

# **Keweenaw Bay Indian Community Wetland Use and Value Survey Report 2018**



## **Acknowledgements**

Miigwech to all *Keweenaw Bay Indian Community Tribal Members* who took the time and effort to complete and return the wetland use and value survey. All of your insights and opinions are extremely valuable to the ongoing and future guidance of stewardship actions – your contributions help to ensure that our priorities reflect that of the Keweenaw Bay Indian Community.

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Miigwech to all the *KBIC-NRD Staff* who dedicated their time and knowledge: Evelyn Ravindran, Director; Karena Schmidt, Ecologist; Stephanie Kozich, Water Resources Specialist; Kyle Seppanen, Wildlife Technician; Erin Johnston, Wildlife Biologist.

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## 1. Introduction

The Keweenaw Bay Indian Community (KBIC) is a Native American community in Baraga County Michigan's Upper Peninsula along the shores of Lake Superior. This federally-recognized tribe is one of many tribes which have centuries of traditional and spiritual connections to the land, to the waters, and to the fish and wildlife (Cain B, Schlender JH, Langseth R, Hillaire D, Donofrio M 2004; GLIFWC 2013; Hindelang 2006; KBIC 2003; Lewis 1995; NWIFC 2010; O'Neill 2007; Wood 2007).

Our wetlands are invaluable and are presently in danger of being negatively impacted from many different sources. For example, potential impacts of climate change on wetland ecosystems include changes in seasonal weather patterns, increase in extreme weather events, changes in Lake Superior ice cover and water levels, change in abundance and distribution of coastal wetlands, loss of native plant and animal species, and increase in non-native and invasive species. The NRD and Tribal Council have considered these potential impacts and understand that inaction may yield negative consequences for our community in the near future.

KBIC has an important role in protecting, defending, and healing our natural environment. The NRD seeks a pro-active approach for our wetlands using the guiding principles of stewardship for seven generations. Through this approach we acknowledge our role as caretakers and nurturers of a mutually beneficial relationship that incorporates Anishinaabe knowledge, beliefs, and values. In the Ojibwe language the words for bog (mashkiig), swamp (waabashkiki) and medicine (mashkiki) are similar in origin suggesting a connection between these types of wetland ecosystems and the location that many medicinal plants are found (KBIC Cultural Teachings).

This Report, entitled the Keweenaw Bay Indian Community Wetland Use and Value Survey Report, provides a summary of the Survey results of the 2018 Wetland Use and Value Survey distributed among Tribal members of the KBIC by the KBIC - Natural Resource Department (KBIC-NRD).

Surveys were mailed in April 2018 to 821 Tribal members. The response deadline was June 15, 2018 and a total of 132 (16%) were completed and returned to the KBIC-NRD. This survey was designed to assist with identifying use of and values associated with wetland resources on the L'Anse Reservation. Information gathered will be used in conjunction with biological data that was gathered from 2016-2018 to lay the foundation for development of a Wetland Monitoring Program for KBIC. Funds for conducting this survey were provided through Administration of Native Americans (Environmental Regulatory Authority Program), Great Lakes Restoration Initiative (Lakewide Management Program), and Michigan Humanities Council (Third Coast Conversations Program).

## 2. Methods

### 2.1 Survey Questionnaire

Development of this survey was a collaborative effort between KBIC-NRD staff, social scientists, and faculty of the Keweenaw Bay Ojibwa Community College (Environmental Science Department). Several meetings were held to discuss desired outcomes of the survey and develop questions.

### 2.2 Prize Drawing

As an incentive to encourage responses, prizes were made available to participants that returned their survey by May 15, 2018. A random number generator was used to select two winners from the complete list of those that responded within 30 days. In addition, prize drawings took place during two public meetings that were held in August 2018 to share results from the survey and biological data collection portions of the wetland project. Prizes included sweatshirts, coffee mugs, gas cards, bird feeders, and gift cards to local businesses.

