

Recreation Plan for
KRAKOW TOWNSHIP

**Presque Isle County, Michigan
2018-2022**

**Krakow Township Board of Trustees
Adopted by the Township Board on February 13, 2018**



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CHAPTER 1

COMMUNITY DESCRIPTION

Because of the recreational character of Krakow Township and the abundance of water and forest resources, the Township wishes to formally plan for recreational facilities and activities.

A major factor in the provision of any service is the question of how projects will be funded. One possible source of funding for recreation projects is through grants available from Michigan Department of Natural Resources (MDNR). To become grant eligible for MDNR funding, a community must have an approved five-year recreation plan. Components of a MDNR approved recreation plan include:

- ❖ Community Description
- ❖ Administrative Structure
- ❖ Recreation Inventory, including accessibility assessment and grant status report
- ❖ Description of the Planning and Public Input Processes
- ❖ Goals and Objectives
- ❖ Basis for the Action Program
- ❖ Plan Adoption Documentation

COMMUNITY LOCATION

Krakow Township is located in Presque Isle County in the northeastern portion of Michigan's Lower Peninsula. A location map is provided as **Figure 1-1**. The Township has a land area of about 60 square miles (approximately 38,400 acres), which includes 5 square miles of inland water. The township borders on Lake Huron. Most of the County is rural in nature and is characterized by low population density. Where most of the northeast lower peninsula communities have lost population, Krakow gained. The 2010 Census registered a Township population of 705, an increase of 13.3% from 2000. This was the largest increase of all communities in Presque Isle County. Census figures reflect year-round population, but the Township has many seasonal residents as well. In fact, the vast majority of residences were not for permanent residents. Only 38.7% of the housing units in the Township were permanent residences. A rough estimate of seasonal residents can be made multiplying the number of seasonal homes (471) by the average number of persons per household (2.2) indicates there may be approximately 1,036 persons. The total estimated township residents in the summer might be 1,741 persons. This figure does not include those seasonal visitors or tourists staying in area motels, campgrounds or family homes. It is impossible to obtain accurate count of the number of the tourists who annually visit the area.

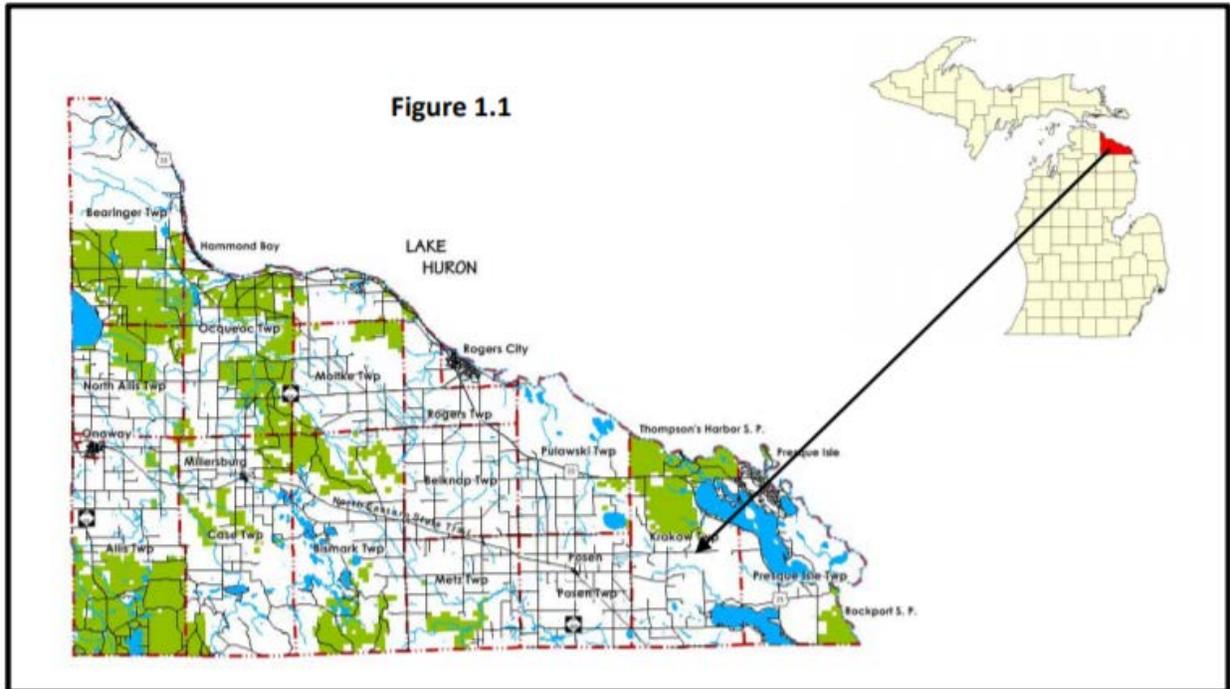


Figure 1.1 Geographic Location Map

A Brief History of Tourism and Recreation in Krakow Township and surrounding Presque Isle County

Krakow Township is one of 14 townships in Presque Isle County. To understand the recreation history of the township it helps to see it in the context of the larger county history. The following is an excerpt from Presque Isle County's Recreation Plan:

Tourism and recreation have been part of the fabric of Presque Isle County since the late 1800's. The Grand Lake area, located southeast of Rogers City along Lake Huron, was probably the first part of the County to actively solicit tourism businesses during the late 1800's, with several resort hotels being constructed along Grand Lake. Before the advent of good roads, tourist access was via steamboat from Lake Huron. The Fireside Inn and the Presque Isle Lodge, both dating from the early 20th Century, are examples of Grand Lake's early leadership in lake resort development. The County's woods and waters have hosted private hunting camps and hideaways dating from the early part of the 1900's.

Lighthouses were also essential to Great Lakes navigation and to early land settlement. Three lighthouses were built in Presque Isle County, and all remain intact as popular tourism attractions. The Presque Isle Lighthouse was built in 1840 and replaced in 1870; 40 Mile Point Lighthouse, north of Rogers City, was built in 1897. Monuments and museums exist in the County to preserve the community's maritime heritage and honor those who lost their lives in the many shipwreck disasters along the coast of Lake Huron.

Public forestlands are also a significant tourist and recreational attraction and are located throughout the area. These public holdings are largely the result of tax-reverted private lands coming back to State ownership after the physical ravages of fire or the economic ravages of the Depression.

The greatest attraction for residents and visitors of northern Michigan is the area's environment and the rural nature of this portion of the State. Recreational activities such as hunting, fishing, snowmobiling, boating and a multitude of other outdoor activities are enjoyed by residents and visitors alike. Given the abundance of water features, wetlands, forests and farm resources; the community's natural environment is a major part of the economic base and an income generator. At the same time, the environment places constraints on human activities. Certain critical and sensitive parts of the natural landscape cannot be altered without creating problems that are not easily corrected. Increased flooding and soil erosion due to the indiscriminate filling of wetlands and clearing of land are but two examples. Therefore, it is essential that any future development respect the different characteristics of the natural environment. This is important in preserving the attractiveness of this part of the State, preventing potential hazards related to undue alteration of the land, and maximizing the economic benefits of the tourist and recreation industry.

