ridge Environmental Learning Center and Lake County. The partnership of

public and private landowners began in 2000, and collaboratively the partners manage 100,000 acres in northeastern Minnesota. One fifth of the Manitou Landscape area is classified as Outstanding for statewide biodiversity significance, and 200 miles of high quality streams are located within this area. Mutually agreed upon management objectives for the vegetation include mimicking the range of natural variability to restore diverse and multi-aged forests and promoting diverse forests of multiple growth stages, while supporting the local economy (The Manitou Collaborative No date, USDA Forest Service No date a). The Art Lake Hardwood Ridges Minnesota Biological Survey Site of Outstanding Biodiversity Significance is located within the Manitou Collaborative area of focus (Minnesota DNR 2008).

- The North Shore Forest Collaborative is a combined effort of local, state and federal groups, along with public and private groups and individuals. Concentrated on the ecosystems along the North Shore of Lake Superior, the Collaborative agencies work together to restore and maintain native trees and forest communities for a healthy forest environment (North Shore Forest Collaborative No date).
- The North Shore Stewardship Association works to promote the protection and restoration of the North Shore of Lake Superior (Sugarloaf: The North Shore Stewardship Association No date).
- Six Citizen-based Groups are noted to do work in the Baptism-Brule (U.S. EPA 2013b). Additional projects, plans, conservation districts, organizations and partners related to the Baptism-Brule regional unit are noted in the Rapid Watershed Assessment (USDA NRCS No date a).
- Minnesota Biological Survey (MBS) Sites of Biodiversity Significance ranked High and Outstanding (B. Carlson, pers. comm., March 20 2013)

TABLE 9.3: Baptism-Brule IMPORTANT HABITAT SITES AND AREAS

Code	*Site/ Area*	*Important Habitat Site/Area Name*	*Key Features*
MN-004	Site	Amenda Creek	Northern Hardwood Forest, Upland White Cedar Forest
MN-006	Site	Grand Marais Point	Arctic disjunct plant community, rare plant habitat, geologic features
MN-011	Site	Big Bay	Geologic Feature
MN-013	Area	Boundary Waters Canoe Area	Rare plant and animal habitat, large representative ecosystems, geologic features
MN-015	Area	Butterwort Cliffs SNA	Rock shore community, aspen-birch forest, rare plant habitat, colonial waterbird habitat
MN-017	Site	Cannonball Bay	Arctic disjunct plant community, rare plant habitat
MN-018	Site	Caribou Falls WMA	Anadromous fish habitat, deer concentration area
MN-019	Area	Cascade River State Park	Arctic disjunct plant community, rare plant habitat
MN-026	Site	Deronda Bay and Red Rock	Rare plant habitat, geologic feature
MN-028	Site	Devil Track Lake	Rare animal habitat
MN-031	Site	Five Mile Rock	Colonial waterbird nesting habitat, geologic feature
MN-034	Area	George H. Crosby Manitou State Park	Northern hardwood forest, upland white cedar forest, rare animal habitat, rare plant habitat, anadromous fish habitat
MN-035	Site	Good Harbor Bay	Arctic disjunct plant community, rare plant habitat, geologic feature
MN-037	Site	Grand Marais Fen	Poor fen, sedge subtype
MN-038	Site	Grand Portage 4	Rare plant community
MN-039	Area	Grand Portage State Park	Rare plant habitat
MN-040	Area	Hat Point Area	Representative forest ecosystems, coastal shore communities, important natural/cultural resource
MN-041	Site	Heartbreak Creek	Northern hardwood-conifer forest, yellow birch-white cedar subtype, upland white cedar forest
MN-042	Site	Hollow Rock	Geomorphic feature (sea arch)
MN-045	Site	Horseshoe Bay	Geomorphic feature (raised beach)
MN-046	Area	Hovland Woods SNA	Large old growth forest complex with bogs, swamps, lake in the landscape, rare plant and animal habitat
MN-050	Area	Judge C. R. Magney State Park	Old growth white pine forest, rare plant habitat, geomorphic features, anadromous fish habitat
MN-051	Site	Kadunce Creek	Rare plant community
MN-052	Site	Kennedy Creek	Rare animal habitat
MN-055	Site	Lake Agnes Hardwoods	Northern hardwood forest, rare plant habitat
MN-056	Area	Lake Superior Highlands	Extensive natural communities and high biodiversity, rare plant and animal habitat
MN-058	Site	LeVeaux WMA	Representative natural plant communities, rare animal habitat
MN-060	Site	Little Marais	Rare animal habitat, colonial waterbird nesting habitat
MN-062	Area	Lutsen SNA	Old growth Northern Hardwood forest and upland white cedar forest
MN-065	Site	Manitou River	Fish spawning habitat, rare plant habitat
MN-068	Site	Mineral Center Maple Ridge	Northern Hardwood forest, rare plant habitat
MN-071	Site	Moose Fence Cedars	Upland white cedar forest
MN-077	Site	Oberg Mountain Hardwoods	Northern hardwood forest, rare plant habitat
MN-078	Site	Onion River Hardwoods	Northern hardwood forest, rare plant habitat