### 2.3 Data Entry and Compilation

Information from completed surveys was entered into an Excel spreadsheet Database by KBIC-NRD staff from April 30, 2018 to June 30, 2018. KBIC-NRD staff then worked to tabulate and summarize results for development of this report.

## 3. Results and Discussion

In this section, the results of the Wetland Use and Value Survey responses are outlined in six primary parts: Demographics; Seasonal Wetland Activities; Environmental Benefits Wetlands Provide; Community Benefits Wetlands Provide; Wetland Stewardship; and Learning Opportunities. Each section provided an option for additional open-ended comments to be shared by respondents. Those comments are included at the end of this report.

### 3.1 Demographics

Tribal members were asked various questions regarding their demographics. Of the total 132 respondents fifty-eight percent (58%) reported female; forty-two percent (42%) reported male.

Tribal members were asked to report their age by checking a box for one of the four age groups: 18-31, 32-44, 45-64, or 65+. Majority of the respondents (77%) were 45 years of age or older and 74% of respondents indicated that they have lived in the area for greater than 30 years, which for many is all of their life.

Age Groups	Response Rate
18-31	9%
32-44	14%
45-64	49%
65+	28%

Tribal members were asked to report their highest level of formal education based on the following seven categories: *less than high school diploma; high school degree or equivalent; some college, no degree; trade or vocational school; associates degree;*

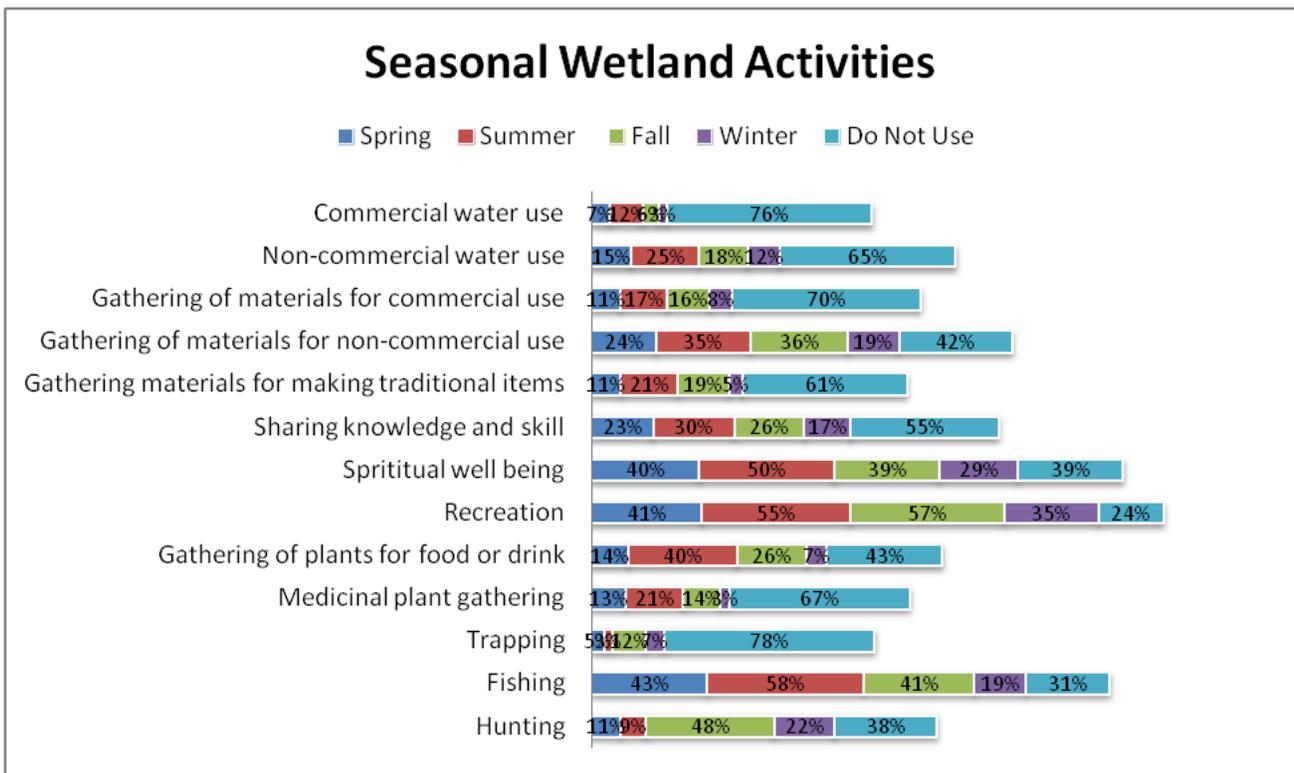
Keweenaw Bay Indian Community Wetland Resources Survey