Regional Recreational Assets that impact Krakow Township

Krakow township is part of a regional recreational system which consists of a bluewater trail, Great Lakes Circle Tour, US 23 Heritage Route, and Lighthouse Trail, and extensive regional motorized and non-motorized trail systems. The North Eastern State Trail (NEST) extends 70 miles from Mackinaw City to Alpena. In the summer it is a non-motorized trail for hiking and biking. In the winter it is primarily a snowmobile trail. The trail follows the old Detroit & Mackinaw Railway line. This was the primary method of transporting timber in the late 1800's. The last rail line left in 1992 and has since become a regional recreational asset.

The shoreline of Lake Huron is called the Lake Huron Flyway and bird census data is used as a litmus test for the health of the shoreline environment. This is an opportunity to attract birding visitors and market related attractions to this user group.

Thompson's Harbor State Park

A significant recreation destination in Krakow Township is Thompson's Harbor State Park. Considered a rustic park, visitors enjoy 7.5 miles of undeveloped shoreline and 5,270 acres of second growth forest, deep sand dunes, and limestone cobble beaches. Many primitive hiking trails thread through the park. There are endangered species such as the Dwarf Lake Iris and Hine's emerald dragonfly.

The park offers opportunities for hiking, wildlife viewing, hunting, trapping, birding, and cross-country skiing. There are many historical artifacts including the wreck of the schooner American Union, which is accessible by kayak, snorkeling, and diving. Remnants of lumbering, shipping and farming as well as Native American artifacts exist throughout the park.

The Friends of Thompson Harbor State Park is a 501(c)3 non-profit association which assists with promotion and preservation of the park. They assist with maintaining the many trails in the park to keep them clear for hikers.



Thompson’s Harbor has a very high prevalence of species of special concern, endangered species, threatened species, and exemplary natural communities.

Climate

The climate is a factor in recreation planning. Krakow Township’s climate is part of its appeal as a place to live and spend leisure time. The Township’s climatic conditions are best described as long cold winters and moderate warm summers. The year round climate is heavily influenced by Lake Huron, particularly in coastal communities like Krakow Township. Lake Huron acts like a large hot water bottle in the fall, warming the nearby land area and prolonging the growing season. In the spring, Lake Huron has the opposite effect of cooling the adjacent land area and depressing the springtime warm-up. Further inland, the lake moderating effect diminishes. Local topography can influence temperatures and associated frost conditions.

The frost-free season is typically June 1st to September 12th, which provides for an average 104-day growing season. The mean annual temperature for Presque Isle County is 43.9° F. In the winter the average temperature is 20.1° F, with the average minimum daily temperature of 11.7° F. The lowest temperature on

record is minus 35° F. In the summer the average daily temperature is 78.8° F. The highest recorded summer temperature is 107° F. The average annual precipitation, including snowfall, is 31 inches; nearly 19 inches of the precipitation occurs as rainfall during the growing season of April through September. The average annual snowfall is 98 inches.

Geology and Landforms

The geology of Krakow Township, as well as the entire northern Lower Peninsula, can be described in terms of the surface geology (glacial landforms created thousands of years ago) and bedrock geology (sedimentary bedrock laid down over 300 million years ago). The hills, valleys, wetlands, forests, lakes and rivers all attribute their presence and location in the township to the surficial and bedrock geology. For a detailed review of the township's geology please review the Township's recent 2014 Master Plan. Generally, the township enjoys a wide variety from active sand dunes (Thompson's Harbor State Park), forests, and some prime farmland.

Water Resources

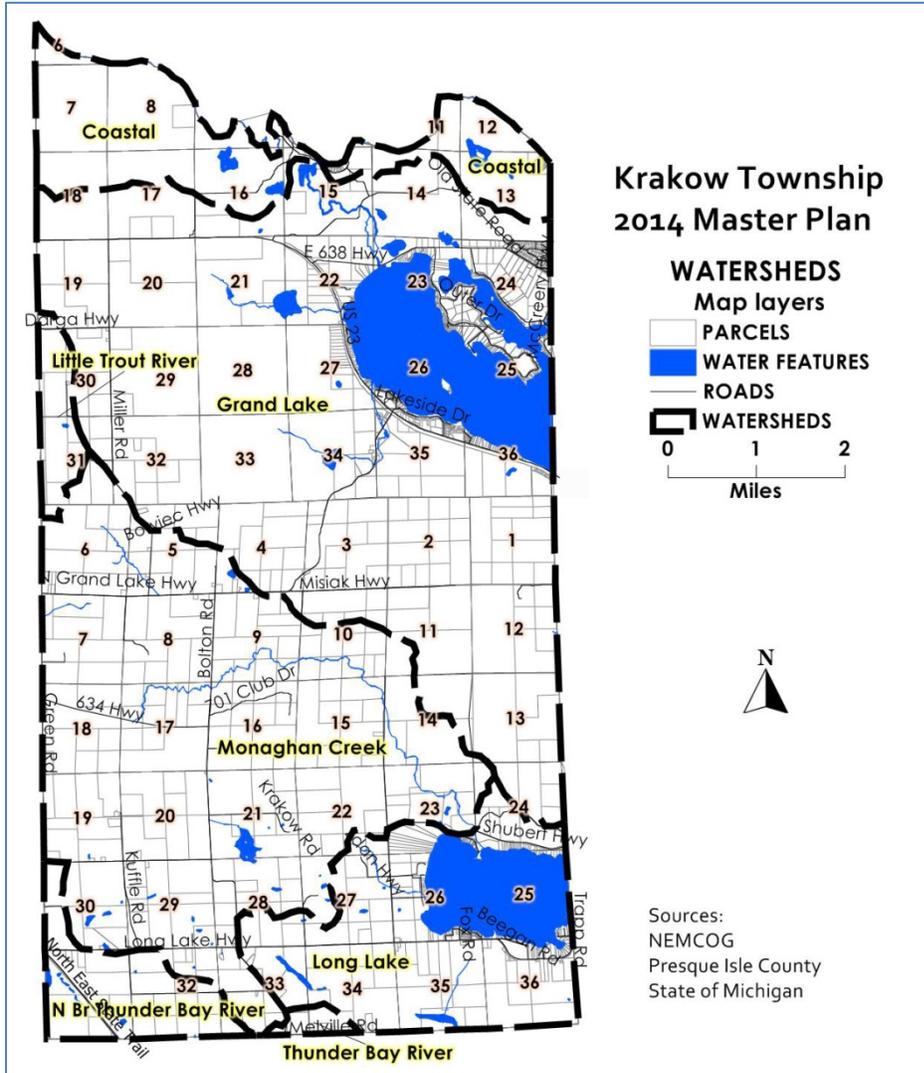
For detailed information about water resources, please see the 2014 Krakow Township Master Plan. The following is an abbreviated introduction to this resource.