Code	*Site/ Area*	*Important Habitat Site/Area Name*	*Key Features*
MN-079	Area	Paradise Beach	Coastal wetland, tamarack swamp, colonial waterbird nesting habitat, waterbird concentrations, geologic formations
MN-080	Site	Pearl Beach Hardwoods	Northern hardwood forest
MN-082	Site	Poplar River	Fish spawning habitat
MN-088	Site	Schroeder RNA	Northern hardwood forest, rare plant habitat
MN-090	Site	South Fowl Lake	Rare plant habitat
MN-091	Site	South Lutsen	Rare plant and animal habitat
MN-093	Area	Spring Beauty Hardwoods SNA	Old growth northern hardwood forest, rare plant habitat
MN-095	Area	Sugar Loaf Point SNA	Coastal wetland restoration project, rare plant habitat, geologic features
MN-097	Area	Susie Islands	Arctic-disjunct plant community, rare animal habitat
MN-098	Area	Swamp River Bog	Rare plant communities, old growth forest, rare plant habitat, rare animal habitat, waterbird concentrations
MN-099	Area	Temperance River State Park	Rare plant habitat, arctic disjunct plant populations, unusual geomorphic feature
MN-100	Area	Tettegouche State Park	Lake Superior pebble and bedrock beaches, exposed cliffs, Northern Hardwood-Conifer Forest, Northern Oak Forest, Upland White Cedar Forest
MN-102	Site	Tofte Town Park	Arctic and alpine disjunct plant habitat
MN-105	Site	Wolf Ridge	Rare animal habitat
MN-106	Site	Wringer Lake Hardwoods	Northern hardwood forest, rare plant habitat
MN-107	Site	Yellow Birch	Northern hardwood forest, rare plant habitat
MN-109	Site	Cross River State Park	Northern hardwoods forest, rare plant habitat
MN-110	Area	Devils Track Falls State Park	Rare plant habitat
MN-112	Area	Kadunce River State Park	Rare plant habitat
ON-155	Area	La Verendrye	Rare plant habitat, cliff communities, wild rice marshes