*bachelors degree; graduate degree.* The table below shows the formal education reported by survey respondents. Only one person chose not to respond to the formal education question.

Education Level	Response Rate
Less than high school diploma	4.5%
High school degree or equivalent	20%
Some college, no degree	33%
Trade or vocational school	14%
Associates degree	16%
Bachelor's degree	7%
Graduate degree	4.5%

**3.2 Seasonal Wetland Activities**

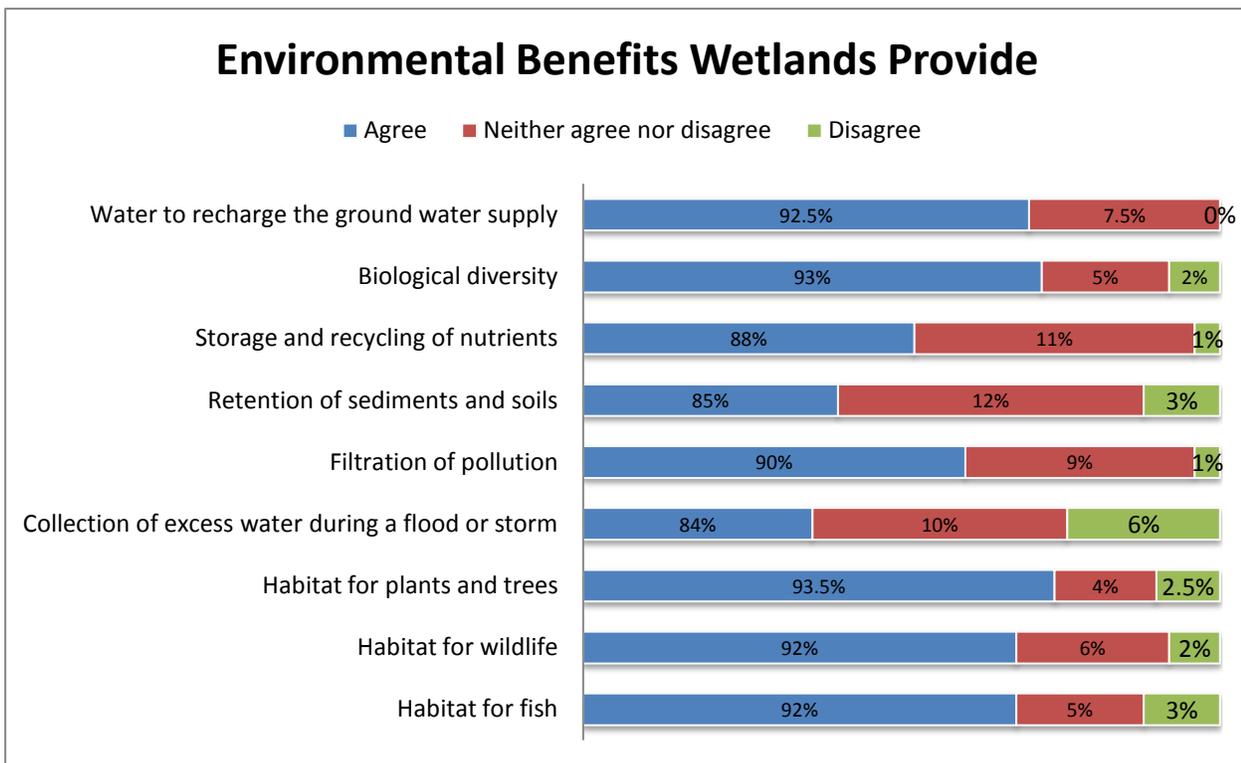
In the *Seasonal Wetland Activities* section of the survey, a statement was posed to respondents about their personal use and their family’s use of wetlands during various times of the year for various activities. Respondents were also given the option to indicate that they do not use wetlands for that activity. In the Spring, Summer, and Fall wetlands were most commonly used for fishing, recreation, and spiritual well being and personal enrichment. Hunting was also common during the Fall (48%). In Winter, wetland use appears to be minimal with recreation (35%) and spiritual well being and enrichment (29%) ranking highest. The do not use option in this section could also be interpreted as do not engage in that activity. It is not possible to tease that out, but it is likely that many of the respondents simply don’t engage in some of the activities. See figure X for detailed breakdowns for each category.