Surface Water

Quality of life and economic base are directly linked to surface water resources. Maintaining high quality surface water is integral to the long term well-being of the community. Streams and lakes provide scenic values and recreational opportunities for residents and visitors as well as critical habitat elements for a wide range of fish and wildlife species. In fact, the tax base and economic base are directly attributed to the abundance of surface water resources in the community. Numerous lakes, streams and swamps are found in Krakow Township. These smaller bodies of water are characterized by seasonal water level fluctuations and various stages of vegetation encroachment. Streams function as resource connections between lakes and wetlands.

Of course, the largest surface water resource in the region is Lake Huron. The Great Lakes are the largest system of fresh, surface water on Earth, containing roughly 18 percent of the world supply. Only the polar ice caps contain more fresh water. Lake Huron is the second largest of the five Great Lakes in surface area (23,000 square miles). However, due to its many islands and inlets, it has the greatest length of shoreline at 3,827 miles, over 1,000 miles more than Lake Superior, which is the largest in surface area.

Two primary water features are Grand Lake (5,821 acres) and Long Lake (5,652 acres), both partially located in the Township. Both lakes have legal lake levels established by the circuit courts. Other named lakes include Clinton Lake (32 acres), Duck Lake (7 acres), Mindack Lake (35 acres), and Trapp Lake (13 acres). According to map files there are an additional 61 small lakes, ponds and floodings in the Township that account for another 177 acres of water and open marshes. The following is a map of the water features and watersheds.



There are numerous small creeks and drainages. The named waterways include Clinton Creek, Monaghan Creek, Warren Creek, Schalks Creek, Schaut Creek, Schubert Creek and the outlet of Grand Lake. No water quality data is available for the streams.

Fish and Wildlife Resources

The predominance of forests, wetlands and surface water makes Krakow Township home to many species of fish and wildlife. The Lake Huron fisheries have undergone significant shifts over the last century. Construction of the Wellington Canal in 1919 both opened the Great Lakes to ocean going vessels and opened the door to aquatic non-native and invasive species. First, the sea lamprey decimated native species such as lake trout, lake whitefish, chub, and lake herring, which were already under stress from over fishing and pollution. Loss of these predators allowed alewives, another invasive species, to explode in population and further upset the lake's ecosystem by negatively impacting other native species. Introduction of salmon into the Great Lakes brought the alewives population under control and reestablished an important sport

and commercial fisheries. The numerous salmon tournaments and charter fishing businesses on Lake Huron were a testament to this high quality fishery.

Grand Lake

Grand Lake has a relatively long survey history that describes the fish community since 1950. The current 2004 survey of Grand Lake was the most comprehensive fisheries survey of the lake given that more fish were collected than any previous survey. The percent composition of major predators (walleye, northern pike, and smallmouth bass) by number decreased from 51.5% in 1981, to 40.6% in 1995, and finally to 27.1% in 2004. This was especially apparent for northern pike, which had percentages by number of 12.3%, 2.7%, and 1.1% for 1981, 1995, and 2004, respectively.

The apparent trend for predators was contrasted by a trend of increasing prey abundance (Figure 8). The total percentage of suckers, panfish, and minnows (combined, by number) increased from 47.9% in 1981, to 52.1% in 1995, to 70.7% in 2004. Yellow perch are the only individual prey species that showed a distinct trend over the three surveys, making up 0.7%, 0.8%, and 18.4% by number, respectively. Although suckers did not show a trend across the three surveys, they made up the highest percentage of the total catch in 2004 at 36.3%.

In general, walleye size structure in Grand Lake was below average when compared to other large lakes. Based on the observed distribution of lengths, walleyes in Grand Lake are unlikely to attain lengths much greater than 24 inches, though there is the potential to reach 28 inches. There was an apparent positive trend in the size structure of northern pike from the time of the historic (1981 and 1995) spring surveys to the 2004 survey. The percentages of northern pike 24 inches or larger were 15%, 35%, and 49%, respectively. Currently, the size structure of northern pike in Grand Lake is above average. The size structure of smallmouth bass in Grand Lake appeared to be very good. Smallmouth bass in Grand Lake are likely to attain lengths of 17 inches, and have the potential to reach 20 inches.

Angler Survey: The fishery of Grand Lake is dominated by yellow perch, which comprised 85% of the total annual harvest, and 88% of the released fish. Smallmouth bass offer the best angling opportunity for a large predator, and were the second most commonly harvested and released species, comprising 6% of the total annual harvest, and 8% of the released fish. Walleye and northern pike do not appear to present much angling opportunity, though some anglers likely target them at certain times of the year.

The number of fish harvested per acre in Grand Lake was below average for other large lakes in Michigan, which is a result of low fishing effort on a lake with low productivity. Grand Lake is primarily a smallmouth bass and perch fishery, with less important walleye and northern pike fisheries. The yellow perch fishery in Grand Lake is rather good, but is still less productive (harvest = 1.55 per acre) than the average (3.46) and median (2.15) for twelve large lakes surveyed recently. Given the relatively high abundance of prey such as yellow perch and white suckers, the predator population could tolerate some type of augmentation. Since the smallmouth bass population is adequate, and the walleye population has slow growth, it would make sense to supplement the northern pike population. This may be achieved through more frequent operation of the spawning marsh, though there may be another longer-term solution.

Long Lake

Fish community surveys and observations are noted for Long Lake dating back to the 1920s. Field investigations in 1925 and 1926 found a fish community similar to what is found in Long Lake today.

Bluegills were noted as rare, while some sunfish (pumpkinseeds) were present. Rock bass, northern pike, walleyes, and yellow perch were common. Interestingly, reports of lake whitefish spearing were noted. Overall, the fish community of Long Lake has displayed consistent species composition over the last eighty years. In our spring 2004 survey, we likely caught more large, mature fish of several species than would normally be caught in surveys that have historically been conducted later in spring or summer. This includes spring spawners such as walleyes, northern pike, white sucker, and smallmouth bass. Additionally, because of the mesh-size bias, smaller fish were not represented in our sample in proportion to their true abundance in the lake.

The size structure of walleyes in our spring survey (86% legal size) was above the average of legal-size walleyes (69%) in spring surveys for 14 populations surveyed under the Large Lakes Program. Based on past surveys and the current survey, walleyes in Long Lake rarely attain lengths much greater than 25 inches. The size structure of northern pike in our spring survey (35% legal size) was near the average (28%) of legal-size northern pike in spring surveys for thirteen populations surveyed under the Large Lakes Program. While we did not collect a large number of northern pike, the number of large (≥ 36 inch) fish was notable, and northern pike in Long Lake have the potential to reach trophy size. The size structure of smallmouth bass in our spring survey (66% legal size) was similar to the average percentage (65%) of legal-size smallmouth bass in spring surveys for twelve populations surveyed under the Large Lakes Program. Currently, smallmouth bass in Long Lake are likely to attain lengths of 18 inches and have the potential to reach 20 inches.

