

## APPENDICES

### APPENDIX A: Environmental Assessment

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#### FINDING OF NO SIGNIFICANT IMPACT

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##### 1.0 NAME OF ACTION

Environmental Assessment (EA) for the proposed implementation of a Forest Management Plan (FMP) for the Bay Mills Indian Community (BMIC), Michigan.

##### 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

An EA was prepared to evaluate the potential environmental effects of the full implementation of the FMP.

###### **Proposed Action**

The FMP establishes management standards and guidelines for the BMIC's forestlands. The FMP has been developed based upon a resource-specific management policy. The **Proposed Action** adopts the proposed FMP as drafted. This FMP promotes the stewardship of forest resources.

###### **No-Action Alternative**

Because there is no current FMP, forest management at the BMIC has reverted to Custodial Management. By Bureau of Indian Affairs (BIA) Policy, only six actions are allowed for agencies operating without a current approved FMP. These actions are:

- Preparation of a FMP (25 CFR 163.11);
- Emergency sale of timber on allotted lands held in trust (25 CFR 163.14(b));
- Free use cutting without permit (25 CFR 163.27);
- Fire management measures (25 CFR 163.28(a), (b), and (c));
- Trespass protection and prosecution (25 CFR 163.29); and
- Insect and disease control (25 CFR 163.31(b)).

Custodial Management is the **No-Action Alternative** for this EA.

##### 3.0 ENVIRONMENTAL EFFECTS

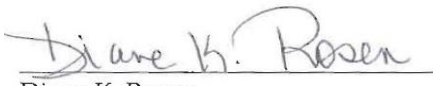
In general, no significant effects were identified during the evaluation of the Proposed Action. The following resources and infrastructure requirements were identified and evaluated:

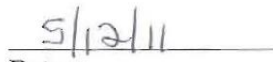
- Climate - no effects
- Land Use - no effects
- Topography - beneficial effects due to restoration of trees

- Soils - short-term effects during thinning or harvesting activities
- Vegetation - positive effects due to restoration activities and minor effects due to future minor timber harvesting for firewood
- Wildlife - positive effects to wildlife due to the reforestation, making more trees available for habitat
- Threatened/endangered species - no effects; consultation with U.S. Fish and Wildlife Service is recommended when restoration efforts are planned to ensure no species or habitats are disturbed or destroyed
- Floodplains - potential minor effects to floodplains when restoration of trees is conducted
- Wetlands - potential effects to wetlands during restoration of trees within wetlands; consultation with Corps of Engineers recommended to avoid disturbance and/or destruction of wetlands
- Water Resources - long-term, beneficial effect due to restoration activities
- Air Quality - potential effects during planting and harvesting
- Cultural Resources - potential effects due to future timber harvesting and restoration of trees activities; consultation with the Bay Mills Department of Conservation is recommended when these activities are planned
- Socioeconomics and Environmental Justice - favorable effect to the local economy at the BMIC
- Visual and Aesthetics - Potential effects during restoration activities
- Recreation - no effects

#### 4.0 CONCLUSION

Based on the findings of the EA, no significant effect is anticipated from implementation of the FMP. A Finding of No Significant Impact is warranted and an Environmental Impact Statement is not required for this action.

  
 Diane K. Rosen  
 Regional Director  
 BIA-Midwest Regional Office

  
 Date

## APPENDIX B: Definitions

Allowable Annual Cut (AAC) - The AAC is the administrative determination of the annual harvest level derived from the Indicated Annual Cut. AAC is the assigned annual harvest level allowed during a planning period.

Class I Watercourse - Domestic supply streams and springs, and all watercourses where fish are always or seasonally present onsite including watercourses containing habitat to sustain fish migration and spawning. Generally, these are perennial watercourses where fish are at least seasonally present. Watercourse protection zone widths vary by side slope from 75' at 0-30%, 100' on slopes of 30%-50% and 150' for 50% side slopes or more.

Class II Watercourse - A watercourse where fish are always or seasonally present offsite within 1,000 feet downstream and/or, aquatic habitat for non-fish species. Generally, these are intermittent watercourses where there is flow only into the early summer and where there is aquatic habitat. Watercourse protection zone widths vary by side slope from 50' on 0-30% side slopes, 75' on slopes of 30%-50% and 100' on 50% or steeper slopes.

Class III Watercourse - A watercourse where no aquatic life is present, and/or the watercourse shows evidence of being able to transport sediment to Class I or II watercourses after normal high water flow conditions. The equipment exclusion zone width shall be 30' or more on slopes < 30% and 50' or more on slopes > 30% side slope.

Commercial Forest Land - Commercial forest land means forest land that is producing or capable of producing crops of marketable forest products and is administratively available for intensive management and sustained production.

Forest land - Forest or forest land means an ecosystem at least one acre in size, including timber land and woodland, which: Is characterized by a more or less dense and extensive tree cover; contains, or once contained, at least ten percent crown cover, and is not developed or planned for exclusive non-forest resource use.

Indicated Allowable Cut (IAC). The IAC is the scientific calculation of the periodic (annual or other period) harvest rate that over the long term ensures forest sustainability.

Non-Commercial Forest Land – Non-commercial forest land means forest land that is available for extensive management, but is incapable of producing sustainable forest products within the general rotation period. Such land may be economically harvested, but the site quality does not warrant significant investment to enhance future crops.

Non-Forest Land. Land that does not contain trees or land that currently does not have ten percent tree cover.

Productive Forest Land - Productive forest land means forest land producing or capable of producing marketable forest products that is unavailable for harvest because of administrative restrictions or because access is not practical.

Timberland - Timberland means forest lands stocked, or capable of being stocked, with tree species that are regionally utilized for lumber, pulpwood, poles or veneer products.

Unproductive Forest Land - Unproductive forest land means forest land that is not producing or capable of producing marketable forest products and is also unavailable for harvest because of administrative restrictions or because access is not practical.

Woodland - Woodland means forest land not included within the timberland classification, stocked, or capable of being stocked, with tree species of such form and size to produce forest products that are generally marketable within the region for products other than lumber, pulpwood or veneer.

## APPENDIX C: 1990s Stand Exams

### Major Forest Types

Major forest types at the BMIC are characteristic of those found in the Eastern Upper Peninsula of Michigan and include aspen, hardwoods, and conifers (Table 2.4).

**Table 2.4 Acres of Forest Type at the Bay Mills Indian Community (Trust Acres)**

Forest Type	Trust Acres at Time of Survey
Aspen	467
Upland Hardwood	305
Lowland Hardwood	259
Upland Conifer	68
Lowland Conifer	218
Non-Forest	2,073
<b>TOTAL</b>	<b>3,390</b>

Source: BMIC Forest Inventory Analysis Report (1997)

### Forest Condition

During the 1992 stand examination, each stand was classed in one of eight condition classes: (1) non-stocked, (2) high risk, (3) overstocked, (4) mature, (5) sparse, (6) low quality, (7) good, and (8) regenerating. None of the stands at the BMIC were classified as non-stocked, overstocked, low quality, or regenerating. Table 2.5 summarizes the condition data by forest type for each compartment.

**Table 2.5 Percentages of Area of Each Forest Type by Stand Conditions at the Bay Mills Indian Community**

Forest Type	Acres	% High Risk	% Mature	% Sparse	% Good
<b>Compartment 401 (main campus near Brimley, MI)</b>					
Northern Hardwoods	6 ac	--	--	--	100
Swamp Hardwoods	133ac	--	28	27	45
Aspen	143ac	10	6	85	--
Aspen/ Northern Hardwoods	151ac	--	--	--	100
Fir/Spruce	52ac	--	17	83	--
Swamp Conifer	131ac	--	92	--	8
Cedar	72ac	--	--	22	78
<b>Compartment 402 (Sugar Island)</b>					
Northern Hardwoods	128ac	--	16	--	84
Swamp Hardwoods	126ac	--	--	8	92
Aspen	118ac	86	--	14	--
Aspen/ Northern Hardwoods	55ac	--	--	--	100
Black Spruce	15ac	--	--	100	--

Source: BMIC Forest Inventory Analysis Report (1997)

Table 2.6 details the inventoried stands and provides the primary type and site index species present at each of the stands.