### 3.3 Environmental Benefits Wetlands Provide

In the section *Environmental Benefits Wetlands Provide*, respondents were asked to respond to the statement “*I believe wetlands need to be protected and/or restored because they provide environmental benefits such as...*” A list of nine benefits was provided and respondents were asked to indicate if they agree, disagree, or neither agree or disagree that the statement is an environmental benefit of wetlands.

Majority of respondents agree that wetlands provide many environmental benefits as illustrated in the figure below.

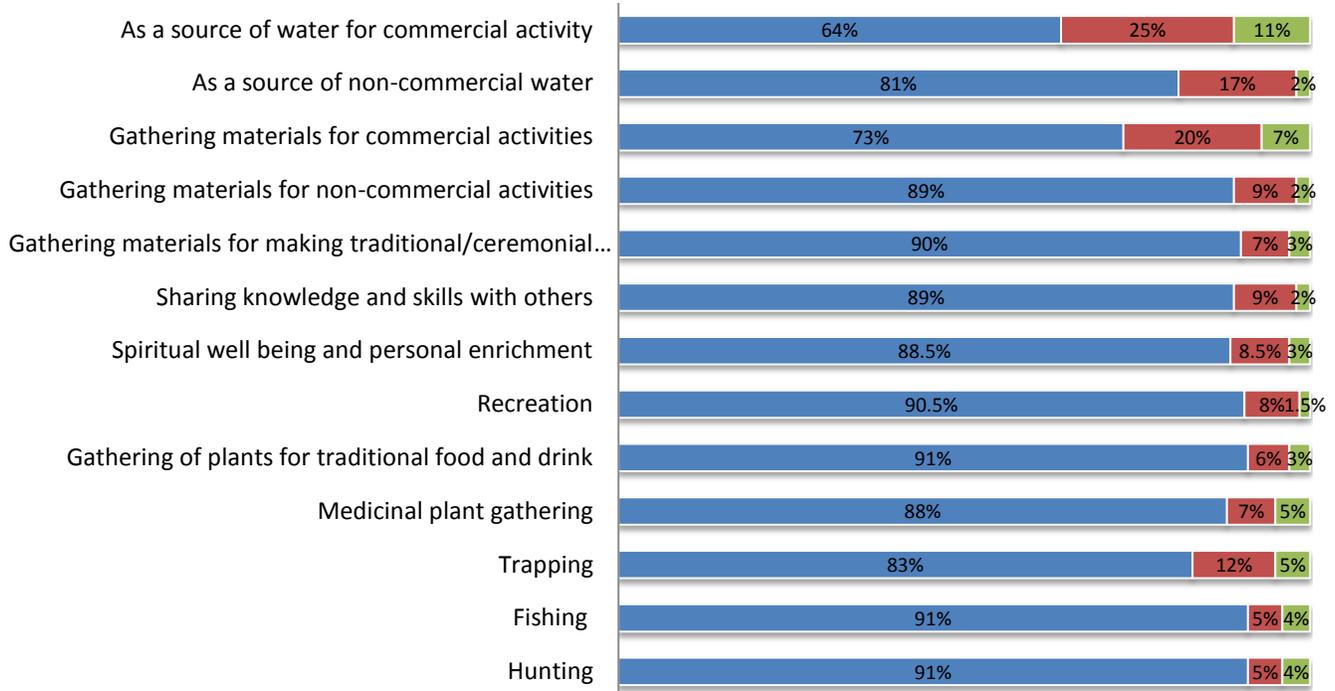


### 3.4 Community Benefits Wetlands Provide

In the section *Community Benefits Wetlands Provide*, a statement was posed to respondents about their belief that wetlands provide certain benefits to their community. The specific statement was “I believe wetlands need to be protected and/or restored because they provide my community with the following benefits, such as opportunities for...” followed by a list of thirteen benefits. With the exception of providing water for commercial use, respondents agree that wetlands provide a number of opportunities to the community and therefore should be protected or restored (see figure below)

## Community Benefits Wetlands Provide

■ Agree ■ Neither agree nor disagree ■ Disagree



### 3.5 Wetland Stewardship

In this section respondents were asked to select their top 5 priorities for wetland stewardship actions to be taken by KBIC. Understanding community preferences for stewardship actions will guide KBIC NRD as they develop proposals for project and program funding into the future. The survey specifically stated *“Focused on monitoring, restoration, and protection, my top 5 wetland stewardship priorities are...”* The priorities are listed below in order of highest to lowest rank. For a full list of choices, please see Appendix A section E.

Rank	Stewardship Action
1	Restore wetland habitat, including buffer zones, through restoration projects (i.e. wild rice restoration, Sand Point coastal beach restoration, and stream connectivity).
