

Integrated Resource Management Plan



2002-2012



KEWEENAW BAY INDIAN COMMUNITY

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Resolution KB-1152-2003

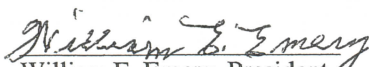
- WHEREAS,** The Keweenaw Bay Indian Community is a duly recognized Indian Reservation under the Indian Reorganization Act of June 18, 1934, (48 Stat. 984) as amended by the Act of June 15, 1935, (49 Stat. 378), and
- WHEREAS,** The Keweenaw Bay Indian Community has adopted a Constitution and By-laws approved December 17, 1936; and
- WHEREAS,** The Keweenaw Bay Tribal Council has a vital concern for the welfare of its Tribal membership and is authorized to act in all matters that concern the welfare of the Tribe, and
- WHEREAS,** The Keweenaw Bay Tribal Council has supported the development of an Integrated Resource Management Plan (IRMP) for the Keweenaw Bay Indian Community and believes integrated resource management is a sound management strategy for the protection of its resources.


NOW THEREFORE BE IT RESOLVED THAT the Keweenaw Bay Indian Community adopts the Integrated Resource Management Plan developed by its' IRMP Team and distributed in January of 2003.

CERTIFICATION

We, William Emery, President, and Susan LaFerner, Secretary of the Keweenaw Bay Indian Community, do hereby certify that this resolution No. KB-1152-2003 to be a true and exact copy as approved by the Tribal Council of the Keweenaw Bay Indian Community at a duly called meeting held on the 1st day of February, 2003, there being a quorum present, by a vote of 10 in favor, 0 opposed, and 1 abstentions, as follows:

Vice President Michael LaFerner, Sr.:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Secretary Susan LaFerner:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Treasurer Amy St. Arnold:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Asst. Secretary Elizabeth Mayo:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Doreen Blaker:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Larry Denomie III:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Gary Loonsfoot Sr.:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Beverly Lussier:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Ann Misegan:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Jennifer Misegan:	<u>AYE</u>	NAY	ABSTAIN	NOT PRESENT
Councilperson Warren Swartz, Jr.:	AYE	NAY	<u>ABSTAIN</u>	NOT PRESENT
President William E. Emery (If Required):	AYE	NAY	ABSTAIN	NOT PRESENT


William E. Emery, President


Susan J. LaFerner, Secretary



KEWEENAW BAY INDIAN COMMUNITY
INTEGRATED RESOURCES MANAGEMENT PLAN

Approval Date: 2-12-03

Michael Donofrio
Michael Donofrio, Director
KBIC Natural Resources Department

By Tribal Resolution No. KB-1152-2003

Approval Date: 2-13-03

William E. Emery
William E. Emery, Chairman
Keweenaw Bay Indian Community

Approval Date: 2-14-03

Anne E. Bolton
Anne E. Bolton, Superintendent
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5/29/03
Approval Date: 5.29.2003

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CLARITY A. SMITH
Deputy Regional Director
Midwest Regional Office



INTRODUCTION

KBIC IRMP Vision Statement

"To live in harmony while enhancing and sustaining the resources of the Keweenaw Bay Indian Community for the Seventh Generation."

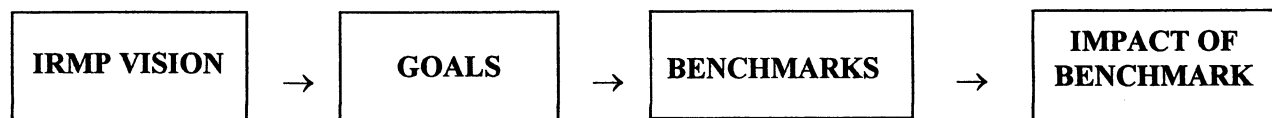
Integrated Resource Management planning (IRMP) is an initiative endorsed by the Bureau of Indian Affairs. The IRMP process attempts to recognize the complex interrelationships in the natural world. Integrated resource management goes beyond the natural world and incorporates social, cultural, environmental, and economic aspects of the reservation into management decisions. Integrated resource management planning links all decisions that affect a tract of land together so that each decision's impact can be weighed against all others. Integrated resource planning has been adopted by a number of agencies including: USDA Forest Service, Bureau of Land Management, Universities of Vermont and New Mexico and the Center for Holistic Resource Management. The Bureau of Indian Affairs has sponsored IRMP development on several Indian reservations across the United States.

The Keweenaw Bay Indian Community administers the L'Anse and Ontonagon Indian Reservations located within Michigan's Upper Peninsula. These reservations were established through the Treaty of 1854. KBIC has also trust lands in Marquette County. KBIC retains hunting, gathering and fishing rights in the western Upper Peninsula through the Treaty of 1842. The L'Anse reservation is the Community's principal holdings with over 70,000 acres along the shores of Lake Superior's of Keweenaw Bay. The Community has over 3,150 members with approximately 1,200 residing on the L'Anse Reservation. The total number of tribal and non-tribal residents within the L'Anse Reservation is over 3,600. The village of L'Anse and its' 2,200 residents lie adjacent to the Reservation. Therefore, this IRMP focuses on a rural community and associated components. Our IRMP focuses on the L'Anse Indian Reservation, although several references are made about resources outside the reservation but within the western Upper Peninsula.

The Keweenaw Bay Indian Community received IRMP funding from the Bureau of Indian Affairs, U.S. Department of Health and Human Services' Administration for Native Americans program, U.S. Environmental Protection Agency, and Tribal Council from 1999 to 2002. KBIC began their IRMP with the establishment of a team in September of 1999. Carolee Dodge Francis of Communication Works, Iron Mountain, MI has served as the facilitator for our IRMP process. The Team members were trained on IRMP by Don Hall of BIA in December of 1999 and April and September of 2000. Our Team was composed mostly of KBIC Natural Resources Department staff and Natural Resources Committee as well as several other individuals employed by KBIC. Bruce Petersen, USDA Natural Resource Conservation Service and Eric Oliphant and John Banuchie of BIA also played vital roles in contributing to this document. We also believed other major landowners on the Reservation should be included, so we involved representatives from Mead - West Vaco Corporation. They own and manage over 15,000 acres within the L'Anse Reservation. The state of Michigan possesses just a few hundred acres on the L'Anse Reservation. No other federal entity owns land within this Reservation. The state of Michigan, USDA Forest Service, and timber businesses own the majority of land in the western Upper Peninsula.

Our IRMP Team developed a 20- question survey (Appendix A) in January of 2000 and distributed it to over 1,800 adult Tribal members residing on and off the L'Anse Indian Reservation. The survey was also available to non-Tribal members living in Baraga County, Michigan. We received completed surveys from 786 individuals and utilized respondent's opinions to formulate our IRMP.

This IRMP is organized into several sections or chapters based on Team members comments and through the review of completed IRMP's from Red Lake, White Earth, Bad River, Lac Du Flambeau, and Leech Lake Indian Reservations. Our IRMP is split into the following sections: Environment, Cultural, Fisheries, Wild Rice and Native Plants, Wildlife, Forestry, Enforcement, Recreation, Economic Development, Soils, Water Quality, Roads/ Transportation, Land Acquisition, and Partnership- Education. The reader will find a goal and short introduction associated with each section. We've also assigned benchmarks, impacts of benchmarks and status for each section.



The IRMP Team has consisted of the following members:

Jason Ayres (Land Acquisition)	Gene Mensch (Wildlife)
John Banuchie (Fire Management)	Eric Oliphant (Forestry and Chemicals)
Jeanne Bouschor	Bruce Petersen (Soils)
Donald Carlson	Evelyn Ravindran (Plants)
Robert Curtis	Mike Sladewski (Air, Solid & Hazardous Waste & Storage Tanks)
Fred Dakota	Judy Smith
Mike Donofrio (Fish and Recreation)	Pauline Spruce (Cultural)
Mike Duschene	Warren Swartz, Jr.
Jim Ekdahl	Paul Tesanovich
Monique Fox	Dana Varney & Andy Solka (Mead Corp.)
Carolee Dodge Francis (Consultant)	Robert Voakes, Sr.
Violet Friisvall (Enforcement)	Duane Misegan
Dale Goodreau	Jesse Luttenton
Kelly Jacobs (Water Quality and Wetlands)	

We believe this document should serve as a guidance tool for the Tribal Council and respective departments of the Keweenaw Bay Indian Community. We've tailored this plan to serve a ten-year period (2002-2012). We believe revision for the second IRMP should start in 2010, although annual review starting in 2004 would be valuable. A point of contact for comments on this document is the KBIC Natural Resources Department, HC01 Box 120, L'Anse, MI 49946 phone 906-524-5757.

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ENVIRONMENTAL

Goal: Assure the public health and environmental quality of the natural resources of the Keweenaw Bay Indian Community ("KBIC").

BIOLOGICAL CONTROL CHEMICALS MANAGEMENT

Just as the KBIC share concerns about the future quality of life for its people and Tribal resources, it is concerned about the use of certain chemicals within its boundaries, and the impacts they can have on the environment. As modern day science provides new solutions to natural resource management problems, many are cost-effective solutions that include application of various types of chemicals, which include those classified as herbicides (vegetation management), pesticides (rodents), insecticides (insects), and fungicides (fungus).

Even though current Tribal management practices do not facilitate the use of

chemicals, the possibility for future use is unknown. In anticipation of future use, it is important that procedures are developed to protect the natural resources when chemical use is deemed necessary, and methods are established to monitor environmental impacts of all chemical use that occurs within the boundaries of the Reservation. No management strategies are currently in place within the community to address this issue.

This section of the IRMP provides the framework to better protect the community and natural resources during chemical usage.

Benchmarks

Continue system of data collection on all general and restricted use agricultural chemicals sold or used within the Reservation boundaries.

- Staff is developing a quality assurance plan and standard operation procedures for monitoring and sampling for pesticides.
- Monitoring to improve the database on all general and restricted use agricultural chemicals sold or used within KBIC Reservation boundaries.

Enforce regulation of Chemical Control Code. Enforcement and court procedures will be developed to appropriately respond to violations.

Impacts of Benchmarks

This alternative provides increased data on the impact of pesticide use on the environment within the Reservation. The alternative does provide for the implementation and enforcement of the Keweenaw Bay Indian Community Chemical Control Code. The result is that the Tribe will be better informed about pesticide use on the Reservation. The code will also provide for on-site inspection of distributors and pesticide application sites such as: landowners, golf courses and private and public applicators.

STATUS

Developing guidelines concerning application of chemicals within the boundaries of the Keweenaw Bay Indian Community (including developing/studying other alternatives available, with chemical use to be considered a last resort).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓	✓	✓25%	2005	

Cooperatively working with outside experts to educate the Keweenaw Bay Indian Community about chemicals commonly used today.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	100%Chemical Application 0% Safe Handling 0% Funding Sources	Ongoing	

Identifying sources of chemical application and safe handling training and funding sources available to Tribal employees.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	33% (100% Chemical Application accomplished)	2004	

Developing monitoring program in cooperation with the KBIC Water Quality Department to evaluate effects upon KBIC water resources during chemical application projects currently occurring adjacent to KBIC lands.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2005	

AIR QUALITY MANAGEMENT

With its remote location, many assume that the Keweenaw Bay Indian Community's Reservation suffers little from the detrimental affects of poor regional air quality like an urban area might. Although this appears to be a logical conclusion, it is not yet backed up with scientific data. A full grasp of regional and global transport of pollutants is a science that has yet to be perfected.

The Michigan Department of Environmental Quality and US EPA have conducted only limited monitoring programs within the vicinity of the Reservation. With the highly industrialized areas of Duluth,

MN, Superior WI, and Thunder Bay, Ontario located up wind from the Reservation; the potential for detrimental concentrations of air pollutants needs to be consistently examined.

Another problem experienced on the Reservation is the result of pollution emitted from local sources. Although current problems are relatively minimal when compared to other areas, the potential for more problems in the future does exist. The fact that KBIC does not yet have federally enforceable air quality standards in place, or the means to implement them, may worsen the situation.

Benchmarks

Cooperate with other agencies to conduct an inventory of, and resolve concerns with, air pollution sources both on and off the Reservation that affect Tribal members and resources.

- Monitor pollutants of concern, with a particular focus on obtaining background levels of the six EPA listed "criteria pollutants".
- Based upon these background levels, formulate air quality regulations for the Reservation, as needed.
- Monitor indoor air for pollutants affecting human health.

Provide community education and advice regarding air quality concerns.

Impacts of Benchmarks

An inventory of air pollution sources will help identify possible pollutants of concern to monitor.

Background concentrations of various pollutants are required before stricter air quality standards can be implemented.

With EPA approved standards in place, industries both on and off the Reservation will be required to ensure their emissions do not cause the KBIC standards to be exceeded.

STATUS

Inventorying major air pollution sources, both on and off Reservation, which effect Tribal lands, people, and resources.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	Yes, initial process

Drafting enforceable air quality regulations for the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			Ongoing	

Monitoring both Indoor and outdoor air for various pollutants of concern. (Heavy metals, wood stoves and pursue funding.)

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Providing community education and advice in regards to air quality concerns and/or remedies. (Written materials).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	Completed

Coordinating with US EPA, or other agencies, to resolve air quality concerns.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	
	Relationship established			

HAZARDOUS WASTE MANAGEMENT

Hazardous wastes are substances that possess one or more of the four hazardous characteristics: Ignitability, corrosivity, reactivity, and toxicity. All substances deemed hazardous are classified and regulated as such by the US EPA through the Resource Conservation and Recovery Act (RCRA). Accordingly, the minimum rules and regulations for the manufacture, use, storage, and disposal of these substances are created and enforced by US EPA. Hazardous wastes most likely to affect the Reservation can be broken down into two categories: industrial and household hazardous wastes.

Industrial hazardous wastes entail a variety of substances used in many manufacturing facilities and small businesses located throughout the Reservation. The most current numbers from EPA indicate that there are 24 licensed hazardous waste generators on the L'Anse Reservation. These substances are tracked from cradle to grave, meaning a paperwork trail keeps track of the

exact inventories, use, and consumption of these substances. Monitoring and enforcement is provided for in cooperation with US EPA and the Michigan Department of Environmental Quality.