Table 2.6 Inventoried Stands at the Bay Mills Indian Community

Compt.	Stand	Acres	Forest Class	Primary Type	Origin	Site Index Species
<b>Compartment 401 (main campus near Brimley, MI)</b>						
401	1	9	Commercial	Swamp Hardwoods	-	Yellow Birch
401	2	6	Commercial	Northern Hardwoods	-	Paper Birch
401	3	86	Commercial	Trembling Aspen	1928	Quaking Aspen
401	4	9	Commercial	Upland Fir- Spruce	1932	Big-tooth Aspen
401	5	18	Commercial	Upland Fir- Spruce	1935	White Spruce
401	6	26	Commercial	Swamp Conifers	1942	Northern White Cedar
401	7	70	Commercial	Swamp Conifers	1955	Northern White Cedar
401	8	25	Commercial	Upland Fir- Spruce	1923	White Spruce
401	9	16	Commercial	White Cedar	1935	Northern White Cedar
401	10	14	Commercial	Swamp Conifers	1942	Northern White Cedar
401	11	11	Commercial	Swamp Conifers	1942	Northern White Cedar
401	12	6	Commercial	Lowland Brush	1952	Northern White Cedar
401	13	10	Commercial	Lowland Brush	-	Balsam Fir
401	14	56	Commercial	White Cedar	1930	Paper Birch
401	15	10	Commercial	Swamp Conifers	1927	Black Spruce
401	16	40	Commercial	Swamp Hardwoods	-	Northern White Cedar
401	17	37	Commercial	Swamp Hardwoods	1930	Quaking Aspen
401	18	9	Commercial	Northern Hardwoods	-	-
401	19	16	Commercial	Hemlock-	-	-
401	20	98	Commercial	Northern Hardwoods	-	-
401	21	9	Commercial	Swamp Hardwoods	1937	White Ash
401	22	35	Commercial	Trembling Aspen	1927	Quaking Aspen
401	23	11	Commercial	Swamp Hardwoods	1941	American Holly
401	24	11	Commercial	Swamp Hardwoods	1907	Bigtooth Aspen
401	25	151	Commercial	Aspen- Northern Hardwoods	-	Quaking Aspen
401	26	14	Commercial	Trembling Aspen	1927	Quaking Aspen
401	27	16	Commercial	Swamp Hardwoods	1905	Balsam Popular
401	28	64	Commercial	Northern Hardwoods	1925	White Ash
401	29	8	Commercial	Trembling Aspen	1932	Quaking Aspen
401	401	180	Non-Forest	Housing	-	-
401	402	4	Non-Forest	Housing	-	-
401	403	89	Non-Forest	Housing	-	-
401	501	9	Non- Commercial	Minor Lake	-	-
401	502	6	Non- Commercial	Marsh/ Muskeg	-	-
401	503	27	Non-Commercial	Lowland Brush	-	-
401	504	16	Non-Commercial	Lowland Brush	-	-
401	505	24	Non-Commercial	Lowland Brush	-	-

401	506	18	Non- Commercial	Minor Lake	-	-
401	507	74	Non- Commercial	Lowland Brush	-	-
401	508	9	Non-Commercial	Marsh/	-	-
401	509	6	Non- Commercial	Lowland Brush	-	-
401	510	8	Non- Commercial	Marsh/ Muskeg	-	-
401	511	14	Non- Commercial	Minor Lake	-	-
401	512	6	Non- Commercial	Lowland Brush	-	-
<b>Compartment 402 (Sugar Island)</b>						
402	1	20	Commercial	Northern Hardwoods	1937	Red Maple
402	2	56	Commercial	Northern Hardwoods	-	-
402	3	80	Commercial	Swamp Hardwoods	-	Red Maple
402	4	55	Commercial	Aspen- Northern Hardwoods	1927	Quaking Aspen
402	5	11	Commercial	Trembling Aspen	1927	Quaking Aspen
402	6	86	Commercial	Trembling Aspen	1927	Quaking Aspen
402	7	16	Commercial	Trembling Aspen	1927	Quaking Aspen
402	8	4	Commercial	Swamp Hardwoods	1927	Red Maple
402	9	6	Commercial	Swamp Hardwoods	1925	Balsam Fir
402	10	5	Commercial	Trembling Aspen	1929	Quaking Aspen
402	11	32	Commercial	Northern Hardwoods	-	-
402	12	20	Commercial	Northern Hardwoods	-	-
402	13	36	Commercial	Swamp Hardwoods	-	Red Maple
402	14	15	Commercial	Black Spruce	1917	Black Spruce
402	401	33	Non-Forest	Housing	-	-
402	402	8	Non-Forest	Housing	-	-
402	501	14	Non- Commercial	Marsh/ Muskeg	-	-
402	502	3	Non- Commercial	Marsh/ Muskeg	-	-
402	503	44	Non- Commercial	Marsh/ Muskeg	-	-
402	504	21	Non- Commercial	Marsh/ Muskeg	-	-

Source: Oplnv Database

## APPENDIX D: 2017 Sugar Island Plant List

Plant Species List for Compartment 402 (Sugar Island), Stands 1-14 and 501, 503, 504

Background: This plant list was compiled by Biological Services Department staff during the summer of 2017. The botanical survey was conducted with stratified random, one meter quadrats. The objectives of the survey were to document plant species diversity in the survey area, locate any sensitive plant species that may be present, evaluate habitat suitability for sensitive plants, monitor the plant community over time as the ash canopy dies from EAB, identify invasive plant infestation and treatment needs, and describe the plant community in general.

Plant Species List: Scientific names and plant families follow the Michigan Flora project at University of Michigan Herbarium (<http://www.michiganflora.net/home.aspx>). Common names listed here reflect information in the Michigan Flora, USDA PLANTS database, and local knowledge.

Table D. Sugar Island Plant List 2017

Common name	Scientific name	Plant Family	Lifeform
Balsam Fir	<i>Abies balsamea</i>	PINNICEA	Tree
Striped Maple	<i>Acer pensylvanicum</i>	SAPINDACEAE	Tree
Red Maple	<i>Acer rubrum</i>	SAPINDACEAE	Tree
Sugar Maple	<i>Acer saccharum</i>	SAPINDACEAE	Tree
White Baneberry	<i>Actaea pachypoda</i>	RANUNCULACEAE	Forb/herb
Red Baneberry	<i>Actaea rubra</i>	RANUNCULACEAE	Forb/herb
Lady Fern	<i>Athyrium filix-femina</i>	ATHYRIACEAE	Fern
Bugleweed	<i>Ajuga sp.</i>	LAMIACEAE	Forb/herb
Tag Alder	<i>Alnus incana</i>	BETULACEAE	Tree
Serviceberry	<i>Amelanchier sp.</i>	ROSACEAE	Shrub
Canada Anemone	<i>Anemone canadensis</i>	RANUNCULACEAE	Forb/herb
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	ARALIACEAE	Forb/herb
Common Burdock	<i>Arctium minus</i>	ASTERACEAE	Forb/herb
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	ARACEAE	Forb/herb
Swamp Milkweed	<i>Asclepias incarnata</i>	APOCYNACEAE	Forb/herb
Yellow Birch	<i>Betula alleghaniensis</i>	BETULACEAE	Tree
Paper Birch	<i>Betula papyrifera</i>	BETULACEAE	Tree
Blue-Joint Grass	<i>Calamagrostis canadensis</i>	POACEAE	Grass
Marsh Marigold	<i>Caltha palustris</i>	RANUNCULACEAE	Forb/herb
Sedges	<i>Carex sp.</i>	CYPERACEAE	Grass
Turtle Head	<i>Chelone sp.</i>	PLANTAGINACEAE	Forb/herb
Small Enchanter's Nightshade	<i>Circaea alpina</i>	ONAGRACEAE	Forb/herb
Virgins Bower	<i>Clematis virginiana</i>	RANUNCULACEAE	Forb/herb
Bluebead Lily	<i>Clintonia borealis</i>	CONVALLARIACEAE	Forb/herb
Goldthread	<i>Coptis trifolia</i>	RANUNCULACEAE	Forb/herb
Bunchberry	<i>Cornus canadensis</i>	CORNACEAE	Forb/herb
Red-Osier Dogwood	<i>Cornus sericea</i>	CORNACEAE	Tree
Beaked Hazelnut	<i>Corylus cornuta</i>	BETULACEAE	Shrub
Bush Honeysuckle	<i>Diervilla lonicera</i>	CAPRIFOLIACEAE	Forb/herb
Flat-Topped White Aster	<i>Doellingeria umbellata</i>	ASTERACEAE	Forb/herb
Spinulose Wood Fern	<i>Dryopteris carthusiana</i>	DRYOPTERIDACEAE	Fern