Figure 9.3: Baptism-Brule - Important Habitat Sites and Areas

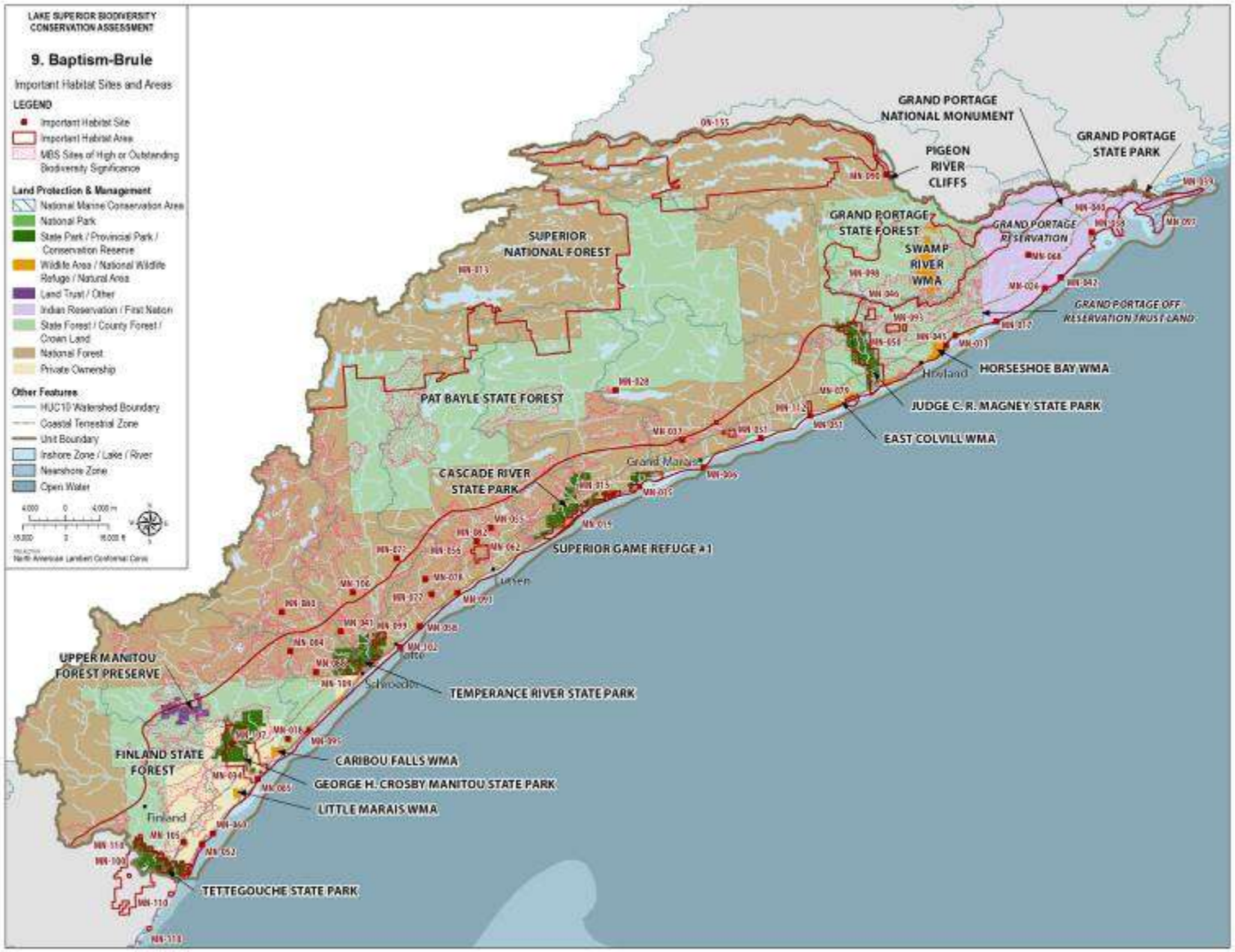


TABLE 9.4: Baptism-Brule LIST OF SPECIES AND COMMUNITIES OF CONSERVATION CONCERN

At least 179 species and communities of conservation concern have been documented in the regional unit. 148 of these have viability rankings which indicate the species or community is currently present, or was at the date of last sampling. The viability rankings of these species varies from A to E (A – Excellent predicted viability, B – Good predicted viability, C – Fair predicted viability, D – Probably not viable, E – Verified extant). 2 species and communities were once known to occur here, but have current conservation ranks of H (Historical). A further 29 species and communities of conservation concern are known to occur in this regional unit, but are currently not ranked for viability. [10]

Present Records (Viability Rankings of A to E)	
Scientific Name	**Common Name**
Accipiter gentilis	Northern Goshawk
Actaea pachypoda	White Baneberry
Adlumia fungosa	Climbing Fumitory
Adoxa moschatellina	Moschatel
Ahtiana aurescens	Eastern candlewax lichen
Allium schoenoprasum	Chives
Allocetraria oakesiana	Yellow ribbon lichen
Anaptychia crinalis	Hanging fringe lichen
Arctoparmelia centrifuga	Concentric Ring Lichen
Arethusa bulbosa	Dragon's-mouth
Arnica lonchophylla	Long-leaved Arnica
Artemisia campestris	Canadian Wormwood
Aspen - Birch Forest; Balsam Fir Subtype	Aspen - Birch Forest; Balsam Fir subtype
Aspen - Birch Forest; Hardwood Subtype	Aspen - Birch Forest, Hardwood Subtype
Asplenium trichomanes ssp. trichomanes	Maidenhair Spleenwort
Bistorta vivipara	Alpine Bistort
Boechera retrofracta	Holboell's Rock-cress
Botrychium lanceolatum ssp. angustisegmentum	Lanceleaf Grapefern
Botrychium lunaria	Common Moonwort
Botrychium matricariifolium	Matricary Grapefern
Botrychium michiganense	Michigan Moonwort
Botrychium minganense	Mingan Moonwort
Botrychium pallidum	Pale Moonwort
Botrychium rugulosum	St. Lawrence Grapefern
Botrychium simplex	Least Moonwort
Calamagrostis lacustris	Marsh Reedgrass
Calamagrostis purpurascens	Purple Reedgrass
Carex conoidea	Katahdin Sedge
Carex exilis	Coastal Sedge
Carex flava	Yellow Sedge
Carex gynandra	A Species of Sedge
Carex media	Intermediate Sedge
Carex michauxiana	Michaux's Sedge
Carex novae-angliae	New England Sedge