Household hazardous wastes include substances such as cleaning solvents, motor oils, and batteries. Improper storage, use, and disposal of these products are the major source of hazardous waste pollution on the Reservation. Lack of a convenient and economical disposal method for these substances may lead to environmental problems associated with household hazardous wastes.

Benchmarks

Cooperate with other agencies in identifying and monitoring licensed hazardous material handlers on and near the Reservation.

Provide viable alternatives to current household hazardous waste disposal methods.

Provide community education in regards to disposal methods for common household hazardous wastes.

Impacts of Benchmarks

Monitoring commercial hazardous materials handlers will ensure that hazardous wastes are properly consumed, stored, and disposed of.

A convenient method to dispose of hazardous materials will prevent contamination of the Tribe's resources.

Community education will inform residents of the detrimental effects of improper hazardous materials disposal methods, and suggest environmentally friendly alternatives.

STATUS

Identifying and cataloging existing or potential hazardous waste sites.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Determining current and potential environmental risks at hazardous waste sites.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Providing a convenient and economical household hazardous waste disposal method.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004 Ongoing	

Coordinating with EPA and State of Michigan for inspection of suspect hazardous waste facilities on the Reservation (as needed).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing Annual	

Coordinating with Baraga County to ensure emergency response plans are both adequate and up to date.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	100%		Updated annually

Monitoring any hazardous waste clean-up projects undertaken by the State of Michigan. Developing an information and education program to increase KBIC Reservation resident's awareness of hazardous waste.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓			Ongoing

Providing community education in the proper disposal of household hazardous materials.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓	✓		2003/2004 - Education Plan Ongoing	

STORAGE TANKS MANAGEMENT

Storage tanks are any tanks used for the purpose of temporary or long-term storage of fuel products. These tanks can be located either above or below the ground surface. Although tank design, installation, and leak detection methods have improved vastly in recent years, the potential to have a product leak still exists. Minimum regulations for the registration, design, installation, leak detection, corrosion protection, and maintenance of these tanks and associated piping are outlined in the Code of Federal Regulations and are

enforced on the Reservation through cooperation with US EPA and the Michigan Department of Environmental Quality. EPA standards enacted in 1988 have forced owners of underground tanks to comply with higher tank and monitoring method requirements, such as the utilization of double walled tanks, and the presence of leak detection equipment between these two walls. The most current numbers from US EPA indicate that there are currently 19 registered storage tanks located within the L'Anse Reservation.



Benchmarks

Identify and assess all underground storage tanks with a capacity greater than 500 gallons, and above ground storage tanks with a capacity greater than 250 gallons, on or adjacent to the Reservation, and determine if they meet EPA standards.

Comply with federal regulations for the installation, maintenance, and closure of all regulated storage tanks. Coordinate with other agencies to ensure compliance to these regulations.

Periodically inspect storage tanks on the Reservation to ensure installation and maintenance methods comply with EPA regulations. Develop a Tribal program to oversee the clean up of leaking storage tank sites.

Impacts of Benchmarks

Information such as: the number, contents, and age of tanks, will be better known by the Tribe.

Compliance with EPA regulations is required under federal law. With Tribal staff properly trained, KBIC would have a person locally available for monitoring and enforcement activities, and would not be forced to rely on EPA staff located in Chicago for these activities.

STATUS

Identifying and assessing all underground storage tanks with 500-gallon capacity or more on or adjacent to the Reservation, and determining if they meet EPA standards.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100% Ongoing		Done for known tanks – EPA & DEQ. List available.

Benchmarks

Develop and implement a complete underground and above ground storage tank program. The main focus would be to develop guidelines for installation and monitoring. The program would include: storage tank selection and closure planning, soil and ground water monitoring, and tank certification. Records of daily storage tank activities would be obtained on a regular basis from storage tank operators.

Soil and water contamination monitoring would be coordinated with the Water Quality Manager and other Reservation personnel.

Impacts of Benchmarks

This Benchmark would provide for the regulation of installation and maintenance of UST's and AGST's on the Reservation by the Tribe. All monitoring and certification would be performed by Reservation personnel or contracted services.

STATUS

Developing and implementing Tribal regulations for the installation, maintenance, and closure of all regulated storage tanks.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓	✓	0% (Currently seeking funding)	2008	

Benchmark

Partner and coordinate with other agencies to assure compliance with EPA standards and regulations.

Impact of Benchmark

The Tribe would have input into the enforcement of existing regulations concerning storage tanks on the Reservation.

STATUS

Coordinating with US EPA for inspection and/or enforcement of suspect UST's on the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

SOLID WASTE MANAGEMENT

As one of the most visible environmental problems, open dumping is indeed a concern of KBIC members. Open dump cleanup programs and the annual bulk waste 'spring cleanup' have helped, but the issue continues to be a problem.



The most likely cause of this problem is the lack of a convenient, inexpensive solid waste disposal alternative for those dumping on the Reservation. In addition, a lack of solid waste management codes and enforcement options compound the issue.

Peninsula Sanitation maintains the nearest designated landfill, located in Greenland, MI, approximately 30 miles west of the Reservation. The nearest transfer station is located approximately 30 miles to the north in Houghton, MI. Curbside service does not exist for many on the Reservation. The residents must haul their own solid waste to designated dumpsters, with a fee per bag. There is no solid waste management plan for the Reservation.

Benchmarks

Develop a solid waste management plan for the Reservation.

- Continue to identify solid waste dumpsites within Reservation boundaries.
- Set priorities for clean up of solid waste dumpsites based on protection of public health and risk to environment.
- Assist with administration of the cleanup of solid waste dumpsites in cooperation with other organizations.

Develop enforceable Tribal solid waste management codes; improve procedures of prosecuting persons who illegally dump solid waste.

Conduct a feasibility study regarding more convenient and affordable recycling and solid waste disposal methods.

Develop an educational program that outlines proper recycling and solid waste disposal options and the detrimental effects of illegal dumping.

Impacts of Benchmarks

A solid waste management plan will allow KBIC to plan for present and future solid waste needs.

Identifying open dumps will allow KBIC to monitor these areas, increase enforcement, and assess the impacts these sites may have upon the environment. Cleanup priorities can then be focused upon sites with the greatest human and environmental health impacts.

Development of solid waste codes will give KBIC a legal basis to prosecute those who pollute Tribal lands, and may also help prevent the accumulation of things such as numerous abandoned cars, etc., on any one site.

A feasibility study will be a useful tool in prioritizing which solid waste disposal options to utilize in the future.

An educational program will help increase the awareness of both Tribal and non-Tribal members in regards to the environmental, economic, and social impacts of open dumping.

STATUS

Identifying all solid waste dump sites within Reservation boundaries.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%	Ongoing Updated annually.	

Setting priorities for clean up of solid waste dumpsites based on protection of public health and risk to environment.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing - As funding permits	

Assisting with administration of the clean up of solid waste dumpsites in cooperation with other organizations.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50%	Ongoing as funding permits 2003	

Benchmark

Provide for the development and initiation of a solid waste clean-up program for the Reservation. This would include solid waste codes, affordable recycling and community education.

Impact of Benchmark

This Benchmark provides for the clean-up of illegal dumps throughout the Reservation.

STATUS

Developing enforceable Tribal solid waste management codes and improving procedures of prosecuting persons who illegally dump solid waste.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2005 Technical review/public forum	

Investigating the practicality of more convenient and affordable recycling and solid waste disposal methods.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50% Working with Village	2004	

Developing an educational program that outlines proper recycling and solid waste disposal options and the detrimental effects of illegal dumping.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	25%	2005 Ongoing	

CULTURAL

Goal: Protect cultural practices and resource sites on the Reservation and 1842 Ceded Territory.

CULTURAL RESOURCE MANAGEMENT

The Keweenaw Bay Indian Community includes the L'Anse and Ontonagon Indian Reservations, as well as other lands owned or held in trust within the western Upper Peninsula of Michigan.

KBIC maintains a strong bond with practices passed down from our Native American ancestors and the continuance of those traditions are a high priority for us. We aren't always aware of the cultural aspects of our day to day lives; but our culture, who we are, how we interact with others and where we originated, are reflected through our actions. These beliefs and practices may be termed as within ourselves or internal resources.

The obvious external cultural resources for KBIC are the burial grounds at Sand Point and traditional and modern cemeteries at Assinins and Indian Cemetery Road. Annual POW WOW activities, teachings and Harvest Feast are also demonstrations of our culture. However, our cultural sites exist at various other locations both on and off the reservation. These cultural sites may take many different forms such as gathering areas, fishing and hunting camps, wild rice beds, maple sugar bushes, cooking and living areas, etc. KBIC utilizes various cultural resources management techniques such as a Cultural Committee to inventory, monitor and handle situations which may harm or impact cultural resources.

Benchmark

Develop a database of known sites. Some limited protection efforts have been undertaken. No official regulatory authority has been assumed.

Impact of Benchmark

Information on known sites is being gathered in one central location. The issue of site protection has not been addressed.

Benchmark

Increase efforts to gather data on cultural site locations. Develop and implement Reservation Cultural Resource Protection Code. Hire Cultural Resource coordinator to implement goals and objectives.

Impact of Benchmark

Provide staff to develop and implement a plan to protect and preserve cultural resources on the Keweenaw Bay Indian Reservation.

STATUS

Acquiring funding to hire a full-time Cultural Resources Specialist.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004/Ongoing	

Developing a Federally approved Tribal Historic Preservation Office.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004/Ongoing	

Developing a Cultural Resources Management Plan for KBIC.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003/Ongoing	

FISHERIES

Goal: Facilitate sustainable harvest of fisheries resources within Lake Superior and 1842 Ceded Territory for Tribal members.

FISHERIES RESOURCE MANAGEMENT

Our traditional territory is composed of several hundred inland lakes and thousands of miles of rivers, streams, and creeks. The area is also adjacent to Lake Superior and borders with a few hundred miles of shoreline. The Keweenaw Bay Indian Community (KBIC) licenses approximately 20 Tribal members who commercially fish the waters of Lake Superior and annually harvest 200,000 lbs of fish. Over 700 Tribal members are also annually licensed to harvest fish through subsistence and sport avenues in the western Upper Peninsula.

The fisheries of this region are diverse and contain the following major native species: lake trout, lake whitefish, lake herring, brook trout, lake sturgeon, walleye, northern pike, smallmouth bass, yellow perch, largemouth bass, bluegill, white crappie, black crappie, bullhead species. The following introduced species are also important resources: brown trout, rainbow trout, Chinook salmon, and coho salmon.



KBIC utilizes its Natural Resources Department to manage their hatchery. KBIC has operated a fish hatchery on the L'Anse Indian Reservation since 1989. That program expanded to its present location in Pequaming in 1993. This hatchery has 11 raceways in two buildings capable of rearing 100,000 lake and brook trout yearlings (7-8") annually. The hatchery receives its water source from 3 production wells capable of delivering 900 gallons per minute into the raceways.

The Keweenaw Bay Natural Resources Department (KBNRD") has utilized fishery assessments at several locations since 1989 to provide appropriate fishery recommendations to the Tribal Council. These assessments are supported by the Great Lakes Indian Fish and Wildlife Commission, U.S. Fish and Wildlife Service, Ottawa National Forest, and Michigan Department of Natural Resources. The Tribal Council has adopted three 5-year management plans (1990, 1995, 2000) to manage their Lake Superior commercial fisheries. The Council has adopted a subsistence sport fishing code to regulate those interests as well.

The KBNRD has stocked western Upper Peninsula lakes and streams annually since 1990. The KBNRD staff have stocked over 800,000 lake trout yearlings (7-8") into Keweenaw and Huron Bays of Lake Superior, and have also stocked over 200,000 brook trout of various life history stages (fry to adult) into the Upper Peninsula

in cooperation with the U.S. Fish and Wildlife Service, Ottawa National Forest, and Michigan Department of Natural Resources.

KBIC has developed a wild brook trout strain from the Jumbo River in southern Houghton county. This river is a tributary to the east branch of the Ontonagon River. The Jumbo River trout were selected as a hardy native fish population. Broodstock or adult fish are kept and fingerlings (2-4") are also reared at our hatchery. KBIC obtains fertilized lake trout eggs that are reared to yearling size.

KBIC has provided an isolation hatchery arrangement for the U.S. Fish and Wildlife Service (Service) since 1995. We have raised and isolated wild strains of brook and lake trout for the Service through biennial agreements. These agreements protect the national fish hatchery system from potential wild fish diseases and genetically bolster the national hatchery system. Most recently, the Michigan Department of Natural Resources has also

asked KBIC to isolate wild lake trout for their programs.



The Keweenaw Bay Indian Fish Hatchery is vital to providing a sustainable fishery for the sport and commercial interests of all those who enjoy and profit from the fishing of the Keweenaw Bay Indian Community. Without the capacity to produce adequate numbers of fingerling and yearling trout for stocking annually, KBIC is unable to protect its vested interest in the Upper Peninsula's fisheries. In addition, fishery assessments and regular reports to the Tribal Council ensure sustainable fisheries for all concerned.

Benchmarks

Stock annually 100,000 lake trout yearlings into Keweenaw and Huron Bays. Stock annually 40,000 brook trout fingerlings into western Upper Peninsula streams. Stock annually 50,000 walleye fingerlings into western Upper Peninsula inland lakes.

Develop a biologically sound management plan for all 1842 ceded waters of Lake Superior and applicable inland lakes and streams by 2005 and 2010.

Conduct stream biological surveys on each watershed every 3-5 years. Conduct fishery surveys for lakes on the Reservation every 3-5 years. Coordinate off-Reservation stream and lake surveys with Ottawa National Forest, MDNR, USFWS, and related researchers.

Conduct annual assessments on Lake Superior according to the protocol outlined in the Great Lakes Fishery Commission's (GLFC) Lake Trout Restoration Plan. Conduct other Lake Superior assessments as dictated by GLFC Lake Superior Technical Committee.