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Horsetail	<i>Equisetum sp.</i>	EQUISETACEAE	Forb/herb
Boneset	<i>Eupatorium perfoliatum</i>	ASTERACEAE	Forb/herb
Forked Aster	<i>Eurybia furcata</i>	ASTERACEAE	Forb/herb
Joe Pye Weed	<i>Eutrochium purpureum</i>	ASTERACEAE	Forb/herb
Black Ash	<i>Fraxinus nigra</i>	OLEACEAE	Tree
Green Ash	<i>Fraxinus pennsylvanica</i>	OLEACEAE	Tree
Bedstraw	<i>Galium sp.</i>	RUBIACEAE	Forb/herb
Wild Geranium	<i>Geranium maculatum</i>	GERANIACEAE	Forb/herb
Manna Grass	<i>Glyceria sp.</i>	POACEAE	Grass
Cow Parsnip	<i>Heracleum lanatum</i>	APIACEAE	Forb/herb
Hawkweed	<i>Hieracium sp.</i>	ASTERACEAE	Forb/herb
Mountain Holly	<i>Ilex mucronata</i>	AQUIFOLIACEAE	Shrub
Winterberry	<i>Ilex verticillata</i>	AQUIFOLIACEAE	Shrub
Jewelweed	<i>Impatiens capensis</i>	BALSAMINIACEAE	Forb/herb
Blue Flag Iris	<i>Iris versicolor</i>	IRIDACEAE	Forb/herb
Tamarack	<i>Larix laricina</i>	PINACEAE	Tree
Honeysuckle	<i>Lonicera sp.</i>	CAPRIFOLIACEAE	Shrub
Birdsfoot Trefoil	<i>Lotus corniculatus</i>	FABACEAE	Forb/herb
Clubmoss	<i>Lycopodium sp.</i>	LYCOPIACEAE	Forb/herb
Northern bulge weed	<i>Lycopus uniflorus</i>	LAMIACEAE	Forb/herb
Canada Mayflower	<i>Maianthemum canadense</i>	CONVALLARIACEAE	Forb/herb
False Solomon-Seal	<i>Maianthemum sp.</i>	ASPARAGACEAE	Forb/herb
Wild Mint	<i>Mentha canadensis</i>	LAMIACEAE	Forb/herb
Partridgeberry	<i>Mitchella repens</i>	RUBIACEAE	Shrub
Indian Pipe	<i>Monotropa uniflora</i>	ERICACEAE	Forb/herb
Sensitive Fern	<i>Onoclea sensibilis</i>	ONOCLEACEAE	Fern
Ironwood	<i>Ostrya virginiana</i>	BETULACEAE	Tree
Black Spruce	<i>Picea mariana</i>	PINACEAE	Tree
White Pine	<i>Pinus strobus</i>	PINNICEA	Tree
Solomons Seal	<i>Polygonatum pubescens</i>	CONVALLARIACEAE	Forb/herb
Quaking Aspen	<i>Populus tremuloides</i>	SALICACEAE	Tree
Black Cherry	<i>Prunus serotina</i>	ROSACEAE	Tree
Prunus	<i>Prunus sp.</i>	ROSACEAE	Tree
Bracken Fern	<i>Pteridium aquilinum</i>	DENNSTAEDTIACEAE	Fern
Common Shinleaf	<i>Pyrola elliptica</i>	PYROLACEAE	Forb/herb
Round Leaved Pyrola	<i>Pyrola rotundifolia</i>	ERICACEAE	Forb/herb
Pyrolas	<i>Pyrola sp.</i>	PYROLOIDEAE	Forb/herb
Oak	<i>Quercus sp.</i>	FAGACEAE	Tree
Swamp Buttercup	<i>Ranunculus septentrionalis</i>	RANUNCULACEAE	Forb/herb
Prickly Gooseberry	<i>Ribes cynosbati</i>	GROSSULARIACEAE	Forb/herb
Raspberries	<i>Rubus sp.</i>	ROSACEAE	Shrub
Willows	<i>Salix sp.</i>	SALICACEAE	Tree
Mad Dog Skullcap	<i>Scutellaria lateriflora</i>	LAMIACEAE	Forb/herb
Skullcap	<i>Scutellaria sp.</i>	LAMIACEAE	Forb/herb
Goldenrod	<i>Solidago sp.</i>	ASTERACEAE	Forb/herb
Mountain Ash	<i>Sorbus sp.</i>	ROSACEAE	Tree

Swamp Aster	<i>Symphoricarpon puniceum</i>	ASTERACEAE	Forb/herb
Dandelion	<i>Taraxacum sp.</i>	ASTERACEAE	Forb/herb
Early Meadow Rue	<i>Thalictrum dioicum</i>	RANUNCULACEAE	Forb/herb
Northern White-Cedar	<i>Thuja occidentalis</i>	CUPRESSACEAE	Tree
Starflower	<i>Trientalis borealis</i>	MYRSINACEAE	Forb/herb
Common Trillium	<i>Trillium grandiflorum</i>	MELANTHIACEAE	Forb/herb
Eastern Hemlock	<i>Tsuga canadensis</i>	PINACEAE	Tree
Blueberry	<i>Vaccinium sp.</i>	ERICACEAE	Shrub
Maple-Leaved Viburnum	<i>Viburnum acerifolium</i>	ADOXACEAE	Forb/herb

## APPENDIX E: 2019 Cedar Stands Plant List

### Plant Species List for Compartment 100-200

Background: This plant list was compiled by Robin Clark and Michigan Tech University during the summer of 2019. The botanical survey was conducted with stratified random, plots within predominantly cedar stands. The objectives of the survey were to document plant species diversity in the survey area and describe the plant community in general within those cedar stands.

Plant Species List: Scientific names and plant families follow the Michigan Flora project at University of Michigan Herbarium (<http://www.michiganflora.net/home.aspx>). Common names listed here reflect information in the Michigan Flora, USDA PLANTS database, and local knowledge.