[10] Data included here were provided by the Division of Ecological and Water Resources, Minnesota Department of Natural Resources (DNR), and were current as of December 3 2014. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

Carex ormostachya	Necklace Spike Sedge
Carex pallescens	Pale Sedge
Carex praticola	Prairie Sedge
Carex rossii	Ross' Sedge
Carex supina ssp. spaniocarpa	Weak Arctic Sedge
Carex woodii	Wood's Sedge
Ceratophyllum echinatum	Spiny Hornwort
Claytonia caroliniana	Carolina Spring-beauty
Colonial Waterbird Nesting Area	Colonial Waterbird Nesting Site
Coregonus kiyi	Kiyi
Coregonus zenithicus	Shortjaw Cisco
Crataegus douglasii	Black Hawthorn
Cygnus buccinator	Trumpeter Swan
Cystopteris laurentiana	Laurentian Bladder Fern
Deschampsia flexuosa	Slender Hairgrass
Draba arabisans	Rock Whitlow-grass
Draba cana	Hoary Draba
Draba norvegica	Norwegian Whitlow-grass
Drosera anglica	English Sundew
Drosera linearis	Linear-leaved Sundew
Eleocharis nitida	Neat Spike-rush
Eleocharis quinqueflora	Few-flowered Spike-rush
Eleocharis robbinsii	Robbin's Spike-rush
Empetrum atropurpureum	Purple Crowberry
Erigeron acris var. kamtschaticus	Bitter Fleabane
Euphrasia hudsoniana var. ramosior	Hudson Bay Eyebright
Falco peregrinus	Peregrine Falcon
Fontinalis welchiana	
Frullania selwyniana	Selwyn's Ear-leaf Liverwort
Geocaulon lividum	Northern Comandra
Haliaeetus leucocephalus	Bald Eagle
Huperzia appalachiana	Appalachian Fir-clubmoss
Huperzia porophila	Rock Clubmoss
Hydroptila novicola	A Caddisfly
Juncus stygius var. americanus	Bog Rush
Lake Superior Rocky Shore Class	Lake Superior Rocky Shore
Lasmigona compressa	Creek Heelsplitter
Limnephilus rossi	A Caddisfly
Listera auriculata	Auricled Twayblade
Littorella americana	American Shore-plantain
Lobaria quercizans	Smooth lungwort
Lobaria scrobiculata	Textured lungwort
Lowland White Cedar Forest (North Shore) Type	Lowland White Cedar Forest (North Shore)
Luzula parviflora	Small-flowered Woodrush
Lycaeides idas nabokovi	Nabokov's Blue
Menegazzia terebrata	Port-hole Lichen
Microtus chrotorrhinus	Rock Vole
Moehringia macrophylla	Large-leaved Sandwort
Muhlenbergia uniflora	One Flowered Muhly
Myotis septentrionalis	Northern Myotis
Myriophyllum tenellum	Leafless Water Milfoil
Najas gracillima	Thread-like Naiad
Native Plant Community, Undetermined Class	Native Plant Community, Undetermined Class
Northern Poor Fen Class	Northern Poor Fen
Nymphaea leibergii	Small White Water-lily
Ophiogomphus anomalus	Extra-striped Snaketail