➤ Gather periodic data from commercial fishermen to assist in management of that fishery.

- Maintain all fishery data into a computer database and compile applicable findings into annual reports.
- Improve and/or maintain fishery habitat for the benefit of native species.

Impacts of Benchmarks

Sustained stocking will yield more fish for the benefit of all concerned.

A 5-year biologically sound management plan for 1842 Ceded waters of Lake Superior in Michigan will enable the Tribal Council to maintain a sustainable fishery.

Lake Superior and Inland fishery assessments will document changes in fish communities and provide data for the Tribal Council to make better-informed decisions.

Catch report and monitoring data from commercial fishermen will enable the Council to make pertinent management decisions.

A computer database and reports will better inform the Council and Community on our fishery resources and other management activities.

Improved fish habitat will sustain native fish communities in the Lake Superior in Michigan region.

STATUS

Formulating and adopting 5-year management plans (2005 and 2010) for the 1842 ceded waters of Lake Superior in Michigan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%	Ongoing	✓

Performing periodic biological surveys on watersheds impacting the Reservation and developing management plans addressing watershed needs.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		50% Developing	Ongoing	✓

Stocking genetically diverse and disease free hatchery fish into water bodies as deemed appropriate by the management plans and agreements.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%	Ongoing	

Assessing fishery stocks in Lake Superior in Michigan according to Great Lakes Fishery Commission protocols.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100% Yearly	Ongoing	

WILD RICE AND NATIVE PLANTS

Goal: Manage and expand Reservation wild rice stands and culturally significant plants to sustain the Anishinaabe lifeways of Tribal members.

WILD RICE AND NATIVE PLANTS MANAGEMENT

The Keweenaw Bay Indian Community's (KBIC's) gathering rights are protected under the Treaty of 1842. Tribal members wishing to exercise their Treaty rights near other Reservations obtain approval from that Reservation. Also, there is a memorandum of understanding between the Keweenaw Bay Indian Community and the Ottawa National Forest to facilitate gathering within the Ottawa National Forest boundaries. Pertinent Rules and regulations are updated yearly for protection and utilization of native plants.



Traditionally, gathering done by the Ojibwa people has been for food, ceremony, pharmaceutical, dyes, tools, construction, and basketry (White Earth IRMP, November 1994). New developments have resulted in many substitutes to replace these traditional native plants. However, many Ojibwa people continue to harvest and use native plants in the traditional manner.

Currently, some of the native plants are being used commercially or have the potential for commercial use. Many Tribal members harvest traditional foods for personal use, and, a few sell them; maple syrup, wild rice, and berries (blueberry, cranberry, and raspberry). Ojibwa woodland artwork utilizes many of the native plants; black ash, sweet grass, red willow, balsam needles, and birch bark are a few. Personal and commercial use comes from this art. Also, Christmas trees and balsam boughs are utilized by Tribal members.

The potential for expansion is being encouraged in several ways. The Tribe has started a low interest business loan program, hired an economic developer, and is committed to expanding its land base. Also, the Ojibwa Community College started small business classes in 2001 to help interested Tribal members.

Practitioners of traditional medicine are active on the Reservation. There are traditional medicine gatherers and a clinic that regularly visits the people of the Reservation. There are many native plants used for ceremonies by Tribal people. The Great Lakes Ojibwa are often called the "cedar people" for the significance this plant has in our lives. Some of the other sacred plants include; tobacco, sage, and sweet grass. However, the naming and identifying of harvest locations of medicines remains a very sensitive issue.

Identification of native plants is being facilitated in several ways. A guide was made by the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to provide a scientific document for ethno-botanical use and gives a glimpse into the breadth and depth of Indian knowledge and use (Plants Used by The Great Lakes Ojibwa, 1993). 384 plants used by the Great Lakes Ojibwa are listed with some of their traditional uses, habitats, and descriptions, as well as their Anishinaabe and scientific names. GLIFWC provided this book, along with continuing technical assistance, to Keweenaw Bay Natural Resources Department (KBNRD). KBNRD has held two workshops for native plants; a wild rice workshop in 2001, a third wetlands workshop in August 2002, and a sensitive plant workshop in 2002. Also, in 2001, a two-year plant study was initiated on the Reservation. The plant study involved a plant inventory and interviews of Tribal members. This plant study will help KBNRD management by providing a list of native plants significant to this Tribe and identify sensitive areas on the Reservation that can be protected.

KBNRD uses material provided at technical meetings on exotic invasive plants and control methods. Also, GLIFWC provides funding, supplies, and technical assistance. In 1999, purple loosestrife was identified on the Reservation. In 2000, a purple loosestrife inventory was conducted on the Reservation with funding provided by GLIFWC. In 2001, a plan was initiated to control purple loosestrife thru a combination of manual picking and biological control by *Galerucella* beetle. GLIFWC has also provided KBNRD with herbicides but there is no plan of using these at this time.

There has been concern about disappearance, availability, and location

of native plants on the L'Anse Indian Reservation. In 1991, the Keweenaw Bay Natural Resources Department (KBNRD) began to seed wild rice on three of its lakes. It was able to receive monies thru a Bureau of Indian Affairs sponsored cooperative program entitled "Circle of Flight" to do this. The Tribe has continued to receive money yearly from this program for seeding. KBNRD's two-fold objective through seeding is for waterfowl utilization and Tribal harvest. In 1999, Tribal members began wild rice harvesting. In 2001, Robillard Impoundment was created and seeded with wild rice.



Several times in the past, GLIFWC has brought over sweet grass plugs to be distributed to Tribal members to start gardens. In 2002, United States Department of Agriculture (USDA-NRCS) thru its Plant Science Center, initiated contact with the Tribe for the propagation of culturally and medicinally significant plants. An MOA was signed in 2002 (August 29th) to facilitate a working relationship between the two entities. USDA-NRCS is provided with a list of native plants desired by Tribal members and uses their resources to grow these plants to seedling size and bring them to the Reservation for propagation. Also,

the Ojibwa Community College is working on starting community gardens.

KBIC recognizes the importance of maintaining a diversity of habitat in management in order to maintain a diverse

supply of native plants. KBNRD continues to work with Tribal members, the Tribal Council, and multi-agencies in order to protect gathering capability for future generations of Tribal members.

Benchmarks

Develop an inventory of culturally significant plants on the Reservation.

Develop a culturally significant plant management plan.

- Create a list of culturally significant native plants, which Tribal members would like to have on the Reservation.
- Establish a source of culturally significant native plants from which Tribal members can take starter plants.
- Encourage native plant use among Tribal members, personal and business.
- Provide information on alternative medicinal practices and possibly establish regular clinic hours.

Impacts of Benchmarks

A collection of elder interviews about native plants will be gathered and preserved. These interviews will serve as a basis for a scientific survey of the Reservation for locations and quantities of culturally significant native plants. The survey will be accomplished with the help of traditional medicinal Practitioners and the G.L.I.F.W.C. guide.

A management plan will be developed based on the findings of the native plants inventory. Also, on and off-Reservation management plans already in place (B.I.A. and U.S. Forest Service) will be respected and worked with.

Currently, many people may not know what is available on and off the Reservation. By making the management plans for native plants available to Tribal members, this will encourage usage by Tribal members.

Giving information on traditional medicinal practices would provide Tribal members with a valuable service. The establishment of regular clinic hours would be a convenience for Tribal members and allow more usage of this practice.

A sign-up list for native plants will be available to Tribal members on an annual basis.

Provide Tribal members with starter plugs of requested native plants that they can use to start their own patches. Starters can come from the Plant Science Center/USDA-NRCS, a future community garden to be established by the Ojibwa Community College, or annual plant sales/distributions thru the Tribal Conservation District.

STATUS

Inventorying culturally significant plants on the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	100%	2003	

Developing a culturally significant plant management plan for the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004	

Promoting native plant use on the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50%		Ongoing

Benchmarks

Establish an inventory of exotic invasive plants on the Reservation.

Establish control plans to minimize exotic invasive plants on the Reservation.

Impacts of Benchmarks

Continued monitoring of purple loosestrife areas identified in KBNRD's purple loosestrife survey. Annual use of exotic invasive plant guide during established fieldwork season to identify new exotics.

Continue using control methods established by KBNRD with the help of the Great Lakes Indian, Fish & Wildlife Commission. Create control plans for exotic invasive plants with the technical support of the Great Lakes Indian, Fish & Wildlife Commission.

STATUS

Developing control plans for exotic invasive plant species on the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004	

Benchmarks

Develop and establish a Wild Rice Plan that includes:

- Reseeding wild rice on selected areas.
- Conducting annual surveys of rice bed productivity and monitor wild rice lake and stream systems.

- Actively managing wild rice lakes to promote increased production. Develop a limited number of wild rice lake management plans to enhance the natural wild rice production while protecting the rice bed ecosystem.
- Constructing and maintaining water control structures on drainage affecting seasonal water levels and possibly utilizing aquatic weed harvester on a limited number of important wild rice beds.
- Improving access on selected lakes.
- Encouraging natural or human use processes to manage wild rice beds.

Impacts of Benchmarks

Reseeding of wild rice on selected areas would improve waterfowl habitat and give back to the Tribal members a culturally important crop.

Annual surveys of rice productivity and monitoring of lake and stream systems would give important background data, which can be used in formulating a management plan.

Through the use of our background data, technical assistance from the Great Lakes Indian, Fish & Wildlife Commission, and related scientific papers, management plans for inland and slough wild rice beds will be developed.

Seasonal manipulation of water control structures would allow water levels to be fluctuated. The use of an aquatic weed harvester would limit competition. These would help provide optimum growing habitat for wild rice.

On wild rice lakes where access is poor, man-made improvements will be constructed and maintained to allow accessibility to Tribal members while keeping in mind the importance of protection of the lake ecosystem. Improvements may consist of docks, limited clearing of trails and vegetation, and road improvements. Also, property access is obtained thru Tribal, Village, or Private entities.

On established wild rice beds, wildlife usage is documented in annual surveys. Nesting habitat is provided for waterfowl. Wild rice chiefs, appointed by the Tribal Council, coordinate and manage harvests, which will be beneficial to the wild rice ecosystem.

STATUS

Developing a wild rice management plan for the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50%	2004	

Developing Community Farm/Gardens for education and plant preservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2003	

WILDLIFE

Goal: Maintain and/or increase biologically diverse wildlife populations on the Reservation and 1842 ceded territory, and provide sustainable harvests of game species for Tribal members.

WILDLIFE MANAGEMENT

The traditional areas of the Keweenaw Bay Indian Community (KBIC) support a diverse variety of wildlife habitats and species. The Ojibwa people are committed to protecting the wildlife resources of the area, while simultaneously protecting and enhancing opportunities for Tribal members to exercise wildlife harvesting rights, as well as to observe and enjoy non-game wildlife species.

Over 700 Tribal members obtain annual licenses to hunt and trap game and furbearer species. The (KBNRD) believes it is important to assess hunting and trapping activities of Tribal members in order to better manage the resource. Triennial deer/bear hunting and furbearer trapping surveys are distributed to licensed Tribal hunters and trappers. The data collected from the surveys are used to estimate total hunting/trapping effort and harvest and to document and assess concerns and comments from Tribal wildlife harvesters. These efforts will, in turn, assist KBNRD staff and Tribal leadership in updating Tribal hunting and trapping regulations to assure sustained harvest of wildlife.

In addition to game species management, the KBNRD is interested in developing a strategy to protect non-game wildlife species on and near the Reservation. The development of a protected animal ordinance for the Reservation, listing species recognized by the U.S. Fish and Wildlife

Service as being threatened or endangered, will further protect sensitive species found in the Keweenaw Bay region.

The KBNRD works closely with the U.S. Fish and Wildlife Service, the Michigan Department of Natural Resources, and the Ottawa National Forest (U.S. Forest Service) in monitoring populations of bald eagles, timber wolves, trumpeter swans, fisher, and other species on and near the Reservation.



Efforts in re-establishing populations of rare wildlife species that are or once were native to the region have been made by KBNRD in recent years as well. In particular, trumpeter swans have been reintroduced to waters on and near the Reservation, with assistance from the Bureau of Indian Affairs (BIA) "Circle of Flight" program, and survival and migratory behavior of KBNRD tagged swans has been monitored through radio-telemetric tracking

and observations by the public. The KBNRD will continue to study these birds and explore options for performing similar activities with other species in the future.

Surveying and managing waterfowl populations in the area has been a KBIC priority for nearly a decade. Funds from “Circle of Flight” are used to monitor and index waterfowl populations and migrations, construct, install and monitor nestboxes for wood ducks and other cavity nesting species, and plant wild rice for Tribal harvest as well as waterfowl forage. Additionally, KBNRD staff assists local and regional agencies (i.e. U.S. Fish and Wildlife Service, Michigan Department of Natural Resources, etc.) by performing surveys which focus on monitoring populations of non-game wildlife. Annual population surveys of sandhill cranes and amphibians are performed on and near the KBIC Reservation.

With growing concern over the potential impacts of diseases on local wildlife (and potentially human) populations, the KBNRD has taken steps to assist other agencies (e.g., MDNR, GLIFWC) in monitoring for disease outbreaks in the western Upper Peninsula. In particular, whitetail deer samples have been collected on and near the KBIC Reservation to be tested for Chronic Wasting Disease (CWD). KBNRD staff anticipates expanding disease monitoring efforts in the future, and intends to continue cooperative efforts with other agencies in testing for CWD and other diseases of concern.

The KBNRD is involved with several projects that are aimed to protect, restore and maintain wildlife populations. All are important in strengthening the condition of wildlife populations, and will continue in the future with the continued support of other agencies and the Ojibwa people.

Benchmarks

Wildlife management practices will continue to be coordinated by the KBNRD Program Director and staff, and in certain instances will be performed in cooperation with various state and federal agencies. Projects will include several aspects of wildlife management, including:

- Monitoring game populations
- Monitoring harvest levels
- Protecting threatened, endangered and culturally sensitive species
- Protecting and/or enhancing various wildlife habitats.