Angler Survey: Summary.—The fishery of Long Lake is dominated by yellow perch and smallmouth bass, which comprised 93% of the total annual harvest. The open-water period accounted for 74% of the annual yellow perch harvest, and harvest was highest in September/October. Smallmouth bass were harvested primarily during the open-water period, and provided consistent catch rates throughout the year. Walleye and northern pike contributed to the fishery of Long Lake, but to a much lesser extent than yellow perch and smallmouth bass. Walleyes were harvested throughout the year, but most readily from July through October. Catch rate for walleye was highest in September/October and overall it was low. Overall, the fishery of Long Lake is not very diverse, especially in the winter when yellow perch, walleye, and northern pike were the only species harvested. A few other species provide angling opportunity throughout the year, though not to any large degree.

Walleyes are the second most abundant large predator in Long Lake. However, the walleye fishery in 2004–05 was below-average with respect to other large lakes in Michigan. Northern pike had the lowest abundance of the three predator species targeted in this survey. The population in Long Lake has an average density of legal-size northern pike, but a low density of adult northern pike. Contrary to the walleye and northern pike fisheries, the smallmouth bass fishery in Long Lake is exceptional.

Deer, rabbit, grouse and woodcock are abundant in the Township. Bear, coyote, bobcat, fox and turkey have small to moderate populations that are growing. Wildlife is a resource that brings in hunters and tourists. October and November bring many hunters to the Township for small game hunting, bear and bow season (deer), peaking sharply in mid-November with the opening day of deer (rifle) season.

The diverse assortment of upland hardwoods and pines, lowland hardwood forests, conifer swamps, coastal marshes, fens, cobble beaches, swamps, bogs, streams and lakes provide endless opportunities for viewing birds, waterfowl, reptiles, and even insects. Thompson's Harbor State Park and Rockport State Park are popular birding sites. Coastal fens and marshes are great areas for amateur entomologists, especially those looking for dragonflies. Migrating songbirds follow the coastline in the spring and rely on a unique food source to sustain their energy for the long flight further northward.

Conifer forests along the shoreline, warmed by the spring sun, produce massive hatches of midges (a small flying insect), which the song birds feast upon. The richness in biodiversity of the coastal regions is demonstrated in the following section on rare species.

Natural Features Inventory

A Natural Features Inventory is included in the Krakow Township Master Plan 2014. For purposes of this Recreation Plan, we include the Natural Resource Inventory for

The following table is the Presque Isle County Element Lists from the Natural Features Inventory. According to the Natural Features Inventory:

“The lists include all elements (species and natural communities) for which locations have been recorded in MNFI's database. Information from the database cannot provide a definitive statement on the presence, absence, or condition of the natural features in any given locality, since much of the state has not been specifically or thoroughly surveyed for their occurrence and the conditions at previously surveyed sites are constantly changing. The County Elements Lists should be used as a reference of which natural features currently or historically were recorded in the county and should be considered when developing land use plans. Included in the list are scientific name, common name, element type, federal status, and state status for each element.”

Research has found Great Lakes coastal areas to be biologically rich with the high number of species and communities of special interest (rare, special concern, threatened and endangered). If extensive field surveys were conducted, it is expected a greater number of elements would be identified.

Presque Isle County Threatened and Endangered Species				
Scientific Name	Common Name	Type	Federal Status*	State Status**
<i>Adlumia fungosa</i>	Climbing fumitory	Vascular Plant		SC
Alvar	Alkaline scrub/grassland	Community		
<i>Appalachia arcana</i>	Secretive locust	Invertebrate		SC
<i>Armoracia lacustris</i>	Lake cress	Vascular Plant		T
<i>Astragalus neglectus</i>	Cooper's milk-vetch	Vascular Plant		SC
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird		T
<i>Cacalia plantaginea</i>	Prairie indian-plantain	Vascular Plant		SC
<i>Calypso bulbosa</i>	Calypso or fairy-slipper	Vascular Plant		T
<i>Carex concinna</i>	Beauty sedge	Vascular Plant		SC
<i>Carex richardsonii</i>	Richardson's sedge	Vascular Plant		SC
<i>Carex scirpoidea</i>	Bulrush sedge	Vascular Plant		T
<i>Cirsium hillii</i>	Hill's thistle	Vascular Plant		SC
<i>Cirsium pitcheri</i>	Pitcher's thistle	Vascular Plant	LT	T
	Cobble beach	Community		
<i>Cypripedium arietinum</i>	Ram's head lady's-slipper	Vascular Plant		SC
<i>Dendroica discolor</i>	Prairie warbler	Bird		E
Devonian earth history	Geographical feature	Geologic		
<i>Drosera anglica</i>	English sundew	Vascular Plant		SC
Drumlin	Geographical feature	Geologic		
<i>Eleocharis engelmannii</i>	Engelmann's spike-rush	Vascular Plant		SC
<i>Emydoidea blandingii</i>	Blanding's turtle	Reptile		SC
Esker	Geographical feature	Geologic		
<i>Gavia immer</i>	Common loon	Bird		T
Great blue heron rookery	Great blue heron rookery	Other Element		
Great lakes marsh		Community		
<i>Haliaeetus leucocephalus</i>	Bald eagle	Bird	(PS:LT,PDL)	T
<i>Incisalia henrici</i>	Henry's elfin	Invertebrate		SC
Intermittent wetland	Infertile pond/marsh great lakes	Community		
<i>Iris lacustris</i>	Dwarf lake iris	Vascular Plant	LT	T
<i>Juncus militaris</i>	Bayonet rush	Vascular Plant		T
Karst	Geographical feature	Geologic		

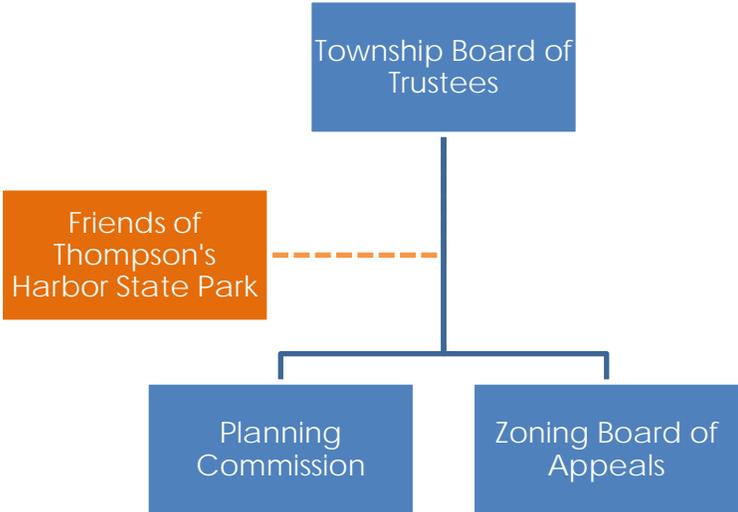
Source: Michigan Natural Feature Inventory, Michigan Department of Natural Resources, Wildlife Division
 *LE = Listed endangered, LT = Listed threatened, PDL = Proposed delist, PS = Partial status (federally listed in only part of its range), C = Species being considered for federal status.
 ** E = Endangered, T = Threatened, SC = Special concern.