Osmorhiza berteroi	Chilean Sweet Cicely
Osmorhiza depauperata	Blunt-fruited Sweet Cicely
Oxytropis viscida	Sticky Locoweed
Packera indecora	Elegant Groundsel
Paper Birch - Sugar Maple Forest (North Shore) Type	Paper Birch - Sugar Maple Forest (North Shore)
Peltigera venosa	Fan lichen
Phacelia franklinii	Franklin's Phacelia
Phenacomys ungava	Eastern Heather Vole
Pinguicula vulgaris	Butterwort
Piptatherum canadense	Canada Mountain-Ricegrass
Platanthera clavellata	Club-spur Orchid
Polystichum braunii	Braun's Holly Fern
Potamogeton oakesianus	Oakes' Pondweed
Potamogeton vaseyi	Vasey's Pondweed
Prosartes trachycarpa	Wartyfruit Fairy Bells
Protopannaria pezizoides	Brown-gray Moss-shingle Lichen
Pseudocyphellaria crocata	Yellow specklebelly lichen
Pyrola minor	Small Shinleaf
Ramalina thrausta	Angel's Hair Lichen
Ranunculus lapponicus	Lapland Buttercup
Red Pine - White Pine Woodland (Canadian Shield) Type	Red Pine - White Pine Woodland (Canadian Shield)
Rhynchospora fusca	Sooty-colored Beak-rush
Rubus chamaemorus	Cloudberry
Sagina nodosa ssp. borealis	Knotty Pearlwort
Salix pellita	Satiny Willow
Saxifraga cernua	Nodding Saxifrage
Saxifraga paniculata	Encrusted Saxifrage
Schistostega pennata	Luminous Moss
Scirpus georgianus	Georgia Bulrush
Scirpus pedicellatus	Woolgrass
Selaginella selaginoides	Northern Spikemoss
Setophaga caerulescens	Black-throated Blue Warbler
Shepherdia canadensis	Canada Buffaloberry
Sorex fumeus	Smoky Shrew
Sparganium glomeratum	Clustered Bur-reed
Splachnum ampullaceum	A Species of Moss
Splachnum rubrum	Red Parasol Moss
Sticta fuliginosa	Peppered moon lichen
Subularia aquatica ssp. americana	Awlwort
Sugar Maple Forest (North Shore) Type	Sugar Maple Forest (North Shore)
Tayloria serrata	
Tofieldia pusilla	Small False Asphodel
Torreyochloa pallida	Torrey's Manna-grass
Torreyochloa pallida var. fernaldii	Pale Manna Grass
Trichocolea tomentella	A Species of Liverwort
Trisetum spicatum	Narrow False Oats
Upland White Cedar Forest Type	Upland White Cedar Forest
Usnea longissima	Methuselah's Beard Lichen
Utricularia resupinata	Lavendar Bladderwort
Vaccinium uliginosum	Alpine Bilberry
Waldsteinia fragarioides var. fragarioides	Barren Strawberry
White Cedar - Yellow Birch Forest Type	White Cedar - Yellow Birch Forest
White Pine - Red Pine Forest Type	White Pine - Red Pine Forest
Woodsia alpina	Alpine Woodsia
Woodsia glabella	Smooth Woodsia
Woodsia oregana ssp. cathcartiana	Oregon Woodsia

Woodsia scopulina ssp. laurentiana	Rocky Mountain Woodsia
Xyris montana	Montane Yellow-eyed Grass
Historical Records	
Scientific Name	**Common Name**
Agrostis scabra	Rough Bentgrass
Empetrum nigrum	Black Crowberry
Unranked Records	
Scientific Name	**Common Name**
Acipenser fulvescens	Lake Sturgeon
Aegolius funereus	Boreal Owl
Bidens discoidea	Bur-marigold
Black Spruce Bog Type	Black Spruce Bog
Botaurus lentiginosus	American Bittern
Buteo lineatus	Red-shouldered Hawk
Carex xerantica	Dry Sedge
Castilleja septentrionalis	Northern Paintbrush
Coccocarpia palmicola	Salted shell lichen
Coturnicops noveboracensis	Yellow Rail
Ice erosion (quaternary)	Ice Erosion (Quaternary)
Igneous composition (middle proterozoic)	Igneous Composition (Middle Proterozoic)
Igneous intrusion (middle proterozoic)	Igneous Intrusion (Middle Proterozoic)
Igneous unit or sequence (middle proterozoic)	Igneous Unit or Sequence (Middle Proterozoic)
Juniperus horizontalis	Creeping Juniper
Lake erosion (quaternary)	Lake Erosion (Quaternary)
Listera convallarioides	Broad-lipped Twayblade
Mineral	Mineral
Mixed unit or sequence (middle proterozoic)	Mixed Unit or Sequence (Middle Proterozoic)
Northern Rich Tamarack Swamp (Western Basin) Class	Northern Rich Tamarack Swamp (Western Basin)
Parmelia stictica	A Species of Lichen
Red Oak - Sugar Maple - Basswood - (Bluebead Lily) Forest Type	Red Oak - Sugar Maple - Basswood - (Bluebead Lily) Forest
Stream erosion (proterozoic, phanerozoic)	Stream Erosion (Proterozoic, Phanerozoic)
Stream erosion (quaternary)	Stream Erosion (Quaternary)
Strix nebulosa	Great Gray Owl
Trichophorum clintonii	Clinton's Bulrush
Umbilicaria torrefacta	Punctured rock tripe lichen
Utricularia gibba	Humped Bladderwort
Vitis riparia	Dune Grape