The KBNRD will continue to monitor game harvest through surveying Tribal hunting and trapping license holders triennially. Tribal members (hunters and trappers) will be asked additional questions regarding waterfowl, small game, non-game and/or culturally sensitive species. Various wildlife census surveys will be conducted and analyzed to monitor populations of both game and non-game species. These will include migratory bird surveys, nest box usage studies, and amphibian census. Data obtained from Tribal surveys and

KBNRD assessments will be used in updating Tribal hunting and trapping regulations, and will ultimately allow sustained harvest of game species.

Impacts of Benchmarks

Current KBNRD wildlife population census effort would be maintained, and information obtained from Tribal hunter and trapper surveys would cover a widened variety of wildlife management issues.

STATUS

Conducting periodic (triennial) wildlife, hunting and trapping mail-in surveys of Tribal members.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing 2004	

Updating hunting and trapping regulations to allow sustained harvest of game species.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			Ongoing Annual	

Benchmark

The KBNRD will develop a protected animal ordinance for the Reservation, listing threatened and endangered species and detailing special management considerations for these organisms.

Impact of Benchmark

Managing wildlife populations on and near-Reservation would diversify and include aspects of maintaining safe harvest levels of game species as well as more closely monitoring and protecting non-game and/or culturally sensitive species.

STATUS

Developing a protected wildlife ordinance for the KBIC Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2004	

Benchmark

Wetland acquisition, creation and/or restoration projects will continue to be implemented. Other habitat improvement efforts, including installing waterfowl nesting structures and seeding with wild rice and/or other natural and beneficial food sources will also continue.

Enhancement of upland game species habitats on and near the KBIC Reservation would also be implemented through selective timber harvesting, prescription burning regimes, creating food plots, etc.

Impacts of Benchmark

Wetland/waterfowl habitat creation and/or improvement projects would continue to expand, with 10-40 acres of wetlands created/improved and 3-12 nest boxes installed annually. Upland game species habitat enhancement projects would be initiated.

STATUS

Creating and enhancing wetland/waterfowl habitats.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Creating and enhancing upland game species habitats.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			Ongoing	

Benchmark

Wildlife disease monitoring efforts will be made on and near the KBIC Reservation. KBNRD will cooperate with other agencies in testing for diseases that have high potential to detrimentally impact local wildlife (and possibly human) populations.

Impact of Benchmark

Tribal wildlife management practices will be further broadened to encompass population health monitoring.

STATUS

Monitoring on and near Reservation wildlife for diseases.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing Annual	

WETLANDS

Goal: Protect wetlands from degradation within the Reservation.

WETLANDS MANAGEMENT

Wetlands are an integral part of a water resource because they often represent the transition from terrestrial to aquatic systems. "The U.S. Army Corps of Engineers Federal Register 1982 and the EPA [U.S. Environmental Protection Agency] Federal Register 1980 jointly define wetlands as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." (Corps of Engineers,

Wetlands Delineation Manual). The Keweenaw Bay Indian Community is drained by several creeks and drainage ditches, which flow to Keweenaw and Huron Bays. The approximately 3,000 acres of wetlands consist of numerous small wetlands, pond edges and lake borders in the community. The wetlands on the Reservation have been identified and delineated in a management plan drafted by Scott Wieting (Inter-Tribal Council of Michigan). The Keweenaw Bay Indian Community and adjoining stakeholders must monitor for further degradation of their wetland areas, as well as adopt an appropriate management plan.

Benchmark

Current plans include continuation of wildlife population monitoring, wetland acquisition, and habitat restoration and improvement projects. The main emphasis will be on wetland dependent species.

Consideration for wetlands will be incorporated into all forestry and agriculture management plans.

Impact of Benchmarks

Waterfowl population census activities will remain at current levels.

STATUS

Developing a mitigation policy that is more stringent than those established by the state and federal governments.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

Establishing a strong Tribal policy that monitors wetland mitigation for compliance with applicable regulations and the achievement of the objectives within the approved mitigation plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

Establishing a specific Tribal designation which offers heightened protection of wetlands that harbor rare or endangered species, or provides crucial habitat for culturally important and/or endangered species, or provides crucial habitat for culturally important and/or endangered and threatened species.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

Benchmark

Wetland acquisition, restoration, and creation efforts would be greatly expanded and increased emphasis would be placed on inventorying and monitoring wetlands within the Reservation.

Impacts of Benchmarks

Wetland restoration projects would be increased to provide up to 100 acres per year of additional wetlands.

These activities would greatly enhance productivity and abundance of wetland wildlife species on the Reservation. The establishment of special management will allow for more efficient restoration and maintenance activities. Rare and unique wetlands would be protected.

STATUS

Inventory wetlands for exotic species and develop a management plan to address the proliferation of these nuisance species if determined to be necessary.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

Developing site-specific wetland quality criteria for use in the evaluation, monitoring and managing of wetlands.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

FORESTRY

Goal: Insure sustainable utilization of all timber and non-timber forest resources for Tribal members, and continue sustainability for forest health, timber quality, and forest diversity while protecting water resources, wildlife habitat, and culturally sensitive areas on the Reservation.

FORESTRY MANAGEMENT

Located within the north-central region of Michigan's Upper Peninsula, the Keweenaw Bay Indian Community is composed of a variety of forest cover types and tree species. The primary type is Northern Hardwoods, with mixed aspen cover types second. The forest is currently made up of trees all about the same age, since most timber stands originated around 1930. This was a period of time in which the Reservation experienced heavy logging, followed by broad, intense wildfires.

Through the use of sustainable forest management methods, future KBIC generations can be guaranteed excellent forest health, timber quality, and forest diversity while protecting water resources, wildlife habitat, and culturally sensitive areas on the Reservation. KBIC has taken the first step in this process, by developing a Forest

Management Plan (FMP) in 1997, which has identified the proper measures to be taken while managing the Tribal forest. By building upon the methodology established in the FMP, KBIC Natural Resource managers with the Tribal Council can continue to work toward objectives that will meet the goal of the Tribe's future forest resources.



Benchmark

Harvest timber under sustained yield and even flow management. Inventory and maintain database on approximately 14,000 acres of forest land. Develop annual harvest plans and forest development projects. Prepare timber sales and develop silvi-cultural plans for timber stands. Administer and supervise time sale and forest development contracts. Collect stumpage payments and scale forest products. Provide administration for fuelwood permits and investigate timber trespass cases. Provide secondary wildfire suppression response to the local DNR Forestry office. Continue coordination of wildlife habitat management with Natural Resources Committee and Reservation wildlife biologist.

Impact of Benchmark

Benchmark provides for the general administration of sustained yield management for the Reservation forests.

STATUS

Protecting and enhancing the health, productivity, quality, and diversity of the Tribal forest ecosystem.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%		✓

Identifying and protecting all "sensitive" areas (i.e., cultural resources, threatened and endangered plant and animal species habitats within designated timber management areas).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50%	2004	

Producing revenue and employment opportunities for Tribal members through the harvesting and utilization of forest products.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Protecting water resources through the implementation of Best Management Practices for harvesting operations and road development.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%	1997 Reference Plan	✓ (Plan on file)

Identifying and protecting forest areas with recreational opportunities.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	25%	2005	

FIRE MANAGEMENT

The Keweenaw Bay Indian Community's Tribal forest resource appears to consist of one that apparently is absent of all fire activity. This is not true, since a closer examination of any stand on the Reservation would reveal that fire has played an important role in the development of today's forest. It has only been over the last 50-60 years that fire has been aggressively suppressed from the natural landscape. Pre-settlement forests were dynamic ecosystems where succession was periodically set back by fire and windstorms. In addition, Native Americans were frequently the ones starting some of these fires in areas where they wanted to manage for favorable vegetation types.

Today, the Reservation consists of only a small amount of fire-related forest cover-types. Since the advent of a successful fire prevention campaign, much of the Tribal forest has had an increase in the amount of "climax" tree species such as Sugar maple, and Hemlock. At the same time, the Reservation has seen a decrease in the amount of successful regeneration of fire-related tree species such as Jack Pine, Red Pine, and Paper Birch. It is now to the point that if a fire were to occur in the Tribal hardwood forest, catastrophic stand losses would result.

Benchmarks

Develop a "Fire Management Plan" for the Keweenaw Bay Indian Community. This will include, but not be limited to: prescribed burning, debris burning, and hazardous fuels reduction. The Plan must meet the criteria established by the National Interagency Fire Center (NIFC) to access fire management program funds annually.

Continue supporting the actions of the KBIC Tribal Council in the development of a Tribal Wildland Firefighting Crew. This will require development of training schedules, physical

The Bureau of Indian Affairs is responsible for wildland fire control on the Trust lands on the L'Anse Reservation. The BIA provides funding for the maintenance of a "Cooperative Agreement" with the Michigan Department of Natural Resources, for the initial protection of all Indian Trust lands within the state, and all associated fire suppression activities and costs undertaken by the MDNR when fires do occur. In addition, the Keweenaw Bay Tribal Council has taken steps forward to create a "Tribal Wildland Firefighting Crew", consisting of members of the Keweenaw Bay Indian Community, who will provide support for fire fighting activities on and off of the Reservation.

Current Fire Management Plans do not address any type of prescribed burning as a management tool. Other miscellaneous burning of debris (burn-barrels, brush piles, etc.) are covered under the "KBIC Burn Permitting Policy". As implementation of the new "National Fire Plan" gets underway, there will be new and expanded opportunities for the Tribe to incorporate fire as a management tool on the Reservation.

fitness testing, equipment acquisition and storage, and meeting national qualifications for firefighting resources. The Tribe should decide what "scale" they want to fight fire (i.e., Type 1 or 2 crew, single resources, Type 6 engine, etc.). Once this is in place, the Tribe will have the support needed to implement other fire management activities on and off of the Reservation.

Impacts of Benchmarks

Continued support of the benchmark, identified above, will allow the KBIC to be more self-sufficient in the decisions it makes when utilizing fire as a management tool on the Reservation, by having the technical, staffing, equipment, and technical and monetary support it is currently lacking in the area of fire use. This is a direction the Tribe has been very interested in going towards, since fire has been historically used by Native Americans for generations. This is reflected in the community's heightened interest in conducting such activities as gathering of food and medicinal plants, on and off of the Reservation.

STATUS

Developing a Fire Management Plan for the Keweenaw Bay Indian Community

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003	

Developing a "Keweenaw Bay Wildland Fire Crew".

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	75%	2003	

ENFORCEMENT

Goal: Enhance the regulation, compliance and enforcement policies of KBIC to protect the natural resources of the Reservation and traditional Anishinaabe lifeways.

ENFORCEMENT MANAGEMENT

The territorial jurisdiction of the Keweenaw Bay Indian Community (KBIC) includes all lands within the exterior boundaries of the L'Anse Federal Indian Reservation and all lands held in trust for the Tribe by the United States of America. Further, the KBIC is what is commonly referred to as a Treaty Tribe, meaning that the Tribe has retained certain rights within a particular territory that may be exercised and regulated by the Tribe. Pursuant to the Treaty of 1854 with the Lake Superior Chippewa, the Tribe retains territorial jurisdiction over all ceded territory, as defined by this Treaty, that is traditionally the territory of the KBIC for the purposes of hunting, fishing, trapping and gathering. The KBIC exercises civil jurisdiction over all actions which arise where personal jurisdiction is held over one party and arise within the territorial jurisdiction of the Court. Civil jurisdiction over non-Indians is a complex issue. In *U.S. v. Montana*, the United States Supreme Court announced a general rule that, in the absence of a specific delegation of Tribal authority by Treaty or statute, Indian Tribes lack civil authority over the conduct of non-members on non-Indian land within a Reservation with two exceptions. First, a Tribe may regulate through taxation, licensing, or other means, the activities of non-members who enter consensual relationships with the Tribe or its

members such as commercial dealings, contracts, leases, and other arrangements. Secondly, Tribes also retain inherent power to exercise civil authority over the conduct of non-Indians on fee lands within its Reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, or the health and welfare of the Tribe.

Unquestionably, the Keweenaw Bay Indian Community has an inherent interest in the protection and promotion of the health, safety and welfare of its people. The KBIC is concerned with the development and implementation of laws and regulations that protect Tribal resources and the quality of life for future generations. The KBIC considers it unconditional that the L'Anse Federal Indian Reservation and the lands created by the Treaty of 1842 are forever the territory of the Keweenaw Bay Indian Community, and, an adulteration of this environment or an ungoverned use of its resources has the potential to cause serious harm to the Tribe.

The KBIC holds the authority to regulate, advise, and consult non-Indian entities to protect Tribal resources, as well as the absolute authority to regulate Indians within the same.

Benchmarks

Continued development, implementation and enforcement of the following codes:

1. Environmental Health
2. Pesticide Control
3. Water Quality
4. Wetlands Protection
5. Solid Waste
6. Lakeshore Protection and Sediment control/ erosion
7. Underground and Above-Ground Storage Tank Rules & Regulations
8. Air Quality
9. Water and Sewer
10. Land Use Permitting
11. Fish, Wildlife and Plants (Conservation Enforcement)

Impacts of Benchmarks

Streamline of permitting and regulatory processes

Protect resources that are culturally, environmentally or historically sensitive.

Ensures, through regulation, that Tribal resources are available for future generations.

Promotes and preserves, through regulation, the unique Indian character that is the identity and culture of the L'Anse Indian Reservation as the Tribe's permanent homeland.

STATUS

Reviewing Tribal code and regulations annually to protect the Natural Resources of KBIC.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Developing new environmental protection codes.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Establishing a Tribal Conservation District within the L'Anse Indian Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%		2002

Establishing land use management ordinances.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2004	

Expanding upon rules and regulations within the Conservation Enforcement Code, in conjunction with Tribal attorneys, Tribal Court, Natural Resources Committee and the Tribal Council.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		Annual	Ongoing	

RECREATION

Goal: Establish a recreation and tourism program that both supports economic growth and development on the L'Anse Indian Reservation and protects the integrity of the culture and tradition of the Anishinaabe lifeways of KBIC.