Table E. Associated Plants of Bay Mills Cedar Stands 2019

Common Name	Scientific Name	Family	Lifeform
Lady Fern	<i>Athyrium filix-femina</i>	ATHYRIACEAE	Fern
Wood Fern	<i>Dryopteris sp</i>	DRYOPTERIDACEAE	Fern
Horsetail	<i>Equisetum sp</i>	EQUISETACEAE	Fern
Mosses	<i>Lycopodium sp</i>	LYCOPODIACEAE	Fern
Sensitive Fern	<i>Onoclea sensibilis</i>	ONOCLEACEAE	Fern
Interrupted Fern	<i>Osmunda claytoniana</i>	OSMUNDACEAE	Fern
Bracken Fern	<i>Pteridium aquilinum</i>	DENNSTAEDTIACEAE	Fern
Wood Anemone	<i>Anemone quinquefolia</i>	RANUNCULACEAE	Forb
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	ARALIACEAE	Forb
Marsh Marigold	<i>Caltha palustris</i>	RANUNCULACEAE	Forb
Blue Cohosh	<i>Caulophyllum thalictroides</i>	BERBERIDACEAE	Forb
Bluebead Lily	<i>Clintonia borealis</i>	CONVALLARIACEAE	Forb
Gold Thread	<i>Coptis trifolia</i>	RANUNCULACEAE	Forb
Bunchberry	<i>Cornus canadensis</i>	CORNACEAE	Forb
Bedstraw	<i>Galium sp</i>	RUBIACEAE	Forb
Canada Mayflower	<i>Maianthemum canadense</i>	CONVALLARIACEAE	Forb
Naked Miterwort	<i>Mitella nuda</i>	SAXIFRAGACEAE	Forb
Wood Sorrel	<i>Oxalis sp</i>	OXALIDACEAE	Forb
Solomon's Seal	<i>Polygonatum biflorum</i>	CONVALLARIACEAE	Forb
Goldenrod	<i>Solidago sp</i>	ASTERACEAE	Forb
Star Flower	<i>Trientalis borealis</i>	MYRSINACEAE	Forb
Cattails	<i>Typha sp</i>	TYPHACEAE	Forb
Grasses	<i>grasses and sedges</i>		Grass/Sedge
Red Osier Dogwood	<i>Cornus rugosa</i>	CORNACEAE	Shrub
Honeysuckle	<i>Dievilla sp</i>	DIERVILLACEAE	Shrub
Creeping Snowberry	<i>Gaultheria hispida</i>	ERICACEAE	Shrub
Wintergreen	<i>Gaultheria procumbens</i>	ERICACEAE	Shrub
Labrador Tea	<i>Rhododendron groenlandicum</i>	ERICACEAE	Shrub
Red Swamp Curreant	<i>Ribes triste</i>	GROSSULARIACEAE	Shrub
Rubus	<i>Rubus sp</i>	ROSACEAE	Shrub
Sphagnum	<i>Sphagnum sp</i>	SPHAGNACEAE	Moss

## APPENDIX F: Detailed Soil Types of Bay Mills Trust Lands

Information is derived from the USDA Web Soil Survey

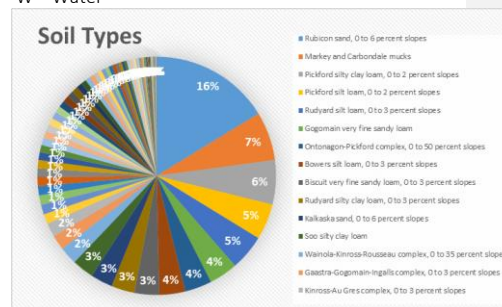
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

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- 10B—Ontonagon silt loam, 2 to 6 percent slopes
- 10D—Negwegon silt loam, 6 to 15 percent slopes
- 10F—Ontonagon silt loam, 25 to 50 percent slopes
- 11A—Rudyard silty clay loam, 0 to 3 percent slopes
- 12—Pickford silty clay loam, 0 to 2 percent slopes
- 13B—Alcona loamy very fine sand, 0 to 6 percent slopes
- 13D—Alcona loamy very fine sand, 6 to 15 percent slopes
- 13F—Alcona loamy very fine sand, 25 to 50 percent slopes
- 14A—Gaastra silt loam, 0 to 3 percent slopes
- 15B—Rousseau fine sand, dark subsoil, 0 to 6 percent slopes
- 15D—Rousseau fine sand, dark subsoil, 6 to 15 percent slopes
- 15E—Rousseau fine sand, dark subsoil, 15 to 35 percent slopes
- 15F—Rousseau fine sand, dark subsoil, 35 to 60 percent slopes
- 17D—Deer Park fine sand, 0 to 15 percent slopes
- 17F—Deer Park fine sand, 25 to 50 percent slopes
- 18B—Rubicon sand, 0 to 6 percent slopes
- 18D—Rubicon sand, 6 to 15 percent slopes
- 18E—Rubicon sand, 15 to 35 percent slopes
- 19B—Kalkaska sand, 0 to 6 percent slopes
- 19D—Kalkaska sand, 6 to 15 percent slopes
- 19E—Kalkaska sand, 15 to 35 percent slopes
- 19F—Kalkaska sand, 35 to 70 percent slopes
- 20A—Croswell sand, 0 to 3 percent slopes
- 21A—Au Gres sand, 0 to 3 percent slopes
- 22—Kinross muck, 0 to 2 percent slopes
- 25B—Guardlake loam, 0 to 6 percent slopes
- 25D—Guardlake loam, 6 to 15 percent slopes
- 27B—Emmet sandy loam, 1 to 6 percent slopes
- 28B—Longrie sandy loam, 1 to 6 percent slopes
- 29A—Solona fine sandy loam, 0 to 3 percent slopes
- 32A—Allendale loamy fine sand, 0 to 3 percent slopes
- 33—Pits, sand and gravel
- 34—Entisols, flooded
- 35—Histosols and Aquents, ponded
- 36—Markey and Carbondale mucks
- 37—Dawson and Loxley peats
- 38F—Deer Park-Kinross complex, 0 to 50 percent slopes
- 39D—Au Gres-Dawson-Rubicon complex, 0 to 15 percent slopes
- 40A—Rudyard-Allendale complex, 0 to 3 percent slopes
- 41D—Summerville-Rock outcrop complex, 1 to 15 percent slopes
- 41F—Summerville-Rock outcrop complex, 15 to 45 percent slopes
- 42D—Emmet-Kalkaska complex, 1 to 15 percent slopes
- 44B—Posen stony fine sandy loam, 1 to 6 percent slopes
- 44D—Posen stony fine sandy loam, 6 to 15 percent slopes
- 44E—Posen stony fine sandy loam, 15 to 35 percent slopes
- 46B—Pence sandy loam, 0 to 6 percent slopes
- 46D—Pence sandy loam, 6 to 15 percent slopes
- 46E—Pence sandy loam, 15 to 35 percent slopes
- 48E—Wainola-Kinross-Rousseau complex, 0 to 35 percent slopes
- 49A—Wainola fine sand, 0 to 3 percent slopes
- 50—Deford and Leafriver soils, 0 to 2 percent slopes
- 52A—Ingalls loamy sand, 0 to 3 percent slopes
- 53B—Menominee loamy sand, 0 to 6 percent slopes
- 56A—Ensign silt loam, 0 to 3 percent slopes, rocky
- 57B—Summerville-Longrie complex, 1 to 6 percent slopes, rocky
- 61A—Halfaday sand, 0 to 3 percent slopes
- 67B—Duel-Rock outcrop complex, 1 to 6 percent slopes
- 68—Pinconning mucky loamy sand
- 78B—Waiska sandy loam, 0 to 6 percent slopes
- 79B—Kalkaska-Manistee sands, 0 to 6 percent slopes
- 79D—Kalkaska-Manistee sands, 6 to 15 percent slopes
- 80B—Superior fine sandy loam, 1 to 6 percent slopes
- 83A—Allendale-Croswell complex, 0 to 3 percent slopes
- 84B—Rousseau, dark subsoil-Alcona complex, 0 to 6 percent slopes
- 84D—Rousseau, dark subsoil-Alcona complex, 6 to 15 percent slopes
- 84F—Rousseau, dark subsoil-Alcona complex, 25 to 50 percent slopes
- 85B—Kalkaska-Ocqueoc complex, 0 to 6 percent slopes
- 86A—Ingalls-Halfaday complex, 0 to 3 percent slopes
- 87B—Rousseau fine sand, moderately wet, 0 to 6 percent slopes
- 88A—Croswell-Au Gres sands, 0 to 3 percent slopes
- 89A—Kinross-Au Gres complex, 0 to 3 percent slopes
- 91B—Rousseau fine sand, 0 to 6 percent slopes
- 91D—Rousseau fine sand, 6 to 15 percent slopes
- 91E—Rousseau fine sand, 15 to 35 percent slopes
- 92A—Biscuit very fine sandy loam, 0 to 3 percent slopes
- 93F—Ontonagon-Pickford complex, 0 to 50 percent slopes