2	Monitor wetland habitat, including buffer zones (wetland fish, wildlife, and plant species).
3	Monitor human activities that may potentially impact wetland overall health (industry, agriculture, and other development activities).
4	Protect wetland habitat, including buffers zones, through regulations and ordinances (i.e. restrictions on chemical use, open dumping).
5	Protect wetland habitat, including buffer zones, through projects (i.e. invasive species management program).

### 3.6 Learning Opportunities

In this section respondents were asked to select their top 5 learning opportunities related to wetlands. Identifying community preferences will allow KBIC NRD to tailor education and outreach opportunities accordingly. The survey specifically stated *“The top 5 areas I am most interested in for learning opportunities are...”* The priorities are listed below in order of highest to lowest rank. For a complete list of options, please see Appendix A section F.

Rank	Learning Opportunity
1	Common fish, wildlife, and plants that live in our regional wetlands.
2	Current KBIC natural resource programs, projects, and policies related to the protection and restoration of wetland habitats (fisheries, wildlife, wetlands, water resources, plants, KBIC Title Ten, and others).
3	Ojibwa cultural values related to wetlands and their resources.
4	Gathering particular plant species in our regional wetlands and their uses.
5	Individual practices and activities that can help protect and restore wetlands (in your home, private property, work place, recreation, and/or business such as lawn & garden care, timber harvest, waste disposal, safe handling/use of chemical products, construction near wetlands, and others).

### 3.7 Open-Ended Responses

At the end of each section respondents were invited to share any additional thoughts they had related to wetlands or anything related to the natural environment. Comments received are listed below.