Table 4.3 Continued				
Scientific Name	Common Name	Type	Federal Status*	State Status**
<i>Lanius ludovicianus migrans</i>	Migrant loggerhead shrike	Bird		E
<i>Mesodon sayanus</i>	Spike-lip crater	Invertebrate		SC
Northern fen	Alkaline shrub/herb fen	Community		
<i>Notropis anogenus</i>	Pug-nosed shiner	Fish		SC
<i>Pandion haliaetus</i>	Osprey	Bird		T
<i>Pinguicula vulgaris</i>	Butterwort	Vascular Plant		SC
Pitted outwash	Geographical feature	Geologic		
<i>Potamogeton hillii</i>	Hill's pondweed	Vascular Plant		T
<i>Prosapia ignipectus</i>	Red-legged spittlebug	Invertebrate		SC
<i>Pterospora andromedea</i>	Pine-drops	Vascular Plant		T
<i>Pyrgus wyandot</i>	Grizzled skipper	Invertebrate		SC
Rich conifer swamp		Community		
<i>Sistrurus catenatus catenatus</i>	Eastern Mississauga	Reptile	C	SC
<i>Solidago houghtonii</i>	Houghton's goldenrod	Vascular Plant	LT	T
<i>Somatochlora hineana</i>	Hine's emerald	Invertebrate	LE	E
<i>Sterna hirundo</i>	Common tern	Bird		T
<i>Tanacetum huronense</i>	Lake Huron tansy	Vascular Plant		T
<i>Trimerotropis huroniana</i>	Lake Huron locust	Invertebrate		T
Wooded dune and swale complex		Community		
Source: Michigan Natural Feature Inventory, Michigan Department of Natural Resources, Wildlife Division *LE = Listed endangered, LT = Listed threatened, PDL = Proposed delist, PS = Partial status (federally listed in only part of its range), C = Species being considered for federal status. ** E = Endangered, T = Threatened, SC = Special concern.				

CHAPTER 2

ADMINISTRATIVE STRUCTURE

Krakow Township is a civil township in Presque Isle County, Michigan. The township’s legislative body is the Board of Trustees. The Township has its own zoning and, therefore, has an appointed Planning Commission as well as a Zoning Board of Appeals. The township’s Planning Commission participated in the 2017 Township Master Plan process, parts of which were incorporated into this plan. The township does not have a specific board or committee focused on parks and recreation since there are no township-owned parks or recreation facilities at this time.



Partnerships with other parks and recreation entities

The Township Supervisor is a member of the Friends of Thompson State Park, which is a separate non-profit organization. The township provides links and information regarding this organization on its website.

Responsibilities related to parks and recreation

The board responsible for funds related to parks and recreation, accepting grants and purchasing land on behalf of the township is the Township Board of Trustees.

Township Budget related to Parks and Recreation

REVENUES	Actual 2016/2017	Proposed 2017/2018
Opening Fund Balance	\$ 156,663.51	\$ 132,770.56
Parks/Recreation Donations	\$ -	\$ -
EXPENDITURES		
Township Hall & Grounds	\$ 2,798.83	\$ 4,400.00
Capital Improvements	\$ 475.00	\$ 500.00
Parks & Recreation	\$ -	\$ 1,000.00

CHAPTER 3

INVENTORY OF EXISTING PARKS AND RECREATION FACILITIES

NOTE: There are no township-owned parks or recreation facilities. The following are parks within the township owned and operated by other entities.

Fletcher-Gilcrest Park

Type: Community Park

Service Area: Presque Isle County

Barrier-Free Accessibility: 1 - none of the facilities meet accessibility guidelines Fletcher Gilcrest Park, located on Grand Lake and owned by the Presque Isle County Road Commission, contains a boat ramp and parking area. In addition, a pavilion was built by the Grand Lake Sportsmen's Club and Presque Isle Corporation in conjunction with the Presque Isle County Road Commission and was dedicated in August of 1998. The pavilion is convertible from open air to closed. While the pavilion floor is at ground level, no paved walkway exists between the parking lot and the pavilion. In addition, pit toilets are available which are not barrier-free. A small storage shed is also located on the property. In the winter, a free fishing derby is held at the park with prizes available in the pavilion.

Thompson's Harbor State Park

Situated on Lake Huron in northern Krakow Township, this undeveloped park features more than 5,000 acres and 7 ½ miles of Lake Huron shoreline. The site is home to the endangered Dwarf Lake Iris. There are 9 structures in the park: 4 vault toilets, 2 cabins, 1 garage, and 2 wood storage sheds. The park has interpretive panels throughout the trail system and the park. Visitors may also participate in the following activities:

- Hunting
- Nature viewing
- Fishing
- Biking—on existing roads only
- Hiking/cross-country skiing on 6 miles of trail
- Two rustic cabins- the Cedar Haven (Universally Accessible) and Stone Path - will sleep up to 6 people with two sets of bunk beds and a pull-out couch. Each has a gas stove and lanterns, outdoor hand pumps and vault toilets.

Inland Lake Access Sites

- **Grand Lake and Long Lake sites along US 23**—MDOT owned, Road Commission maintained in Krakow and Presque Isle Townships
- **Grand Lake sites on Black Bass Road and County Road 638**—Road Commission maintained in Krakow Township

Lake Huron Access Sites

- Thompson's Harbor State Park

TRAILS

In 2013 Governor Snyder stated that he wanted Michigan to be known as the Trails State. Trails create opportunities to improve our economy through tourism and to preserve open space. They also increase the opportunities for improved fitness. In Krakow Township there are trails within Thompson’s Harbor State Park as well as a section of the North Eastern State Trail that crosses the southwest corner of the township.

North Eastern State Trail (NEST) —snowmobiling from Dec. 1 to March 31; multi-use non-motorized rest of year; the trail is a 71-mile rail trail which connects Alpena to Cheboygan. Construction was completed in 2011 with a 10’ crushed limestone surface and two-foot shoulders, new safety signs, access control and mile marker posts. The MDNR, which owns and manages the trail, has been working with the Michigan Department of Transportation (MDOT) which completed the engineering for the project and is responsible for project oversight. The Top of Michigan Trails Council (TOMTC) helped create the funding package for the trail project including 60% through a Federal Transportation Grant, 20% from MDOT, 15% from the DNR via the Michigan Natural Resources Trust Fund Grant and 5% from local units of government.

Thompson’s Harbor State Park Trail System—bicycles on designated roads; hiking/cross-country skiing on three loops for a total of 6.4 miles.

Sunrise Coast Birding Trail – orange signs have been placed along this designated bird-watching trail, which follows US-23 along the coast of Lake Huron. Birders can visit the several parks and viewpoints along the coast to spot many species of birds, common or rare, or local or migratory.