94A—Markey-Kinross-Au Gres complex, 0 to 3 percent slopes  
 95A—Bowers silt loam, 0 to 3 percent slopes  
 96B—Velvet-Westbury complex, 0 to 6 percent slopes  
 97A—Wega very fine sandy loam, 0 to 3 percent slopes  
 98—Ermatinger silt loam  
 99A—Westbury stony fine sandy loam, 0 to 3 percent slopes  
 101—Chippeny muck  
 102—Kinross-Dawson complex  
 103D—Velvet-Rockbottom complex, 6 to 15 percent slopes  
 103E—Velvet-Rockbottom complex, 15 to 35 percent slopes  
 104B—Amasa very fine sandy loam, 0 to 6 percent slopes  
 104D—Amasa very fine sandy loam, 6 to 15 percent slopes  
 104F—Amasa very fine sandy loam, 25 to 50 percent slopes  
 106A—Potagannissing-Rock outcrop complex, 0 to 3 percent slopes  
 107B—Oldman stony fine sandy loam, 2 to 6 percent slopes  
 108D—Shelter-Alpena complex, 0 to 15 percent slopes  
 111—Gutport muck  
 112—Soo silty clay loam  
 113—Ruse mucky fine sandy loam  
 114B—Velvet very stony loamy sand, 0 to 6 percent slopes  
 114D—Velvet very stony loamy sand 6 to 15 percent slopes  
 116—Udorthents, nearly level  
 117B—Manistee sand, 0 to 6 percent slopes  
 117D—Manistee sand, 6 to 15 percent slopes  
 117F—Manistee sand, 25 to 50 percent slopes  
 119—Gogomain very fine sandy loam  
 121B—Rockbottom stony silt loam, 2 to 6 percent slopes  
 122—Pits, quarry  
 123B—Ocqueoc fine sand, 0 to 6 percent slopes  
 124D—Alpena very cobbly sandy loam, 0 to 15 percent slopes  
 125B—Croswell-Markey complex, 0 to 6 percent slopes  
 126—Pickford silt loam, 0 to 2 percent slopes  
 127—Gay stony muck  
 128F—Alcona-Markey complex, 0 to 50 percent slopes  
 129A—Rudyard silt loam, 0 to 3 percent slopes  
 130A—Rudyard-Pickford silty clay loams, 0 to 3 percent slopes  
 132B—Sugar very fine sandy loam, 0 to 6 percent slopes  
 132F—Sugar very fine sandy loam, 25 to 50 percent slopes  
 133—Dora muck

135B—Longrie-Posen complex, 0 to 6 percent slopes  
 136A—Westbury-Gay complex, 0 to 3 percent slopes  
 137A—Kinross-Wainola complex, 0 to 3 percent slopes  
 138B—Rousseau, dark subsoil-Urban land complex, 0 to 4 percent slopes  
 139A—Rudyard-Urban land complex, 0 to 3 percent slopes  
 143—Burleigh loamy fine sand  
 144—Urban land-Udorthents complex, nearly level  
 145A—Gaastra-Gogomain-Ingalls complex, 0 to 3 percent slopes  
 146A—Allendale-Fibre complex, 0 to 3 percent slopes  
 147B—Shelter very stony loam, 0 to 6 percent slopes  
 147D—Shelter very stony loam, 6 to 15 percent slopes  
 148B—Longrie-Rock outcrop complex, 1 to 6 percent slopes  
 149B—Kalkaska sand, 0 to 6 percent slopes, stony  
 150—Fibre muck  
 151—Beavertail muck  
 152—Grousehaven muck  
 153—Dumps, limestone  
 154F—Dawson-Deer Park-Wainola complex, 0 to 50 percent slopes  
 155B—Allendale-Posen-Pickford complex, 0 to 6 percent slopes  
 156A—Rockcut-Pinconning complex, 0 to 3 percent slopes  
 159B—Amasa-Sugar very fine sandy loams, 0 to 6 percent slopes  
 159F—Amasa-Sugar very fine sandy loam, 25 to 50 percent slopes  
 W—Water



Washkey Watershed Soil Types	East	Hickler	Orrs	South	South of East	E St Marys	W St Marys	West	Total Acreage	Percent of Watershed
Rubicon sand, 0 to 6 percent slopes		2,975	8,970				4,188	2,154	18,286.40	16.3%
Markey and Carbondale mucks	302	482	244	2,504	135	274	690	2,808	7,439.90	6.6%
Pickford silty clay loam, 0 to 2 percent slopes	1,186	267	80	1,301	1,281	147	218	2,281	6,759.10	6.0%
Pickford silt loam, 0 to 2 percent slopes	424	1,942		1,484	1,399			234	5,482.30	4.9%
Rudyard silt loam, 0 to 3 percent slopes	297	1,223	153	1,741	1,751		34	251	5,449.40	4.8%
Gogomain very fine sandy loam	1,416	1,231	114	1,085	400		68	35	4,349.60	3.9%
Ontonagon-Pickford complex, 0 to 50 percent slopes	610	454	118	1,098	1,069		134	644	4,126.60	3.7%
Bowers silt loam, 0 to 3 percent slopes	10	1,176	769	429	994		79	500	3,956.00	3.5%
Biscuit very fine sandy loam, 0 to 3 percent slopes	1,405	843	142	436	436	12	467	42	3,782.00	3.4%
Rudyard silty clay loam, 0 to 3 percent slopes	1,922	460		102	842			204	3,530.20	3.1%
Kalkaska sand, 0 to 6 percent slopes			924	823			1,130	483	3,359.00	3.0%
Soo silty clay loam	71	1,342	437	109	356		3	1,004	3,322.80	3.0%
Wainola-Kinross-Rousseau complex, 0 to 35 percent slopes	95	180	200	88		124		2,025	2,710.50	2.4%
Gaastra-Gogomain-Ingalls complex, 0 to 3 percent slopes	193	206	135	1,321	39	68	305		2,266.00	2.0%
Kinross-Au Gres complex, 0 to 3 percent slopes		161	13	875	596	218	193	68	2,125.00	1.9%
Croswell sand, 0 to 3 percent slopes	24	128	44	34	11		207	1,051	1,498.70	1.3%
Allendale-Fibre complex, 0 to 3 percent slopes	202	253		354	63	49		570	1,491.30	1.3%
Rousseau fine sand, dark subsoil, 0 to 6 percent slopes		116	142	149			299	737	1,443.10	1.3%
Pinconning mucky loamy sand	63	49	0	44		25		1,228	1,409.70	1.3%
Pence sandy loam, 0 to 6 percent slopes				204	80		1,002	118	1,403.80	1.2%
Deford and Leafriver soils, 0 to 2 percent slopes		143			57	16	250	817	1,282.90	1.1%
Ingalls loamy sand, 0 to 3 percent slopes	38	39	44	54	12	17	484	588	1,276.50	1.1%
Rudyard-Pickford silty clay loams, 0 to 3 percent slopes	203	637	81	128	17			123	1,189.10	1.1%
Kinross-Wainola complex, 0 to 3 percent slopes	674	157	51	41		201			1,123.90	1.0%
Rubicon sand, 6 to 15 percent slopes	6	43	547	32	4		159	325	1,115.10	1.0%