RECREATION MANAGEMENT

KBIC's most valuable assets are the recreational opportunities we enjoy in this remote area along Lake Superior. Tribal members participate in various recreational activities including: hunting, fishing, hiking, swimming, boating, skiing, and snowmobiling in the western Upper Peninsula. Other areas are managed cooperatively such as cross ski trails around the Pinery Lakes and snowmobile trails.

One of our most important recreational features is Sand Point. This area contains a marina, campground, lighthouse, beaches, watercross ponds, wild rice beds, and burial grounds. Unfortunately, over the 2

miles of beach frontage contains stamp sand from a 20th century copper stamping mill that was located in Keweenaw Bay. In 2001, we received an EPA grant to focus on the clean-up of those sands and further development of that property recreational utilization.

The existence of our Casinos and Sand Point require that we promote tourism to support our businesses. We should maintain our involvement in the Baraga County Tourist Association. The management of recreational activities involves a proper balance of resources to the benefit of all user groups.

Benchmarks

Protection and development of recreational opportunities on and off the L'Anse Reservation

Inventory and develop plans for all recreational areas

Hire adequate staff to properly maintain and market our recreation resources

Impacts of Benchmarks-

Sustained use of recreational opportunities

Increased tourism and profitability of Tribal businesses

A better quality of life associated with relaxation and enjoyment of our environment

STATUS

Establishing a Recreation/Tourism task force/committee/board to advise and oversee activities related to recreation and tourism.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2002	

Collaborating with village, township, and county agencies and organizations to incorporate Tribal plans with non-Tribal planning processes.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓ - Not formally		Ongoing	

Assessing recreational opportunities on the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	50%		

Developing a tourism marketing plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2010	

Developing a recreation plan for the Reservation, including areas for development such as Sand Point.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003	

Collaborating with regional organizations and agencies that promote and develop recreation/tourism activities.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓ - Need plan		Ongoing	

ECONOMIC DEVELOPMENT

Goal: Establish a Comprehensive Economic Development Strategy (CEDS) for KBIC that fosters diversified economic growth and security, supports Tribal member employment and Tribal enterprise expansion, and strengthens Tribal sovereignty.

Economic Development Management

The Keweenaw Bay Indian Community has set a course to bring economic development to the Reservation. In January 2001 the Tribal Council created the planning and development office to foster economic growth on and off the Reservation. A key goal of our planning and development professionals is the development of our Ojibway Industrial Park. The Ojibway Industrial Park, located on M-38 and on the L'Anse Federal Reservation lands, has 130 acres platted with 237 additional acres. Existing business and industry located at the Industrial Park include the USDA, Great Lakes Indian Fish & Wildlife Commission, and Tire Foaming/Flat Proofing. There are

electric, telephone and gas utilities on-site. Extension of the Village of Baraga sewer and water service to the Industrial Park will take place in 2003. When successfully completed, the Ojibway Industrial Park will be a more viable location for business and industry to locate within Baraga County. Improved infrastructure will not only provide water for operation, but for fire protection as well. Lease agreements are presently negotiated on an individual basis. A manual of related documentation, including business codes and ordinances, zoning, environmental regulations, model lease agreements and dispute resolution procedures are being considered for future availability.

Benchmark

Implement the Keweenaw Bay Indian Community Tribal Development Corporation utilizing KBIC Planning & Development staff to review and revise Corporation charter. The KBIC Tribal Development Corporation was chartered in May of 1985 by resolution of the Keweenaw Bay Tribal Council.

Impacts of Benchmark

Activation of the Development Corporation will establish, as identified in the plan, a planning and development committee/board to advise and oversee economic and development activities. The corporate board of directors will bring the business expertise and focus necessary for the creation of a business atmosphere conducive to economic growth and diversification. The board of directors will play an integral role in developing an economic development strategy as well as development of the business infrastructure critical for economic expansion, including commercial codes, model leases and a dispute resolution process.

STATUS

Establishing a planning and development committee/board to advise and oversee economic development activities.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		10%	2004	

Developing a Comprehensive Economic Development Strategy (CEDS), and develop the necessary legal documentation for Tribal, non-Tribal and government business/industry to locate on the Reservation (including codes, ordinances, dispute resolution agreement and model lease agreements).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		10%	2006	

Establishing a small business development program, along with a Tribal Business Information Center (TBIC).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	70%	2002	✓

Expanding or enhancing Tribal-owned businesses and enterprises.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	30%	Ongoing	

Developing a revolving loan fund for new and expanding businesses locating in the Ojibwa Industrial Park.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		10%	2006	

Providing opportunities for job training for Tribal members in collaboration with Ojibwa Community College and local business/industry.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		50%	Ongoing	

Collaborating with local, county, state, and regional EC agencies and organizations.

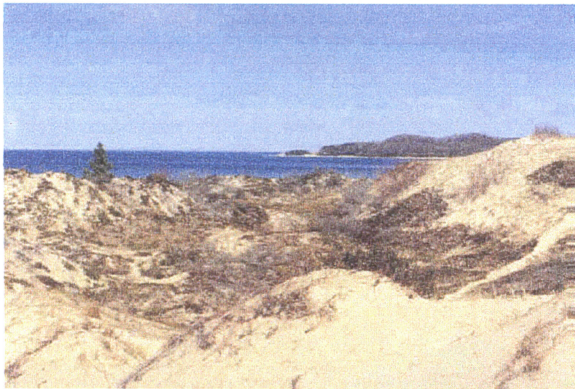
Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	25%	Ongoing	

SOILS

Goal: Maintain and/or improve the Reservation's soil resources.

SOILS MANAGEMENT

The soil resources found on the Keweenaw Bay Indian Reservation, as well as other KBIC land holdings, will have to provide the community with a number of things well in to the future. By keeping soil erosion in check, soil productivity will be sustained and food and fiber can continue to be produced on Tribally controlled lands by many generations of Tribal members well in to the future. Also, by keeping soil erosion at a minimum, sand and sediment will be greatly reduced in the adjoining creeks and streams thus greatly benefiting fish populations.



Proper building site selection is very dependent on soils limitations. Building foundation stability, sanitary facilities (such as septic tanks and associated drain fields), dwellings with and without basements, small commercial building loading, local roads and streets, lawns and landscaping are all heavily impacted by soils found on-site. Soils affect the kind and amount of vegetation that is available to wildlife for food and cover. They also affect the construction of water

impoundments used by wildlife. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created, diversified and improved by planting appropriate vegetation, by maintaining existing plant cover, or by promoting the natural establishment of desirable plant species. Soils limitations should be considered when planning parks, wildlife refuges, nature study areas like Mud Lakes, and other developments for wildlife. By selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of the management needed for each element of the habitat more game and non-game numbers and diversity will result.

The Baraga County Soil Survey, addressing the KBIC Reservation in Baraga County was issued in 1988, has approximately 127 different soil types identified within it. A County-wide soil survey is made by a team of Soil Scientists. They walk over the land and examine the soil with an auger to a depth of five feet. As the Soil Scientist examines each auger full of soil, the Scientist records the properties that affect the use and management of that respective soil. After determining the extent and area of a specific soil, the Soil Scientist marks its exact location on an aerial photograph. When all the soils are mapped in this fashion and their properties are described, the maps and other technical

information are assembled into a publication called the Soil Survey.

The soils found on the KBIC Reservation, as well as on the other Tribal holdings in both Marquette and Ontonagon Counties, range widely in texture, natural drainage, slope, and other characteristics. Generally, soils with steep slopes, droughtiness and poor drainage properties are best suited to woodland and wildlife pursuits. Subsoil in these landholdings that are classified as moderately well drained usually have a restrictive layer that limits the use of forest equipment and makes residential development more costly.

On the Keweenaw Bay Indian Reservation located on either side of Keweenaw Bay there are various kinds of soils found in close proximity/association with one another. About 20% of the Baraga County soil survey area is made up of poorly drained mineral soils and very poorly drained organic soils. There are five of these associations found on the Reservation according to the Baraga Soil Survey - "General Soils Map". The first association is the Munising - Yalmer association. These soils are found in nearly level to rolling areas. They are deep, moderately well drained, sandy soils on till plains and moraines. Another association of soils is the Kalkaska-Keweenaw soils. These soils are found in areas that are nearly level to steep in grade. They are deep, well drained to somewhat excessively well drained sands. Generally, this soil association is found on till plains, moraines, and outwash plains. The third association involves the Skaneateles-Munising-Gay soils. They are found in nearly level to undulating topography. They are deep, moderately well drained to somewhat poorly drained sandy and loamy soils on till plains. The next association is the Kinross-Au Gres-

Croswell soils that are found in nearly level areas. These soils are deep, poorly drained to moderately well drained sandy soils on outwash plains, lake plains, and till plains. The fifth association is the Munising-Yalmer-Keweenaw soils. These soils are found in nearly level to very steep areas. They are all deep, moderately well and well drained sandy soils on dissected till plains.

There are also areas found on the Reservation that are called "man made" soils. These soil survey mapping units consist of heavily disturbed soils located in construction areas. Due to this reworking and the human intervention of a natural soil site, the Soil Scientists could not classify these soils down to a named soil series level.

Baraga County and the KBIC Indian Reservation, found on both sides of Keweenaw Bay, were soil surveyed by the USDA-NRCS, Natural Resources Conservation Service. This published Soil Survey is not presently available in a digital format that meets SSURGO (Soil Survey Geographic Data Base standards). The USDA-NRCS will only release to the public this level of accuracy in their digitized soil surveys. This high level of accuracy would be useful when examining areas down to 10 to fifteen acres for specific soils limitations.

Presently, soils within Baraga County are only available in a GIS format through the Michigan Department of Natural Resources, Michigan Resource Information System known as the MIRIS system. This level of informational accuracy should only be used as a general reference at a watershed or township sized scale. Within three to five years the Baraga County Soil Survey will be digitized to a SSURGO level standard so soils series and their associated limitations

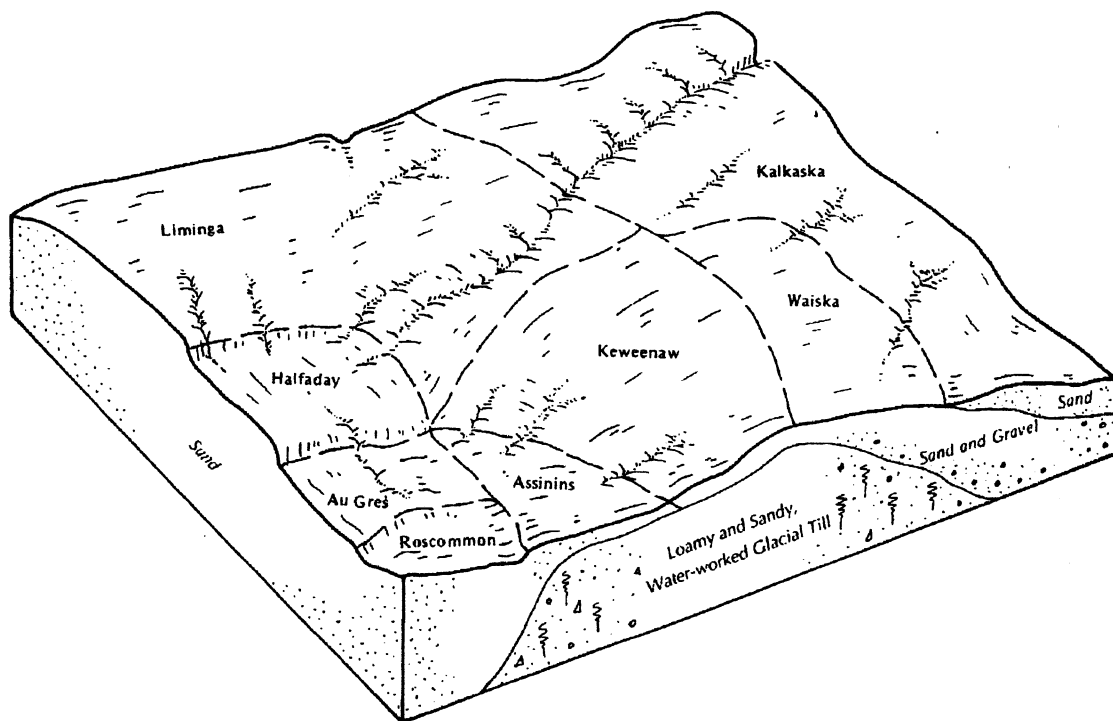
can be identified down to a much smaller scale.

The soils found in the Ontonagon Reservation found near Fourteen Mile Point have not been mapped by the USDA as of this writing. According to the Ontonagon County Soil Survey Crew, based on mapping in adjoining area, they predict that there are dense lake till soils with silty loam and loamy surface textures found in this area. These soils are moderately well to somewhat poorly drained and are found on relatively flat slopes. A Watton Soil Series that is mapped in Houghton County closely resembles the kinds of soils found in this area of Ontonagon County.