#### Seasonal Wetland Activities

- As a senior I enjoy watching the birds and other animals
- A lot of the time in the spring and summer we trap minnows for our fishing traps
- Would like to see Mud Lake Bridges restored
- I have not been able to this past year due to my health
- I'm concerned about what mining activity past and present is changing in our wetlands

#### Environmental Benefits Wetlands Provide

- I believe the caro river needs to be cleaned up as it is a tributary to Keweenaw Bay and stocked with Brook Trout, fish ladders added for the spring and fall steelhead runs
- Water supply- Many parts of the world is lacking clean water nestle mining water in ontanagon county is disturbing . The state of michigan is giving away this valuable resource for practically nothing
- I strongly believe that the wetlands should be left "ALONE"
- Temperatures are more temperate with wetlands nearby, so we don't get the extreme temperatures of drier areas. There are important areas for teaching our youth many different things, which strengthens our ties to our environment and helps us to be better stewards of the land

### **Community Benefits Wetlands Provide**

- This traditional stuff handed down from family to family

### **Wetland Stewardship**

- I can see signs being put up now
- Not sure if non-native species need to be removed or not
- Enforce laws
- Ban burn barrels people are burning plastic(Milk jugs, diapers) fumes are horrible and toxic
- We have the most beautiful waterfalls scenic routes, winding rivers and high hills that overlook our cast forest lands right in our backyards, we need to be thankful and protect our land
- Stewardship is an important part of our culture and so is protecting the young, wetlands are nurseries for many fish and amphibians and must be protected to stay true to who we are. We are the keepers of the medicine (three fires teachings) and wetlands hold so many of our medicines with the rich diversity found in them. Poisoning of our wetlands would lead to sickness in our whole community.
- Restore to historic levels

### **Learning Opportunities**

- More signs. White eyes statement
- Area that are designated wetlands
- Enforcing laws
- #8 is my 5th choice but with mobility issues I am not in a position to volunteer.
- composting (grant for the barrels)
- Mercury

### **Additional Comments**

- Haven't used wetlands since child
- I think with the wetland protection we should also look into the inland lakes stocking of fish that the KBIC claim on our boundaries. Sudden lake on forest highway 16 is an example. Has Bullrush all around lake, duck geese frogs, pike, perch and a gravel bed at the end of the lake for walleye spawning. The lake is low on walleye now and i believe or fisheries department should look into stocking inland lakes so families can fish these lakes
- Keep our wetlands clean
- Have public/tribal education classes or seminars available with the information mailed to tribal members as your info is not being passed alonged especially cultural uses of plants
- Call me @ 201-1858 when I win! LOL!
- Wetlands are heavily impacted by logging, poor road construction and maintenance and other illegal pollution. The KBIC should focus most of its effort to address this
- I would like to see our wetlands protected for our tribal beliefs and our animals and plants
- More clean ups other than just spring/fall. Kinda like adopt a highway but maybe cleaned up on a regular basis. Bi-annually, monthly for all reservation areas

- Involve students in these programs and initiatives so they are involved in learning/teachings
- I believe we should be supporting alternative energy sources such as wind and solar power. It would be a lot cleaner to the environment instead of fossil fuels, wood including rrties and natural gas production of energy
- Thank you for all the good work that you do
- KBIC has a lot of wetlands and we need to consider the importance of them for a healthy community when land use planning and development goes on
- We need to do all we can to protect it for future generations Celetek needs to go and PPC

#### **4. Conclusion**

The 2018 Wetland Use and Value Survey was the first community survey that focused specifically on wetland resources of the L'Anse Indian Reservation. Past surveys may have mentioned or include one general questions related to wetlands resources, but their focus was on all natural resources of the KBIC. This report establishes the wetland related interest of the KBIC and expresses areas of interest for future learning and stewardship opportunities.

Results of this survey in addition to the biological data collected in wetlands from 2016-2018 will be considered throughout the development of the KBIC Wetland Monitoring Plan. We intend to ensure that wetland stewardship on and around the KBIC Reservation are consistent with community values, other Department plans within the Tribe, and are protective of the land and resources for seven generations and beyond.