Commented [AEM2]: Update with trust lands

Ermatinger silt loam	264	247	55	30	69		312	89	1,066.20	0.9%
Deer Park fine sand, 0 to 15 percent slopes						16	1,049		1,065.30	0.9%
Wainola fine sand, 0 to 3 percent slopes	167	7		41		48	34	766	1,062.90	0.9%
Allendale loamy fine sand, 0 to 3 percent slopes	276	15		141	14	0		603	1,048.40	0.9%
Au Gres sand, 0 to 3 percent slopes		99	33	22		11	428	433	1,026.00	0.9%
Histosols and Aquents, ponded	109		163	531	30		134	53	1,020.70	0.9%
Dawson and Loxley peats	69	197	43	28		122	46	483	989.30	0.9%
Ontonagon silt loam, 2 to 6 percent slopes	431	83		59	362			17	951.60	0.8%
Kinross muck, 0 to 2 percent slopes	145	74	78	3	8		9	623	939.70	0.8%
Gaastra silt loam, 0 to 3 percent slopes	60	160		29	1		567	69	885.60	0.8%
Crowell-Au Gres sands, 0 to 3 percent slopes		24	13	589	13	152		28	817.80	0.7%
Sugar very fine sandy loam, 25 to 50 percent slopes	146	427	104	41	6	20			743.40	0.7%
Water	27	109	19	64	22	3	331	152	727.60	0.6%
Entisols, flooded	9						10	641	660.10	0.6%
Alcona loamy very fine sand, 0 to 6 percent slopes	29	12		46			84	466	636.30	0.6%
Rousseau fine sand, moderately wet, 0 to 6 percent slopes	45	105	25	67			40	342	622.70	0.6%
Markey-Kinross-Au Gres complex, 0 to 3 percent slopes		26	6	89	7	418	27		571.70	0.5%
Wega very fine sandy loam, 0 to 3 percent slopes	25	216	55		73		199		568.20	0.5%
Kalkaska sand, 6 to 15 percent slopes		8	150	70	2	10	301	2	543.20	0.5%
Rousseau, dark subsoil-Urban land complex, 0 to 4 percent slopes				502					501.90	0.4%
Ingalls-Halfaday complex, 0 to 3 percent slopes							428	39	467.00	0.4%
Kalkaska sand, 35 to 70 percent slopes	0			53		42	277	31	402.70	0.4%
Au Gres-Dawson-Rubicon complex, 0 to 15 percent slopes		57		156				179	391.20	0.3%
Halfaday sand, 0 to 3 percent slopes		10		108	1		133	134	386.70	0.3%
Ontonagon silt loam, 25 to 50 percent slopes	102	71		29	12		161	4	378.90	0.3%

Kalkaska-Ocqueoc complex, 0 to 6 percent slopes				6			184	156	346.40	0.3%
Rousseau fine sand, dark subsoil, 6 to 15 percent slopes			6	53			183	29	271.50	0.2%
Sugar very fine sandy loam, 0 to 6 percent slopes	174			17	37		15		243.40	0.2%
Alcona loamy very fine sand, 6 to 15 percent slopes				54			80	101	235.10	0.2%
Solona fine sandy loam, 0 to 3 percent slopes		3		7				198	207.40	0.2%
Negwegon silt loam, 6 to 15 percent slopes	55	23		47	49	12		15	199.20	0.2%
Rousseau, dark subsoil-Alcona complex, 0 to 6 percent slopes							191		190.70	0.2%
Allendale-Croswell complex, 0 to 3 percent slopes								159	158.50	0.1%
Pits, sand and gravel	5	12		62	3	12	41	6	140.30	0.1%
Posen stony fine sandy loam, 6 to 15 percent slopes		16			122				137.50	0.1%
Rubicon sand, 15 to 35 percent slopes		44	1	19	15		11	44	133.50	0.1%
Alcona-Markey complex, 0 to 50 percent slopes							132		131.70	0.1%
Posen stony fine sandy loam, 1 to 6 percent slopes		7		1	124				131.50	0.1%
Ocqueoc fine sand, 0 to 6 percent slopes	3			58	4			48	112.60	0.1%
Rudyard-Allendale complex, 0 to 3 percent slopes					111				110.80	0.1%
Fibre muck	16			80					95.80	0.1%
Udorthents, nearly level	39	19		19	11			2	89.70	0.1%
Burleigh loamy fine sand	87								86.90	0.1%
Rousseau fine sand, 0 to 6 percent slopes				43	7			30	79.80	0.1%
Amasa very fine sandy loam, 0 to 6 percent slopes	79								79.40	0.1%
Manistee sand, 25 to 50 percent slopes	61					8			68.90	0.1%
Waiska sandy loam, 0 to 6 percent slopes						36	33		68.80	0.1%
Dora muck					61				60.70	0.1%

Rousseau fine sand, 15 to 35 percent slopes		10	26			16	0		51.10	0.05%
Kinross-Dawson complex				50					50.40	0.04%
Manistee sand, 6 to 15 percent slopes	41							9	50.10	0.04%
Rousseau fine sand, 6 to 15 percent slopes			9	7				30	45.70	0.04%
Alcona loamy very fine sand, 25 to 50 percent slopes				26		19			45.10	0.04%
Velvet very stony loamy sand, 0 to 6 percent slopes					33				33.40	0.03%
Kalkaska-Manistee sands, 0 to 6 percent slopes								32	32.30	0.03%
Guardlake loam, 6 to 15 percent slopes				29					29.20	0.03%
Kalkaska sand, 15 to 35 percent slopes				4		19			22.40	0.02%
Manistee sand, 0 to 6 percent slopes	9	9			4				22.00	0.02%
Velvet very stony loamy sand 6 to 15 percent slopes					13				13.10	0.01%
Rousseau fine sand, dark subsoil, 15 to 35 percent slopes				11					11.30	0.01%
Guardlake loam, 0 to 6 percent slopes				7	2				8.70	0.01%
Emmet sandy loam, 1 to 6 percent slopes			3				4		6.10	0.01%
Croswell-Markey complex, 0 to 6 percent slopes	4								4.40	0.004%
Superior fine sandy loam, 1 to 6 percent slopes	2								2.40	0.002%
Menominee loamy sand, 0 to 6 percent slopes								2	2.30	0.002%
Pence sandy loam, 6 to 15 percent slopes				1					1.10	0.001%
<b>Grand Total Acreage</b>	<b>11,622</b>	<b>16,593</b>	<b>13,997</b>	<b>17,725</b>	<b>10,758</b>	<b>2,113</b>	<b>15,356</b>	<b>24,302</b>	<b>112,465.20</b>	<b>100%</b>

## APPENDIX F: Bay Mills Indian Community Timber Use Policy 1993

### POLICY AND SCOPE

The harvest of forest products provides benefits to the Bay Mills Indian Community. Where the value of products obtained through cutting is relatively small and the use of a contract sale is not required, timber harvest will be accomplished through a timber cutting permit or by free-use without permit.

### AUTHORITY

25 CFR 163.19 and 25 CFR 163.20, 53 BIAM 4.

#### I. GENERAL

1. The stumpage value which may be cut in one year by an individual on a free-use permit shall not exceed \$500.00. Paid permits for RESALE shall not exceed \$2,500.00.
2. No RESALE permits shall be issued for timber on active logging units.
3. Resale permits shall be issued on Form BIA-5331 or its computer-generated equivalent. Free-use permits will not require a BIA permit as per 25 CFR 163.20. A tribal permit will be required and used to provide statistical accountability of products removed through free-use cutting.
4. The permittee must be an enrolled member of the Bay Mills Indian Community. The permittee must be at least 21 years of age and cut and pay for the timber himself/herself. The permit (BIA or Tribal) is not transferable. Any exceptions to this paragraph will be approved individually by the Bay Mills Tribal Council.
5. If the timber is to be harvested by other than a tribal member, the permittee must be present during all cutting and hauling and have the permit in his/her possession. If the permittee is disabled, exception to this paragraph may be granted by the Bay Mills Tribal Council.
6. Any free-use cutting done on active timber sales will be limited to areas where falling, skidding, and decking have been completed. Any disturbance to the logging operation may result in termination of the permit.
7. Violations or misuse of the permit will result in immediate revocation of the permit. No other permit will be issued for the remainder of the fiscal year.