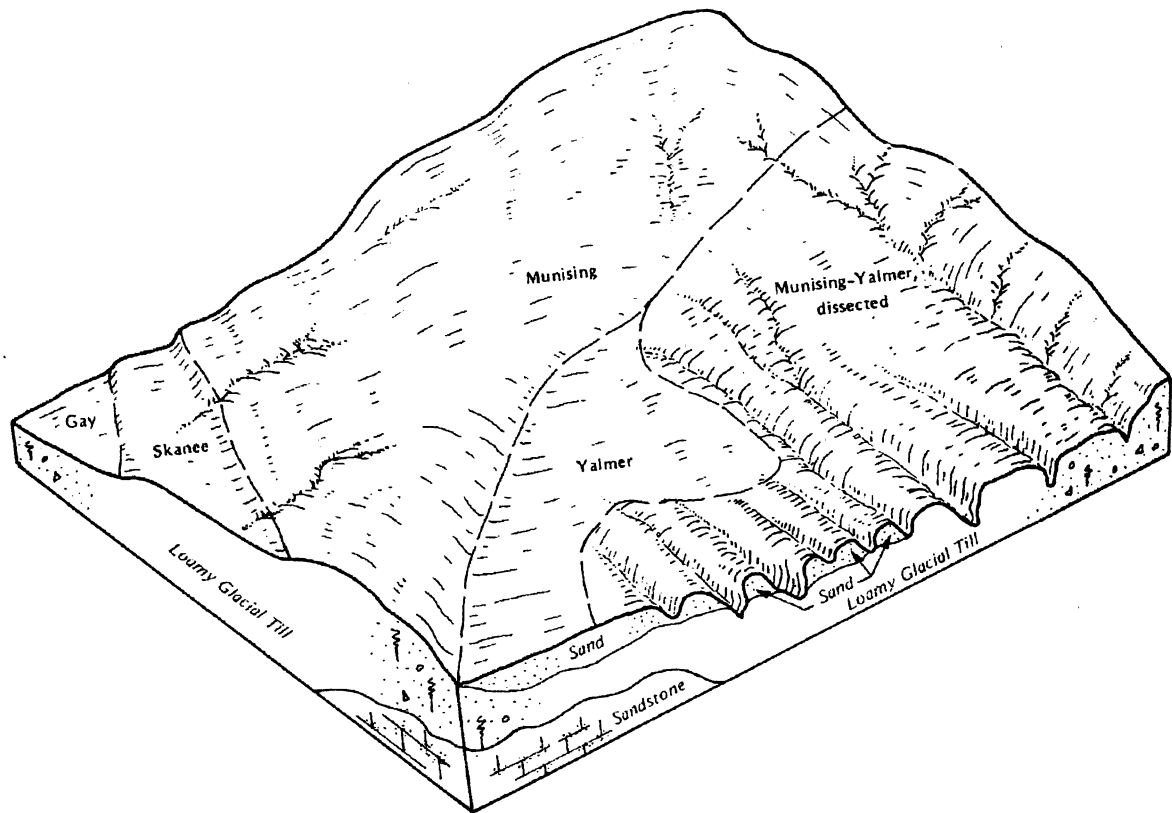
At the Marquette County KBIC Tribal land holdings, a soils series known as Deer Park has been mapped by the USDA Marquette County Soil Survey Crew. The

Deer Park Soil Series is an excessively drained sand found on older beach ridges and dunes that have over time been stabilized by vegetation. This kind of very sandy soil is usually found in close proximity to Lake Superior. This Deer Park mapping unit, found at this site, has been designated as having a slopes of 1 to 10%.

An up-to-date soils knowledge is very important when managing Tribal natural resources, pursuing community economic development, or enhancing wildlife numbers and species diversity. The use of a Soil Survey can be of great assistance in the making educated land use decisions. Everyday people make decisions on how to use the land. Each of us is affected directly or indirectly by those decisions. Some are good – others are not.



—Typical pattern of soils and parent material in the Kalkaska-Liming-Waiska association.



Typical pattern of soils and parent material in the Munising-Yalmer association.

Benchmarks

Coordinate with the USDA – NRCS so a SSURGO level standard, soil survey GIS layer, digital line graph can be produced using existing county-wide mapping for the Reservation and adjacent properties, as well as the other KBIC land holdings.

Develop, enact and enforce a Tribal sediment/erosion control code/ordinance that addresses new construction and land disturbances within the Reservation that could potentially pose a sediment runoff/water pollution problem to both the lands and surface waters of the Reservation.

Input culturally significant plant sites on to soils maps so potential future planting sites for the various plant species can be identified.

Actively apply relevant soils information to all resource planning, economic undertakings and wildlife endeavors undertaken on the Reservation, as well as other KBIC land holdings.

Impacts of the Benchmark

Utilizing a SSURGO level GIS layer the KBNRD plus the other KB Departments, as well as the Tribal Council, will be much better informed about the natural resource conditions that exist on the Reservation. This updated soils layer can supply needed resource information that can be used to improve all the future KB land use decisions.

Once the sediment control/erosion ordinance is empowered on the Reservation, both existing and future water quality problems can be addressed jurisdictionally should voluntary solutions not be successful. The enforcement of this code should benefit the surface water quality found throughout the Reservation.

By having culturally significant plants identified and located on soil survey maps of the Reservation future planting sites can be identified and the possibility of a successful plant establishment can be enhanced.

STATUS

Developing and enforcing wind and water erosion standards that are protective of both Treaty and subsistence usage.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2005	

Procuring a computer digitized soil map of the Reservation and adjacent areas utilizing the published Baraga County Soil Survey.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		80%	2003	

Inventorying and evaluating the 95-acre Sand Point stamp sand site and seek alternative solutions for it's future remediation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		50%	2003	

WATER QUALITY

Goal: Ensure that all Reservation surface waters are fishable, swimmable, and drinkable in accordance with the EPA Clean Water Act, and Tribal water quality standards; and protect the quality and quantity of groundwater resources for Tribal members.

WATER QUALITY MANAGEMENT

The L'Anse Reservation is located in Baraga County in the northwestern part of Michigan's Upper Peninsula at the southern end of Keweenaw Bay. The Reservation consists of 70,327 contiguous acres which includes approximately 17 miles of Lake Superior shoreline, 80 miles of streams and rivers, 15,000 acres of lakes and 3,000 acres of wetland.

Tribal members expressed, through responses to an IRMP survey, that protection of water quality should be the top priority of the Keweenaw Bay Indian Community. The surface waters within and bordering the Reservation are critical to both human and environmental health. Surface water is the main drinking water source for much of the Community, including citizens in the neighboring villages of L'Anse and Baraga. The continuation of commercial and sport fishing, wild rice harvesting, ceremonial/ cultural uses, and other forms of recreation (swimming, boating, etc.) are also dependent upon the quality of these surface waters

A comprehensive program of monitoring and management of this important resource will insure the quality of the water for future generations. The KBIC Natural Resources Department has begun an EPA Clean Water Act program, under Section 106, to develop tailored water quality standards for the Reservation. Surface Water Monitoring of lakes, rivers and

streams throughout the Reservation (beginning in 1999) to obtain baseline data has been implemented. A US Geographical Survey (USGS) gaging station has been installed in the Silver River to constantly monitor flow and temperature on a real-time basis. This will provide valuable hydrologic information for KBIC in addition to the current monitoring taking place. KBIC has collected physical, chemical, and biological data on many sites since implementation. Analysis of this baseline data will be used to set the Water Quality Standards. These standards are necessary to insure the health of our water resources for future generations.



The Reservation also contains approximately 800 private wells that Tribal members depend upon for their drinking water supply. Some of the wells obtain water from a glacial-drift aquifer and the others from an older bedrock aquifer (Doonan and Byerlay, 1973.). Another part of the EPA 106 plan & BIA water resources

program is the development of an aquifer ground water flow model. John Gierke, (professor, Department of Geological Engineering & Sciences at Michigan Technological University) is the consultant for this project. This model will simulate the subsurface flow of water in the Zeba Creek and Silver River Watersheds.

Source Water Assessments and the consequent Source Water Protection Plans (SWPP) will be completed for all public water supply sources of concern on the Reservation. This will further insure the protection of groundwater and surface water resources on the Reservation. Wastewater management would insure protection of human health and environment for Tribal members. EPA and Indian Health Service assist in proper management of wastewater through technical assistance and funding for

individual septic systems, as well as public utility collection systems in L'Anse and Baraga. KBIC is a joint owner of the Baraga Wastewater System.

The Natural Resources Department has begun an EPA 106 program to set tailored water quality standards for the Reservation. A monitoring program of lakes, rivers, and streams to obtain baseline data has been implemented in the Reservation area. Analysis of this data will be used to set the Water Quality Standards. Testing of well water quality is also part of this program and will lead to the development of source water assessment and protection plans. These plans will further protect the drinking water resources of the L'Anse Reservation. Watershed inventories are also included in the objectives.

Benchmarks

Surface Water: The Keweenaw Bay Natural Resources Water Quality staff began collecting and testing surface water samples under the EPA 106 program in 1999. Samples will continue to be collected annually through 2004. These monitoring results will be used to develop specific Water Quality Standards for the Keweenaw Bay Indian Community. Draft Water Quality Standards have already been completed and final implementation is planned to take place by 2005. The Silver River gaging station will continue to be maintained by USGS as they deem necessary, but will give KBIC much needed hydrologic information. Wastewater management will be implemented as needed with assistance from EPA and Indian Health Service.

Ground Water: John Gierke from Michigan Technological University began aquifer studies in 1999 for KBIC. He has finished studies on the Daults, Denomie, and Zeba Creek watersheds and will be completing the Silver River Watershed in 2003. KBNRD staff has surveyed the wells from homeowners in the Denomie and Daults Creek (Herman), Zeba Creek and Silver River watersheds and will continue with the Falls River and Little Carp River watersheds in 2004 and 2005, respectively. Source Water Assessment and Protection Plans will further protect the integrity of both ground water and surface water for the Keweenaw Bay Indian Community.

Impacts of Benchmarks

Water quality standards will become an integral tool to maintain and improve the quality of all water bodies on the Reservation.

The Aquifer Study, along with the Source Water Protection Plans, will give us the opportunity to identify, delineate, and protect groundwater resources.

STATUS

Developing Tribal water quality standards for the L'Anse Federal Indian Reservation will provide for the following:

- a) The protection of health of the Anishinaabe people, their cultural lifeways and heritage.
- b) Offers special and more stringent protection of pristine and culturally important water bodies.
- c) Forbids all new discharges of persistent organic pollutants (such as dioxin) to Reservation waters.
- d) Establishes an administrative policy by which complaints, non-compliance and departmental decisions are processed and appealed.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	40%	2004	

Obtaining jurisdictional authority over all surface waters within the Reservation Boundaries.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2006	

Establishing a surface water quality monitoring program for waters within the Reservation boundaries.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Establishing an environmental review policy that reviews, approves and monitors all Tribally initiated projects, within the Reservation boundaries, which have the potential to impact the Community's water resources.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2006	

Developing and establishing an environmental health code that addresses the following:

- a) Regulates on-site wastewater treatment systems.
- b) Mandates the proper abandonment of unused wells.
- c) Prohibits point source grey water discharges within the Reservation boundaries.
- d) Addresses the need for mandatory connection to public water supply and wastewater treatment systems when made available.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓			✓

Identify, delineate and characterize the groundwater resources within the Reservation.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		2010	

Incorporating into any land use or resource development plan the protection of sensitive areas of groundwater recharge.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003 – Resource Development Plan and thereafter, ongoing.	

Develop Source Water Protection Plans for all public water supply wells of concern to the Keweenaw Bay Indian Community.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓			



ROADS / TRANSPORTATION

Goal: Support and promote transportation infrastructure development consistent with traditional Anishinaabe lifeways while at the same time serving the economic development needs of the Keweenaw Bay Indian Community.

ROADS / TRANSPORTATION MANAGEMENT

Roads are the main conveyance to carry out our daily activities. Logically, we think of driving on established state or county roads. That road system is well established and contains notable features like federal highway US 41 that traverses north and south and connects L'Anse to Baraga. M-38 is a state highway that originates in Baraga and heads west towards Ontonagon. Baraga county roads consist of asphalt and gravel roads that lead to our homes. In addition, there are logging roads and private roads that are seasonally utilized by area residents. Currently, we have few roads that are exclusively considered KBIC roads. We have a reciprocal agreement with Mead-West Vaco for the use of each other's roads.

We have a network of roads that ultimately need constant repair and maintenance. This road system is funded by Federal and state taxes as well as BIA. We have to cooperatively fund our road system and support initiatives undertaken by each agency. KBIC is proud to have co-sponsored the replacement of crossings on the Silver River and Zeba Creek. As Tribal members expand their living outside areas serviced by roads, we have to secure funding to increase our standards and integrate with required utilities. Ultimately, roads link us to outside communities and are a normal infrastructure in present society.

Benchmarks

Inventory the roads on the Reservation and seeking funding to maintain and expand our present network.

Cooperate with related agencies for the improvement of our roads.

Develop a road maintenance plan for the Reservation.

Impacts to benchmarks-

Provide avenues for maintaining our current lifestyles.

Expand our use of tribal property and increase housing outside traditional areas.

STATUS

Establishing a Tribal Transportation Advisory Committee, made up of Tribal members, to assist staff in the development and implementation of a long-range transportation plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		✓ - Roads Manager	2003	

Researching and making further assessment of community needs identified in IRMP survey.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Updating existing Indian Reservation Roads Data.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
			Done for 2001 Ongoing. Will be accomplished annually	

Providing necessary education to staff and advisory committee to develop a Long Range Transportation Plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	Annual through BIA	Ongoing	

Developing a Long Range Transportation Plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	10%	2004	

Implementing a Long Range Transportation Plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			Ongoing	

LAND ACQUISITION

Goal: Increase the land base of the Keweenaw Bay Indian Community, and support and strengthen Tribal sovereignty through the exercising of jurisdictional rights as they pertain to land use within and contiguous to the exterior boundaries of the L'Anse Indian Reservation.

LAND ACQUISITION MANAGEMENT

The Keweenaw Bay Indian Community has faced many of the same adversities as other Tribes across the continent. The settlement of the Europeans brought a way of life that was unknown to the North American Indians. Through centuries of war and an advancing foreign civilization, the North American Indian Tribes lost nearly all lands they once considered home. The Keweenaw Bay Indian Community, aka L'Anse Indian Reservation, established by the 1854 Treaty with the Chippewa, and allotted in the same, lost, through sale, 44,379 (81% of the total land mass of the Reservation) acres from the time the first allotment was patented to present day. Today, like many other Tribes, the Keweenaw Bay Indian Community has the means to purchase back those lands lost over the years. Since 1996, the Keweenaw Bay Indian Community has purchased 2,100 acres within the Reservation boundaries, approximately \$200,000 in allotted interests and approximately 198 acres in Marquette County, Michigan.