Lake/River/Stream	Location	Size in Acres, distance in miles	Description	Use
Clinton Lake	Krakow T33N-R7E 21	20 acres	Mucky, shallow	waterfowl
Long Lake	Krakow T33N-R7E, Presque Isle T33N-R8E many sections	5,652 acres in both Presque Isle and Alpena Counties	Cold, spring fed, with deep areas	Bass, BG, perch, walleye, pike, whitefish
Trapp Lake	Krakow T33N-R7E 33	25 acres	Deep muck and stony	Waterfowl and pan fish
Mindack Lake	Krakow T33N-R7E 35	80 acres in both counties	Cold, spring fed	Pan fish
Grand Lake	Krakow T34N-R7E, Presque Isle T34N-R8E many sections	6,080 acres	Shallow with some deep areas	Pike, walleye, pan fish
Clinton River	Krakow Twp flows into Long Lake	4 miles	Very variable flow, may dry up during prolonged dry periods	Waterfowl
Monaghan Creek	Krakow Twp flows into Long Lake	6.5 miles	Krakow Twp flows into Long Lake	Waterfowl

CHAPTER 4

DESCRIPTION OF PUBLIC INPUT, PLANNING PROCESS

The township of Krakow owns its township hall property and building. The township looks at its recreational assets as partnerships with the State of Michigan's Department of Natural Resources and other state agencies because its lakes and state park are critical to the future of recreation in the township. The planning processes of both the recent Township Master Plan and the Recreation Plan included representatives of the Friends of Thompson's Harbor State Park, the Michigan DNR, and Township Government leaders as well as residents.

The Township Board of Trustees oversaw this planning process first by including recreational planning goals and objectives in the Township Master Plan, adopted in 2014. The recreational planning related goals and objectives were reviewed by the Township leaders and refined for this Recreation Plan.

Other information was integrated from the Presque Isle County Recreation Plan, adopted very recently in January of 2017.

Methods of Public Input

On November 14th and December 12th of 2017 the Township Board of Trustees discussed the Recreation Plan and planning process and agreed to do a survey. This survey was distributed using Survey Monkey online services. This survey was advertised via the Township website as well as emailed announcements distributed to Township contacts and appointed officials.

On January 9th, 2018 the Township Board of Trustees discussed the Recreation Plan and voted to release the draft Recreation Plan for public review for no less than 30 days. They also scheduled the public hearing for February 13, 2018.

At the February 13, 2018 public hearing there were 9 people in attendance. There was some discussion about potential grant opportunities and questions about what kind of projects would be eligible for Natural Resources Trust Fund grants. The Township Board stated they appreciated the comments from the survey.

CHAPTER 5

RECREATION GOALS AND OBJECTIVES

After reviewing the Township's existing Township Master Plan, community input and considering the existing conditions background information, the Township's Board of Trustees established goals and objectives. These goals and objectives will provide guidance to the Krakow Township when developing recreation amenities. Many of these goals are coordinated with the existing Township Master Plan and reflect the recreation-specific objectives that the township will strive to achieve.

Quality of Life

Goal: Maintain and enhance the overall quality of life of Krakow Township by developing Quality, Sustainable Recreation Attractions.

Objectives:

1. Promote the use of a Community Center for social, cultural and recreation programs to serve the residents of the township.
2. Promote the quality of life in Krakow Township in order to recruit new families to the Township.
3. Work cooperatively with agencies and organizations to establish community social programs and events oriented towards different age groups, To provide a variety of community recreational programs for both seasonal and year-round residents.

Planning and Community Development

Goal: Guide future development in a manner that will protect existing development; preserve rural community character; and conserve natural resources and environment, yet meets the long-term needs of the community.

Objectives:

1. Control the location of new development by designating appropriate areas for new residential, commercial, industrial, and resort/recreational land uses.
2. Promote walkable communities by developing trails, sidewalks and safe pedestrian crosswalks in developed areas of the Township.

Infrastructure and Community Facilities

Goal: Improve the Township's transportation systems, community facilities, public utilities and recreation facilities to accommodate the needs of residents and visitors.

Objectives:

1. Develop a capital improvements plan to address the long term needs for road improvements, township hall maintenance, fire protection, emergency services, and community recreation.
2. Investigate a wayfinding program designed to enhance tourism opportunities and promotion.
3. Promote, maintain, and expand recreational trails by working with County Road Commission, MDNR, MDOT, and user groups to connect community assets and connect with regional trail systems.

Recreation and Public Lands

Goal: Preserve and improve access to public lands and water, and establish recreational trails and improve public parks for the enjoyment of residents, visitors and future generations.

Objectives:

1. Develop a Township Recreation Plan that identifies and prioritizes needed community recreation facilities.
2. Retain and where appropriate acquire public water access sites for residents, seasonal residents and visitors.
3. Establish easily accessible, smaller "local" parks in residential areas to meet the needs of families with small children.
4. Pursue grants and outside funding sources for land acquisition and/or recreational development, either passive or active.
5. Seek improvements to achieve universal accessibility to public park and all recreation amenities.
6. Work with the regional, state and federal agencies to create and expand recreation trails such as water, x-country skiing, hiking, biking, horse riding, ORV and snowmobile trails in the area.
7. Support the development of non-motorized trails that connect parks, community centers and residential areas.
8. Through zoning and review procedures, proposed subdivisions, site condominiums, planned unit developments, commercial and industrial developments should be encouraged to provide or participate in the development of neighborhood parks and open space.
9. Encourage creative design and planning techniques such as PUD's, clustering and conservation easements, for all new development so as to maintain open space and scenic vistas.
10. Maintain communication with the Department of Natural Resources to provide input into the usage and management of the public lands within the Township.
11. Support the Department of Natural Resources activities related to improvements to Thompson's Harbor State Park, such as additions to the park, recreational activities, trails and trail connectivity with the State Parks as consistent with the management plans developed for those facilities.

Government

Goal: Provide services in an efficient, cost effective, environmentally responsible and caring manner to meet the needs of the residents, property owners, business people and visitors.

Objectives:

1. Maintain communication with the Department of Natural Resources to provide input into the usage and management of the public lands and parks within the Township.
2. Promote the involvement of volunteers in the government process.

Overall Resource Conservation Goal

Goal: The overall goal of the Resource Conservation Element is to preserve and maintain the ecological, visual, forest, wetland and scenic resources of the Township, preserve the environment and maintain and enhance the overall quality of life for Township residents.

Why protect nature in our community?

- Healthy, functioning natural areas provide recreational opportunities including hiking, fishing, bird watching, and nature study.
- Parks and open space enhance the economic value of the area. Open lands cost less in services than other uses, and add to the value of properties nearby.
- Spiritual Values – “A sense of place, a sense of wellbeing, a quiet place to look inward, feeling at one with the earth,” there are many ways people express the spiritual values associated with spending time in natural areas.