#### II. RESALE PERMITS

1. Resale permits shall be specific as to location

(Compartment, stand and legal description to 1/4 section). A map will accompany each permit, designating the area of the permit. The area will be designated on the ground by ribbon or paint.

2. Volumes of forest products to be removed will be estimated by cruising to accuracy standards of 10%.
3. Stumpage rates for forest products to be removed will be calculated using the Michigan DNR system (an appraisal which accounts for quantity, quality, logging difficulty, and market conditions). Each permit will be appraised individually. Exceptions to the appraised rate will be made only upon Bay Mills Council approval.
4. Bonds will be required on resale permits. The amount of the bond will be 25% of the estimated stumpage value.
5. An advance stumpage payment amounting to 25% of the estimated value of the timber designated for cutting must be made before cutting begins. At no time during cutting can the prepaid stumpage balance amount to less than 10% of the estimated permit value.
6. Scaling methods and locations will be specified on the Permit.
7. All paid permits require approval of the Bay Mills Tribal Council and the Superintendent, Michigan Agency.
8. Commercial resale permits may be issued to a non-tribal entity when it is necessary to prevent loss of value resulting from fire, insects, disease, windthrow, or other catastrophic events, provided Indian operators decline or are unable to harvest these materials in a timely manner.

### III. FREE-USE PERMITS

1. Free-Use Permits, subject to the limitations stated in Section I., will be issued for forest products for the permittee's personal use. These products may not be traded, sold, or exchanged for other goods or services.
2. The value of forest products removed under Free-Use permits will be determined in accordance with Table 1. These values will be used for the statistical reporting of timber cut at Bay Mills Indian Community each fiscal year.
3. The President, Bay Mills Indian Community, will issue Free-Use Permits. All cutting other than clearing of residential or recreational lease areas will be in areas approved by the Michigan Agency Forester. The Bay Mills Tribal Council will approve permits for clearing lease areas. If merchantable timber is to be removed from lease areas, the Agency Forester will estimate the volumes to be cut and appraise the value of the timber using the MDNR appraisal system. The area will be indicated on the Free-Use Permit. A sample permit is attached.
4. Free-Use Permits will be used for the following:
  - a. Firewood cutting
  - b. Clearing of residential or recreational leases
  - c. Fence posts

- d. Maple sap collection
- e. Miscellaneous cutting done for educational, religious, or ceremonial use by groups authorized by the Bay Mills Tribal Council.

IV. FREE-USE CUTTING WITHOUT PERMITS

1. All Bay Mills members residing on the reservation shall be allowed free-use without permit one Christmas tree per household, cedar or balsam boughs for religious or ceremonial use, and nuts or berries. This does not include cutting of any of the above for resale.

APPROVAL

*William D. Parker*  
 President Bay Mills Tribal  
 Council as per Resolution  
 EM 93-1-12

2-1-93  
 Date

*Anne E. Bolton*  
 Superintendent, Michigan Agency

2-11-93  
 Date

*Robert O. Waples*  
 Area Director

2-22-93  
 Date

EXHIBIT A

BAY MILLS INDIAN COMMUNITY  
FREE-USE CUTTING PERMIT

PERMIT NO.: \_\_\_\_\_

PERMITTEE: \_\_\_\_\_

DATE ISSUED: \_\_\_\_\_

EXPIRATION DATE: \_\_\_\_\_

CUTTING AREA DESCRIPTION: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If commercial timber is cut, indicate volume and value  
by species/product: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPROVED: \_\_\_\_\_  
President, Bay Mills Indian Community

This permit is valid for personal use only.

Permit is not transferable.

Permit must be in the possession of the permittee when  
in cutting area.

Permit may be terminated at any time by the Bay Mills  
Tribal Council.

## APPENDIX H: Bay Mills Indian Community Forest Desired Uses Survey Results

### SUMMARY OF SURVEY RESULTS 2021

Forest users were surveyed through an online survey. Stakeholders identified many desired uses for the local forests. In the spring of 2021, the Biological Services Department surveyed community members on their desired uses for the forest. Forty people responded to the survey online.

People surveyed were shown a series of maps of specific BMIC forest management areas. They were then asked “How would you like to use the \_\_\_\_\_ forest area in the future (check all that apply)?”

- Traditional/ Spiritual/ Cultural uses
- Hunting/ trapping
- Gathering wild food/ medicine/ bark/ foliage
- Sugarbushing
- Protecting native species
- Timber harvesting/ firewood cutting
- Trails and access for hiking/ cross-country skiing/ snowshoeing/ etc
- Trails and access for ATVs/ snowmobiles
- Trails and access for horse riding
- Conserving riparian corridor/ areas of biodiversity
- Wildlife viewing
- Aesthetic appreciation (painting, photography, etc)
- Canoeing/ kayaking/ paddling/ swimming
- Motor boating
- Other

In conclusion, non-timber forest uses scored highest by those who responded. Of the 40 respondents, gathering of wild foods and medicines is most important in the Spectacle Lake, Sugar Island, and Chief Hardwoods areas. Sugarbushing is most important in the Chief Hardwoods, and Sugar Island areas. Firewood and timber harvesting are most important Chief Hardwoods, and Little Waiska Headwaters. Refer to Table G.1 for more information.

Table G. 1. Forest management areas most important for forest use activities.

Activity	Forest Management Area
Canoeing	Spectacle Lake (33 responses)
Gathering	Spectacle Lake, Sugar Island, Chief Hardwoods (31)
Cultural/Traditional	Spectacle Lake, Sugar Island (29-28)
Hiking	Sugar Island, Spectacle Lake, Chief Hardwoods (28-26)
Fishing	Sugar Island, Spectacle Lake (23)
Hunting/trapping	Chief Hardwoods, Sugar Island, Little Waiska (22-19)
Sugarbushing	Chief Hardwoods, Sugar Island (22-21)
ATV/ Snowmobile	Wetland Preserve, Chief Hardwoods (15)
Aesthetics	Spectacle Lake, Wetland Preserve (13-11)
Firewood	Chief Hardwoods, Little Waiska Headwaters (11)
Horse trails	Spectacle Lake, Chief Hardwoods, Little Waiska Headwaters (8)

Spectacle Lake forest management area

This forest management area hugs Spectacle Lake to one side and residential homes to the other. Portions of this area are being considered for low-development parkland. Survey respondents selected canoeing, gathering wild foods, and a tie between traditional/cultural uses and native species habitat as their top forest uses. Horse riding trail and timber/ firewood harvesting ranked the lowest. Additional write-in comments included the following:

- *“Picnic area and maybe some outhouses. Lots of garbage cans that are emptied regularly”*
- *“I thought this was designated as cultural use years ago”*

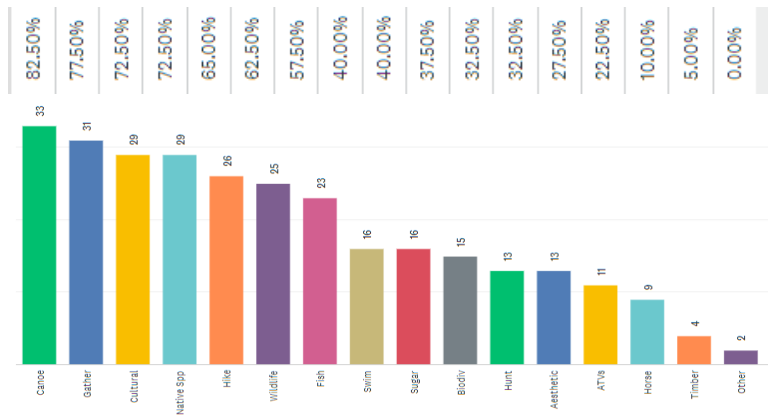


Figure G.1. Desired uses of Spectacle Lake forest area.