The Keweenaw Bay Indian Community currently purchases land on a case by case basis, utilizing the existing real estate market and special needs of the Tribe. In anticipation of continued attacks against the Tribe's sovereignty and Treaty rights, we have chosen to become more focused in our efforts to acquire back the L'Anse Reservation and beyond, specifically calling upon it's members through the survey used in preparation of this task. The Land Acquisition efforts of this Tribe will focus on acquiring land that ensures future generations have a place here at home and across the Ceded Territory to exercise their hunting, fishing, gathering and trapping rights. We will attempt to regain those lands that have had significant influences in our history and cultural identity. We will attempt to acquire lands that will be the foundation for jobs and economic opportunity. Finally but not least important, we will attempt to consolidate those allotted interests from the ready, able and willing heirs who wish to sell to the Tribe in an attempt to one day make those lands available to the members of the Keweenaw Bay Indian Community.

Benchmarks

Continued lobbying for the acquisition of land within the exterior boundaries of the Reservation on a case by case basis, including, annual monetary commitments from the Tribal Council to purchase those lands. (Real Estate)

Implement a Land Acquisition Plan consistent with data collected from IRMP Survey results of the Tribal community input which will focus on future developments (economic, environmental, cultural, legal, etc.). (IRMP Team, NR Committee)

Enter into the *Pilot Program for the Acquisition of Fractional Interests* (25 USC 24.2212) (Real Estate)

Acquire wetlands and associated habitats with common natural resource funding, i.e., North American Wetlands Conservation Act.

Impacts of Benchmarks

Continued increase in number of acres owned by the Tribe and maximum awareness of importance of land acquisition throughout the community and how ownership 1) promotes of the exercise of Treaty rights (hunting, fishing & gathering) through physical access to lands to do so, 2) promotes and encourages protection of historically and culturally significant areas, 3) provides for consistent and contiguous land uses without jurisdictional lapses due to checker board ownership, and 4) ensures future generations a place to practice traditional life ways; 5) protect wetlands and other sensitive habitats.

Will continue to purchase lands on a case by case basis but Plan will provide direction and goals to the Tribal Council and staff consistent with those activities identified by survey results and future Tribal needs.

Provides manpower and capitol to acquire fractionated interests in the allotments of the L'Anse Indian Reservation. Over the past three (3) years the Keweenaw Bay Indian Community has acquired nearly \$200,000 in fractional interests using mostly internal sources, with some document and manpower support from the Bureau of Indian Affairs. Getting involved with this program means more time and working capitol for KBIC staff to work on acquiring fee lands and ultimately allowing staff to focus on those lands which, through the acquisition plan, will be of the most benefit to the Tribe or at least allow acquisitions to be prioritized. Long term this program moves the Tribe and Tribal members closer to utilizing these allotted lands as opposed to their current stagnant state.

LAND USE MANAGEMENT

To date, decisions on the use of the Community's land has been made for the most part on a case by case basis. Currently, the Tribe grants leases for residential home sites, recreational home sites (camps) and a few commercial sites. Through a Land Use Plan and ordinance, we intend to formally recognize capacities of Tribal lands in all categories of use; recognize and protect those lands held as culturally, environmentally, or historically sensitive; ensure an adequate supply of land for future generations through careful planning and permitting; discourage land development in areas that pose a threat to public health, the

Reservation's fisheries and other natural resources; to promote and preserve the unique Indian character, to reduce the potential for conflict between new development and the needs of the members of the Keweenaw Bay Indian Community; to provide for the orderly use of the Tribe's lands; to provide landowners and users of Community lands with consistent standards for Reservation land use activities by providing certainty and stability in land use decision-making; and to protect and enhance the natural beauty and resources of the L'Anse Indian Reservation.

Benchmarks

Development of Land Use Plan & Ordinance outlining procedures that encourage land use and activities that have historically been a part of Reservation life and promote economic and population growth consistent with those same ideas. (IRMP Team, Tribal Attorney, NR Committee)

Adopt the "One-Stop Mortgage Center Initiative in Indian Country" that provides for streamlines mortgage lending on Tribal trust lands. (Real Estate, Housing, Tribal Attorney)

Impacts of Benchmarks

Protection of those lands identified and approved as culturally, historically, and/or environmentally significant.

Protects natural resources from uses not consistent with best management practices.

Streamlines approval process by providing the Tribal Council (approving authority) and staff with the necessary guidelines by which land can be used and eliminating the current approval procedures which are all handled on a case by case basis.

Provides security to lessee, staff and Tribal Council to make better informed decisions on special uses.

Provides legal document on who (which departments) will need to sign off on uses before being taken to Council for approval.

Gives enforcement authority to policing agent(s).

Provides courts with procedures to appropriately handle violations.

Provides a fair and equitable opportunity for use of lands by all Tribal members and provide for the protection of the land and its Reservation for use by future generations.

Document will provide wide range of specific information such as, but not limited to: 1) current, historical, and permitting (zoning) land use maps, others to numerous to list; 2) Identification of properties for: a) Community, b) Government, c) Commercial (Industrial), d) Commercial (Forest Products), e) Residential, f) Recreational, g) Agriculture, h) Special Use, i) Protected, j) Other; 3) History of Land Use; 4) General Provisions; 5) Demographics; 6) Permitted Uses (Leases/Other); 7) Lending Procedures for Lien Priority, Eviction and Foreclosure; 8) Enforcement; 9) Ordinance; 10) Others.

The document will support grant funding opportunities, particularly those funding infrastructure improvements and development. Because the plan will contain significant amounts of demographic data, it may be used as a storage house for such information and a resource tool for Tribal government agencies requiring such information. Because the plan will provide basic information about future growth, it can be used as a business recruitment tool. This plan will also be used as a public relations tool, providing the Reservation's history as well as providing maps and other information pertinent and necessary to tourism.

GIS (GEOGRAPHIC INFORMATION SYSTEM)/GPS (GLOBAL POSITIONING SYSTEM)
RESEARCH AND DEVELOPMENT

Currently there are several departments utilizing GIS/GPS within the Tribal Government. GIS/GPS has become a powerful resource for the Natural Resources, Forestry, and Real Estate Divisions and its applications are virtually endless. Using GIS/GPS we can collect geographic data (location of roads, utilities, essentially anything on the surface of the earth), convert it to a useable format, organize it and distribute it in the form of printed maps or

digital bitmap files. We currently have several layers of data, including but not limited to: roads; railroads; land ownership; forestry; lakes; wetlands; partial utilities; political boundaries; sections, quarter sections; etc. Bringing all this information into a centralized system with all the data collected from every department being available from one source would provide for easy access to limitless amounts of data.

Benchmarks

Set policy and procedures on how data is collected, organized and distributed.

Continuous update of coverages using internal and external resources.

Organize and staff a GIS/GPS Department.

Impacts of Benchmarks

Having up to date data allowing informative decisions to be made and precise planning data when special circumstances arise.

Full time staff member(s) who will act as data collector, interpreter, organizer and distributor for the entire KBIC, not limited to Natural Resources.

Potential employment/business opportunity for KBIC

STATUS

Establishing a Natural Resources Committee, made up of **Tribal members**, to assist staff in this development and implementation of a land acquisition plan.

<u>Planning Stages</u>	<u>Initiated</u>	<u>% Accomplished</u>	<u>Proposed Completion</u>	<u>Completed</u>
		100%	Ongoing	✓ 2001

Researching and making further assessment of community needs identified in IRMP survey.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Providing necessary education to staff and advisory committee to develop a Land Acquisition Plan (LAP).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003–Hard document. Ongoing thereafter.	

Developing a Land Acquisition Plan (LAP).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003 – Ongoing	

Implementing a Land Acquisition Plan (LAP).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2003	

Establishing a Land Use Advisory Committee, made up of Tribal members, to assist staff in the development and implementation of a land use plan.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
		100%		2001

Researching and making further assessment of community needs identifies in IRMP survey:

- a) Develop a current and historical land use data base, and,
- b) Develop a comprehensive GIS/GPS Program

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓				

Providing necessary education to staff and advisory committee to develop a land Use Plan (LUP).

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		30%	Ongoing	

Developing a Land Use Plan (LUP) and ordinance.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓		5-10%	2004	

Implementing a Land Use Plan (LUP) and ordinance.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓			2005	

PARTNERSHIP AND EDUCATION

Goal: Foster and increase the coordination and collaboration of natural resources management with other governmental entities and private landowners.

PARTNERSHIP AND EDUCATION MANAGEMENT

The lack of knowledge regarding status of Tribes and Tribal sovereignty, and treaties has been the subject of much public concern and general misunderstanding over the decades. With inadequate knowledge of Tribal resource management and regulations that govern Tribal Treaty rights, individuals may assume that Tribal members hunt, fish, and gather unregulated and with little regard to limits. This ongoing mentality contributes to public confusion and mistrust on all sides. The continuous interaction of positive public

controversy will demonstrate that providing people with factual information curbs unnecessary hostility generated from unfounded fears and misinformation.

The KBIC Ojibwa Community college is a logical vehicle for enhancing partnership and education with the Tribal and non-Tribal Community. The College, located in Baraga, was founded in 1975 and has recently broadened their curriculum to include natural resource management.

Benchmark

Systematically inform Tribal members and the surrounding public through community forums, and television/print media of Treaty rights, Tribal self-regulation of each season's forest and fish harvest along with environmental concerns.

Impacts of Benchmark

Consistent communications with Tribal and non-Tribal individuals effectively counters numerous accusations regarding Treaty rights.

Benchmark

Maintain clearinghouse activities by providing updated and active resource publications which may be mailed to libraries, schools, state and federal policy-makers and to other Tribal government entities. This may be achieved through mailings, community informational booths, displays at a variety of conferences, health fairs, pow-wows and website.

Impacts of Benchmark

To maintain positive communication relationships with Tribal and non-Tribal members in order to expand the knowledge base of community members. This benchmark will address public confusion and clarify information related to Tribal regulations, environmental issues and basic Treaty rights.

Benchmark

Utilize the KBIC Ojibwa Community College to educate Tribal members and the public on KBIC natural resource management, treaty rights, and tribal self-regulation.

Impacts of Benchmark

Better informed Tribal and non-Tribal individuals about Tribal Natural Resource Management and Ojibwa Community College.

STATUS

Participating in regional and national organizations that promote Tribally compatible resource management.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	100%	Ongoing	

Distributing resource management information to Tribal and non-Tribal members.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	100%	Ongoing	

Collaborating with other natural resource agencies that promote protection and enhancement of natural resources consistent with traditional Anishinaabe lifeways of the Keweenaw Bay Indian Community.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Conducting annual public meetings with adjacent landowners to discuss common concerns, issues or problems.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓		Ongoing	

Expanding Ojibwa Community College curriculum towards tribal natural resource management.

Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
	✓	70%	2004	

Revise master plan for Ojibwa Community College that in part fosters better education regarding natural resource management.

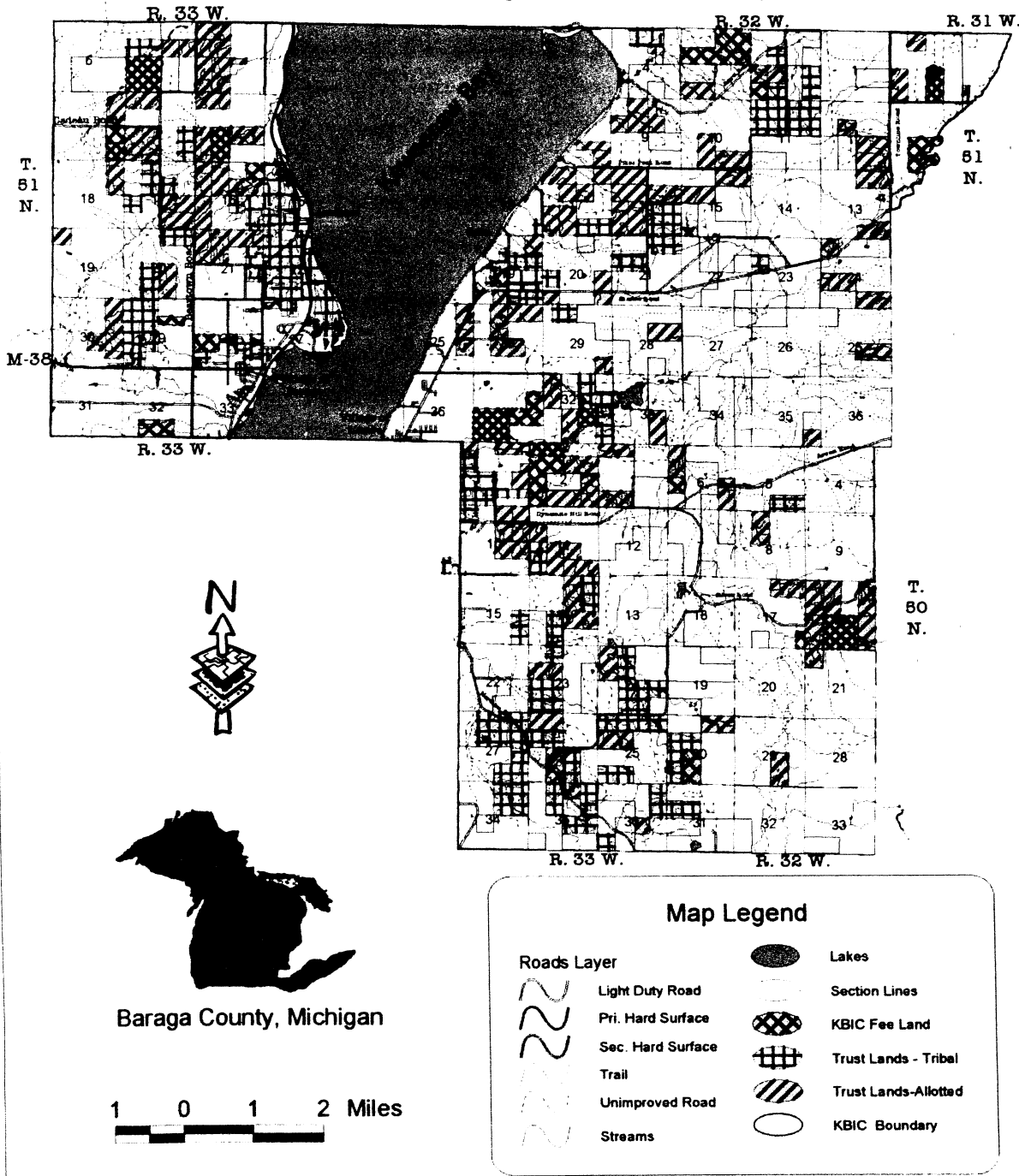
Planning Stages	Initiated	% Accomplished	Proposed Completion	Completed
✓	✓	20%	2005	