Collaboration

There are great benefits to communities working together. Watersheds, streams, ecological corridors and wildlife have a complete disregard for political boundaries. The interconnected web of life, the “green infrastructure” was established long before the land area was divided into political units. Without question, the actions of one community can have a direct impact on the resources in an adjacent community. Therefore, it is imperative that adjacent communities coordinate land use planning and development activities. Working together to protect critical area-wide resources and to improve and re-establish degraded ecological corridors is a win-win scenario for all communities.

Goal: Use a collaborative approach to protecting and managing natural systems by forming partnerships with local, regional, state and federal agencies, adjacent units of governments, county & township governments, and resource organizations.

Objectives:

1. Participate in organized efforts to manage and protect the community's natural and water resources including, state forest lands, Thompsons Harbor State Park, private forest lands, Grand Lake, Long Lake and Lake Huron.
2. Participate in organized efforts to manage and protect the community's natural and water resources, such as NRTH Citizens Advisory Committee, Thompson's Harbor State Park and Friends of Thompson's Harbor State Park.

CHAPTER 6

ACTION PROGRAM

ACTION PROGRAM	RATIONALE
<p>1. Create new boat launch. In partnership with State of Michigan, Thompson’s Harbor and Friends of Thompson’s Harbor group, determine location for new boat launch. Assist with locating land for boat launch on Long and Grand Lakes. Participate with the stakeholders in planning process. <i>Partners: DNR, Township, Friends</i> <i>Budget: unknown at this time</i></p>	<p>There are many boaters already enjoying the area. More and easier to find opportunities to launch in Krakow Township will provide more economic opportunities. A new launch will be designed appropriately for shoreline stabilization.</p>
<p>2. Seek more trails and trail connections. Determine feasibility of creating trail connector(s) between North Eastern State Trail, Thompson’s Harbor State Park, and waterfronts Lake Huron and inland lakes in the township. Participate in feasibility study process. <i>Partners: DNR, Township, Michigan Trails and Greenways Alliance, Top of Michigan Trails Council</i> <i>Budget: unknown at this time</i></p>	<p>Trails are a popular destination and reason for people moving to an area. They increase fitness. A connection between the existing state park trails and the North Eastern State Trail is important and beneficial to the Township.</p>
<p>3. Add amenities to Thompson’s Harbor State Park including additional walking trails and an improved entrance drive. <i>Partners: DNR, Township, Friends , Top of Michigan Trails Council</i> <i>Budget: unknown at this time</i></p>	<p>Provide for safe and accessible trailways and driveway entrance.</p>
<p>4. Ensure optimum recreation attractions along the popular US23 Heritage Route. <i>Partners: MDOT, US 23 Heritage Route Committee</i> <i>Budget: unknown at this time</i></p>	<p>Recreational opportunities along the waterfront are highly desirable and the township needs more accessible attractions along this highway to improve economic development.</p>
<p>5. Expand recreational opportunities for bicycling, birding, cycling, snowmobiling, geocaching, winter skiing, swimming, kayaking, and boating throughout the</p>	<p>Enhances access for residents and visitors to valuable natural resources and healthy activities.</p>

<p>township. <i>Partners: DNR, trails organizations, snowmobile grooming club, boaters</i> <i>Budget: unknown at this time</i></p>	
<p>6. Determine potential for attracting outdoor festivals to the area which highlight the natural resources and recreational opportunities. <i>Partners: US 23 Heritage Route Committee, Rogers City or Cheboygan Chambers of Commerce/Visitors' Bureau</i> <i>Budget: NA</i></p>	<p>Enhance the opportunities to create a community center which also focuses attention and civic engagement around the township's valuable natural resources.</p>
<p>7. Determine possible recreational and civic improvements to the Township Hall property. <i>Budget: Unknown at this time</i></p>	<p>Enhance accessibility and recreational opportunities for the community at the community's center.</p>
<p>8. Support the search for funding for universal accessibility to Fletcher-Gilcrest Park pavilion and similar accessibility improvements in all parks. <i>Budget: Unknown at this time</i></p>	<p>Enhance accessibility for all to this valuable community recreational resource.</p>