Greater Wetland Preserve forest management area

This forest management area is located between two areas of development on the reservation. Survey respondents selected gathering wild foods, native species habitat and a tie between hiking and wildlife viewing as their top forest uses. Horse riding trail and timber/firewood harvesting ranked the lowest. Additional write-in comments included the following:

- *“Maintain Hanks Trails and add a trail along Deep Creek. The rest is a good spot for beaver trapping”*

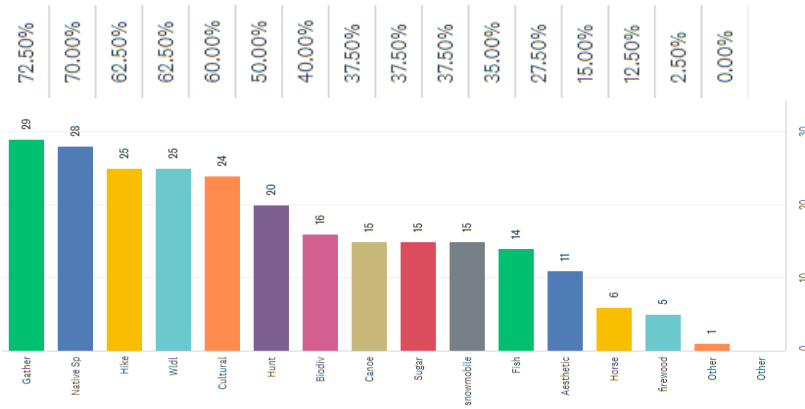


Figure G.2. Desired uses of Wetland Preserve forest area.

**Chief Hardwoods forest management area**

This forest management area is located on the western side of the reservation and is beginning to see residential development immediately adjacent to it. Survey respondents selected wildlife viewing, gathering wild foods, and a tie between native species habitat and traditional/cultural uses as their top forest uses. Horse riding trail and aesthetics ranked the lowest. Additional write-in comments included the following:

- *“Allow members to collect those trees knocked down. They are just left to rot. You need to correct your maps, some of these are wrong.”*

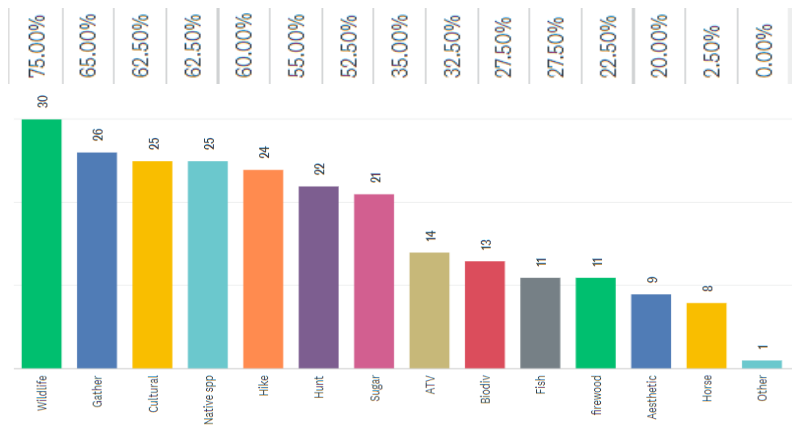


Figure G.3. Desired uses of Chief Hardwoods forest area.

Little Waiska Headwaters (south Farms) forest management area (including Black Ash Preserve)

This forest management area is located on the southern side of the reservation with steep headwater streams draining the bluff. Survey respondents selected native species habitat, , gathering wild foods, wildlife viewing, and traditional/cultural uses as their top forest uses. Horse riding trail and aesthetics ranked the lowest. Additional write-in comments included the following:

- *“Development”*
- *“Road to connect the other portion of reservation property off of Irish Line Rd.”*
- *“Outside of Black Ash Preserve, I would like to see an expansion of the golf course to provide more holes to be played. We should also look at how we can reestablish black ash in this area.”*
- *“Stop Superior Township from dumping in the Bay. It used to be a great swimming area. Not now after all that sewage.”*

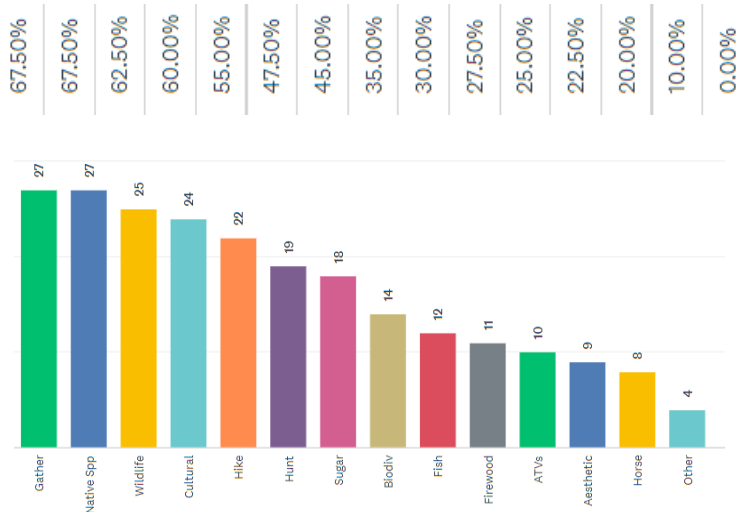
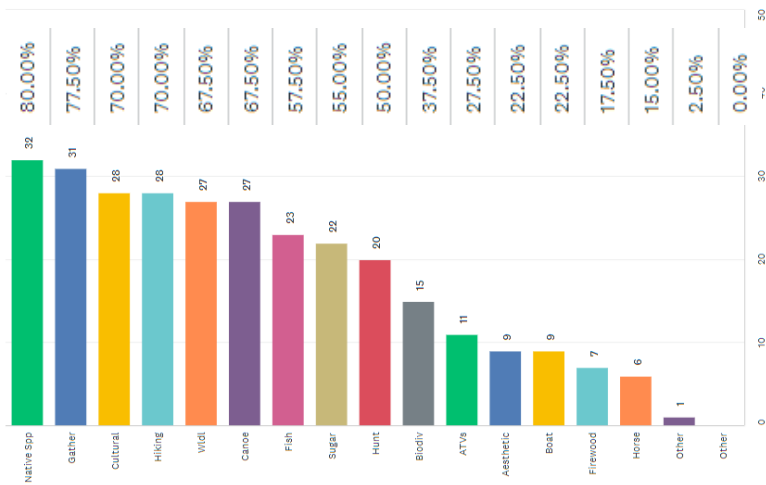


Figure G.4. Desired uses of Little Waiska Headwaters forest area.

Sugar Island forest management area

This forest management area is located on Sugar Island with little surrounding development. Survey respondents selected native species habitat, gathering wild foods, traditional/cultural uses, and hiking as their top forest uses. Timber/ firewood harvesting and horse riding trails ranked the lowest. Additional write-in comments included the following:

- *“Save the ash trees if there are any left to save.”*



G.5. Desired uses of Sugar Island forest area.

Greater Gumshoes Wetland forest management area

The Gumshoes area was not included in this survey due to limited number of questions. Land use there currently includes camping at a small campground and canoeing North Pond. Wetland conditions in the area limit many kinds of trail development or timber harvesting.