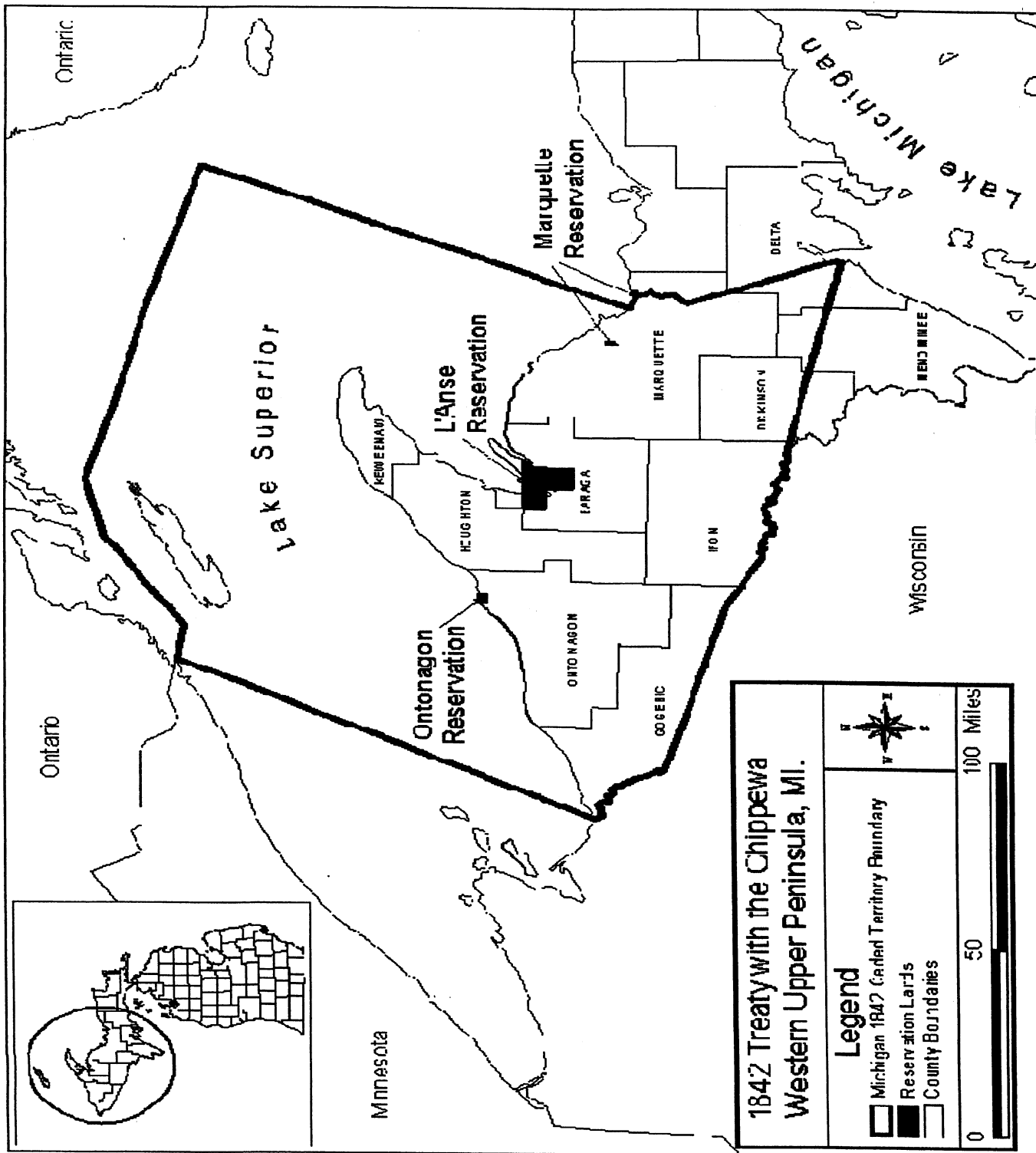
MAPS



Keweenaw Bay Indian Community Land Ownership in Baraga Co.









APPENDIX



ACRONYMS OFTEN USED IN THE CONSERVATION DISTRICT OPERATIONS

The use of acronyms is a common practice in today's world. The government is not alone. Every business, society, and profession seems to have their own set to use. The language used in district activities is often confusing to those unfamiliar with it. The following is a list of common acronyms you may run across in everyday district business:

ANA	Administration for Native Americans, U.S. Department of Health and Human Services. Federal agency that originally funded the KBIC Conservation District.
BIA	Bureau of Indian Affairs in the U.S. Department of Interior.
CD	Conservation District
CWA	Cooperative Working Agreement. Document that defines the working relationship between USDA NRCS, the Michigan Conservation Districts and the Michigan Department of Agriculture.
DC	District Conservationist. (USDA NRCS) person who has overall supervision of NRCS service unit.
DEQ or MDEQ	Michigan Department of Environmental Quality.
DNR or MDNR	Michigan Department of Natural Resources
EPA or USEPA	U.S. Environmental Protection Agency.
EQIP	Environmental Quality Incentives Program. This is a federal program that provides funds on a competitive basis for cost-share. This was part of the 1996 Farm Bill
FEMA	Federal Emergency Management Act. Federal agency that provides disaster relief.
FOIA	Freedom of Information Act
FSA	USDA Farm Services Agency
GAP	General Assistance Program, EPA grant program for each Tribe in Midwest.
GIS	Geographic Information Systems
GLIFWC	Great Lakes Indian Fish and Wildlife Commission
GPS	Global Positioning System

IAC	Intertribal Agriculture Council – a national organization with the goal of helping to improve the management and conservation of Indian Land.
IHS	Indian Health Service
IPM	Intertribal Council of Michigan, Inc. Headquartered in Sault Ste. Marie, MI
IRMP	Integrated Resources Management Plan, BIA program to foster a resource management plan specific for each Tribe.
MACD	Michigan Association of Conservation Districts. A non-profit organization that supports the work of districts throughout the state.
MDA	Michigan Department of Agriculture.
MEDQ or DEQ	Michigan Department of Environmental Quality
MDNR or DNR	Michigan Department of Natural Resources
MDOT	Michigan Department of Transportation
MOU	Memorandum of Understanding. Agreements between agencies on how they will support each others activities.
MSUE	Michigan State University Extension. This organization operates with substantial USDA funds, thus having federal trust responsibilities.
NACD	National Association of Conservation Districts. A non-profit organization that supports the work of districts nationwide.
NRCS	USDA Natural Resource Conversation Service.
RC&D	Resource Conservation and Development. Non-profit organizations staffed by NRCS employees. RC&D's help communities improve their economies and quality of life through wise use and development of natural resources.
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USF&WS	United States Fish and Wildlife Service. Within the United States Department of the Interior (DOI).
USFS	United States Forestry Service
USGS	United Stated Geological Survey

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Hansen, M.J. [Ed.]. 1996. A lake trout restoration plan for Lake Superior. Great Lakes Fishery Commission. 34 p.

Keweenaw Bay Indian Community, Tribal Code, Hunting, Fishing, Trapping, Gathering Regulations and Fisheries Management Plan. Chapter 10. 2001.

1987 CORPS of Engineers Wetlands Delineation Manual

Website: <http://www.usace.army.mil/>



SURVEY



Dear Participant:

The Keweenaw Bay Tribal Natural Resources Department is developing a comprehensive management plan for the Keweenaw Bay Indian Community. We request your participation in the following survey to help us determine appropriate levels of resource use, and to assist us in the development of management strategies to ensure the long-term protection of our natural resources. We thank you for your assistance!

Sincerely,

Michael Donofrio

Michael Donofrio
Natural Resources Director

Keweenaw Bay Indian Community
Integrated Resources Management Plan Survey
(Only one adult/ household should answer questions about children)

1. Gender: ☐ Male ☐ Female
2. Age: 18-25 ☐ 26-35 ☐ 46-55 ☐ 56-55 ☐ 66+ ☐
3. In your household, please tell us the number of
 ☐ Keweenaw Bay Tribal member(s) living On the L'Anse Indian Reservation.
 ☐ Keweenaw Bay Tribal member(s) living Off the L'Anse Indian Reservation.
 ☐ Other Tribal member(s)
 ☐ Non-Tribal member(s).
4. Baraga County Resident: Yes ☐ No ☐
 Type of Baraga County Residence: Permanent ☐ Seasonal ☐ Both ☐ None ☐
5. My hobbies and recreational activities include: (please check all that apply)
 ☐ hunting ☐ fishing ☐ traditional (gathering plants, ricing, etc)
 ☐ non-motorized activities (x-skiing, biking, hiking, metal detecting, etc)
 ☐ motorized activities (motor boating, snowmobiling, O.R.V.'s etc)

6. Please rate the following by placing an "X" mark in the column(s) that describe where you think present and future emphasis should be directed.

Land Use	Very Important	Important	Not Important	No Opinion
Gathering uses: Maple sugar, berry picking, traditional medicines, etc				
Recreation (tourism)				
Fish populations (walleye, trout, etc.)				
Game Populations (Deer, Bear, etc.)				
Non-game Populations song birds, reptiles, etc.				
Timber Management				
Water Quality protection of lakes, streams, and wells				
Protected Areas (roadless, motor vehicles prohibited)				
Road Development				
Housing Site Development				
Job opportunities				
Aesthetics (natural beauty)				

7. Which of the following issues should be made priorities in the Keweenaw Tribal land use planning process? (Please mark (x) the 5 most important.)

- | | |
|--|---|
| <input type="checkbox"/> Adequacy of water and sewer services | <input type="checkbox"/> Protection of historical/cultural resource |
| <input type="checkbox"/> Enhancement of tribal community areas | <input type="checkbox"/> Protection of scenery/ shoreline |
| <input type="checkbox"/> Preservation of forest lands | <input type="checkbox"/> Protection of wetlands |
| <input type="checkbox"/> Development of adequate roads | <input type="checkbox"/> Protection of fish and wildlife habitat |
| <input type="checkbox"/> Protection of water quality | <input type="checkbox"/> Enhancement of tourism/ recreation |
| <input type="checkbox"/> Tribal plant gathering | <input type="checkbox"/> Implementing land use codes/ zoning |
| <input type="checkbox"/> Commercial Timber Production | <input type="checkbox"/> Other _____ |

8. What should be considered as most important in Wildlife Resource Management in the Keweenaw Bay Indian Community? Rate the following as you did above.

Wildlife	Very Important	Important	Not Important	No Opinion
Bear				
Deer				
Partridge				
Small Game				
Fisheries				
Waterfowl				
Fur Bearers				
Non-Game				
Protected Animals (i.e. eagles and wolves)				

9. The current average timber harvest levels by the Keweenaw Bay Tribe are at 50% of the total sustainable harvest allowed by their BIA 1995 Forest Management Plan (average allowable cut timber volume is 2.75 million board feet). Based on that information should timber cutting be (Check one): ☐ Increased ☐ Decreased ☐ Stay the Same ☐ No Response
10. Do you heat your home with firewood: primary ☐ secondary ☐ none ☐
11. Should the Keweenaw Bay Tribe establish protected area(s) where road construction and land development are restricted? ☐ No ☐ Yes
Potential Areas: _____
12. Man-made chemicals (herbicides/pesticides) are an important part of a present day forest management program. With this in mind, should properly applied chemical use be allowed by qualified people on the Reservation? ☐ No ☐ Yes
Comments: _____
13. Should the tribe establish a Residential/Urban Development plan limiting further development in productive forested lands and tree plantations? ☐ No ☐ Yes
14. Do you think it is important for the Keweenaw Bay Tribe to purchase lands that have a traditional religious, cultural or historical significance? ☐ No ☐ Yes
15. Do you feel illegal dumping is a problem on the Reservation? ☐ No ☐ Yes
Comments: _____

16. What type of Keweenaw Bay Tribal economic development (employment opportunities) should be considered for this community? Place a check mark in the column(s) that apply.

Economic Development	Very Important	Important	Not Important	No Opinion
Resort Development				
Christmas Tree Farm				
Sugarbush development				
Logging Enterprise				
Heavy Industry				
Light Industry				
Retail				
Commercial fishing				
Snowmobile Trails and Racing				

17. Do you think it's important to establish some form of zoning on Tribal lands in order to separate commercial, residential, and recreational sites? ____ No ____ Yes
18. The Keweenaw Bay Tribal hatchery has been stocking trout since 1993 as these fish mature should seasonal spawning closures be implemented into Keweenaw Bay Tribal regulations? Sport ____ No ____ Yes Commercial ____ No ____ Yes
19. The 1998-99 Keweenaw Bay Tribal commercial fishing in the on-reservation waters (roughly from Baraga to Pequaming) was 248,000 ft of gill net and 50,000 pounds of fish (within the sustainable biological quota). Should commercial fishing effort be reduced ____, stay the same ____, or eliminated ____ in these on-reservation waters to allow more sportfishing opportunities?

Name and address, especially if you want to receive subsequent information (optional):

Additional comments: _____

Thanks (Megwetch) for your cooperation. Please return this completed survey to us at the POW WOW or return by July 31st. We can be contacted at Keweenaw Bay Natural Resources Dept, P.O. Box 10, L'Anse, MI 49946. Telephone 906-524-5757.



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