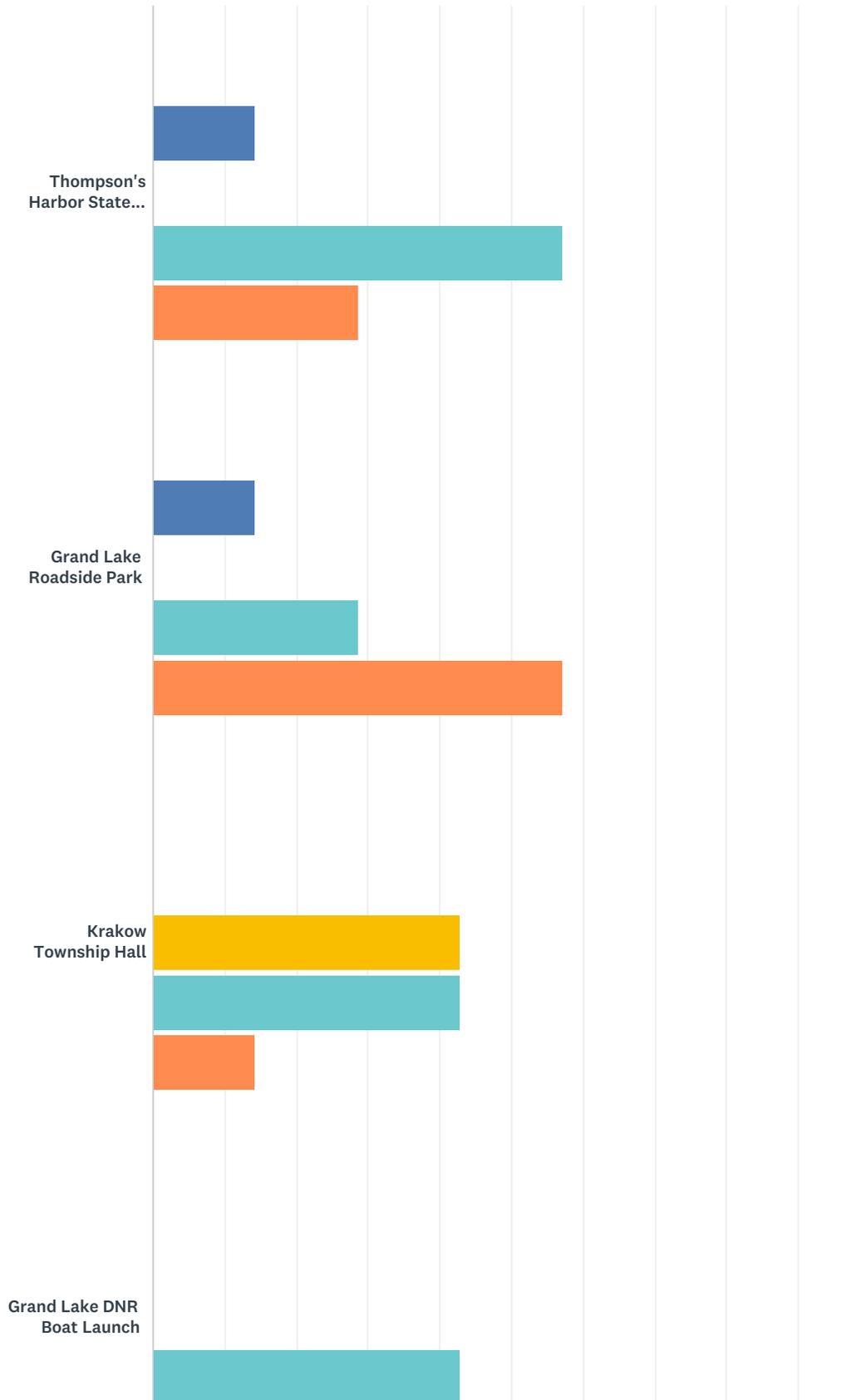
APPENDIX

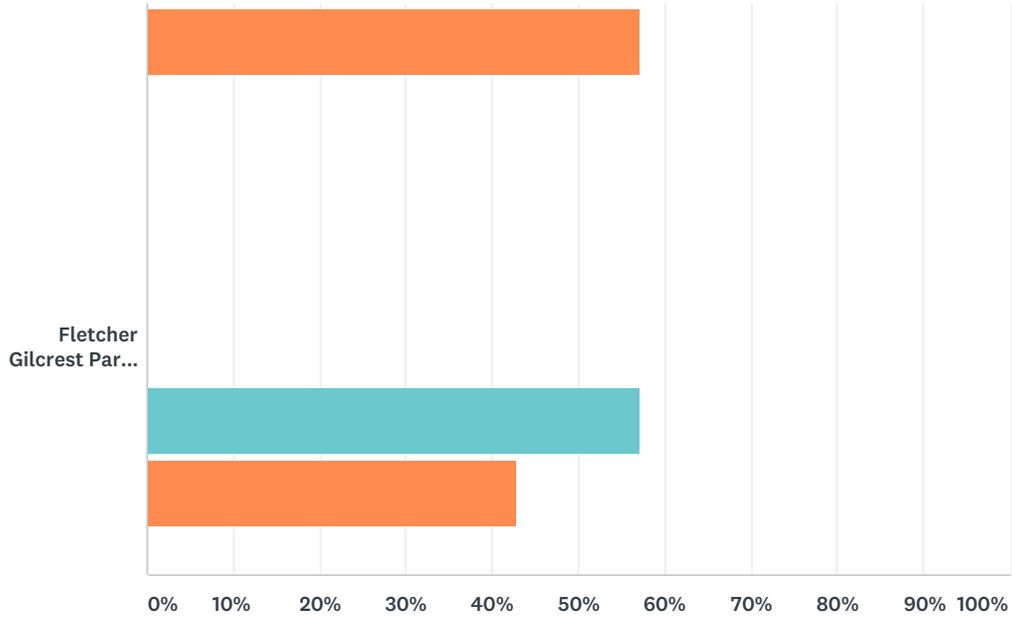
APPROVAL DOCUMENTS AND SUPPORTING MATERIAL

Survey responses summary as follows:

Q1 How often do you utilize the following facilities?

Answered: 7 Skipped: 0



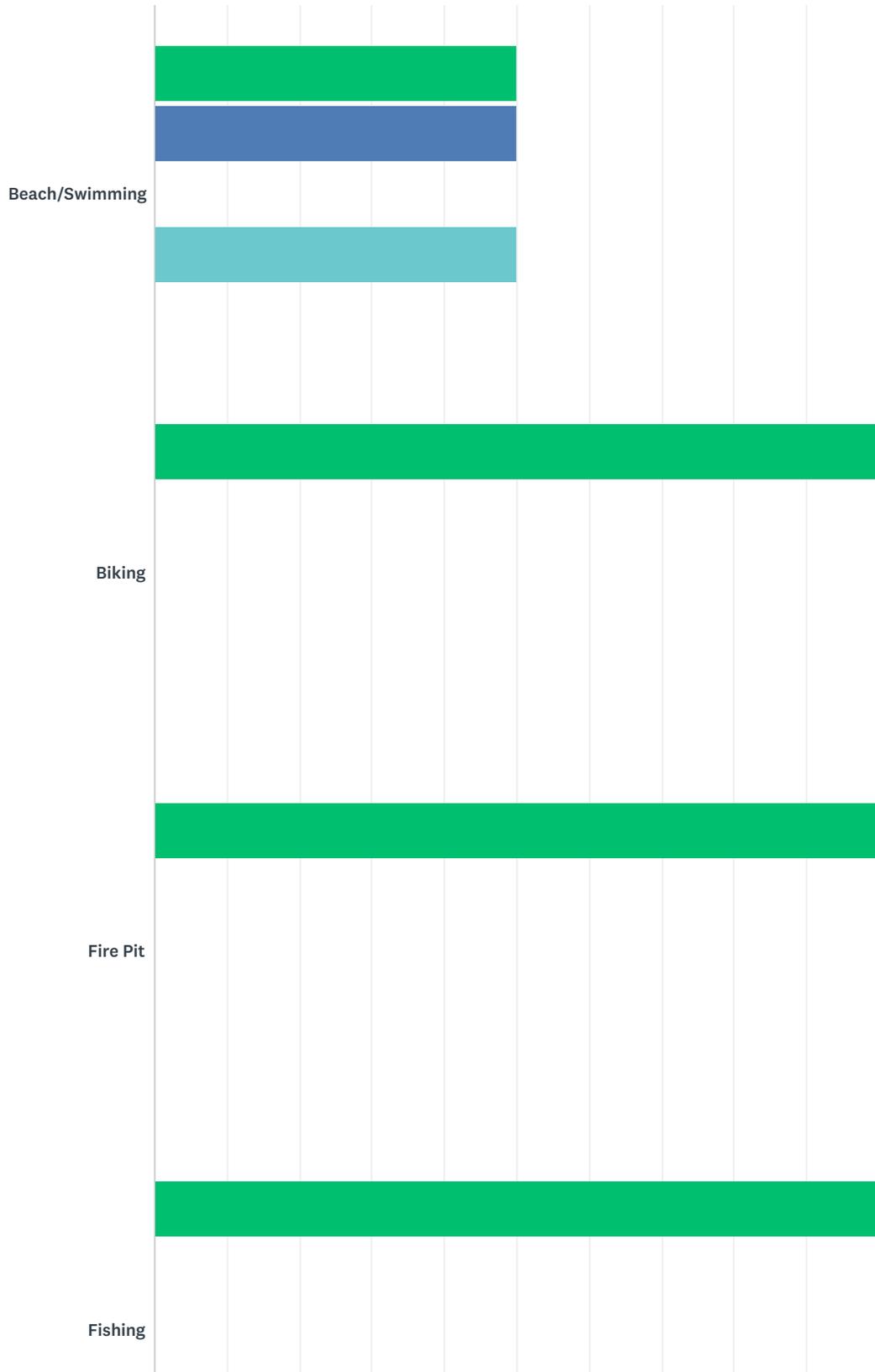


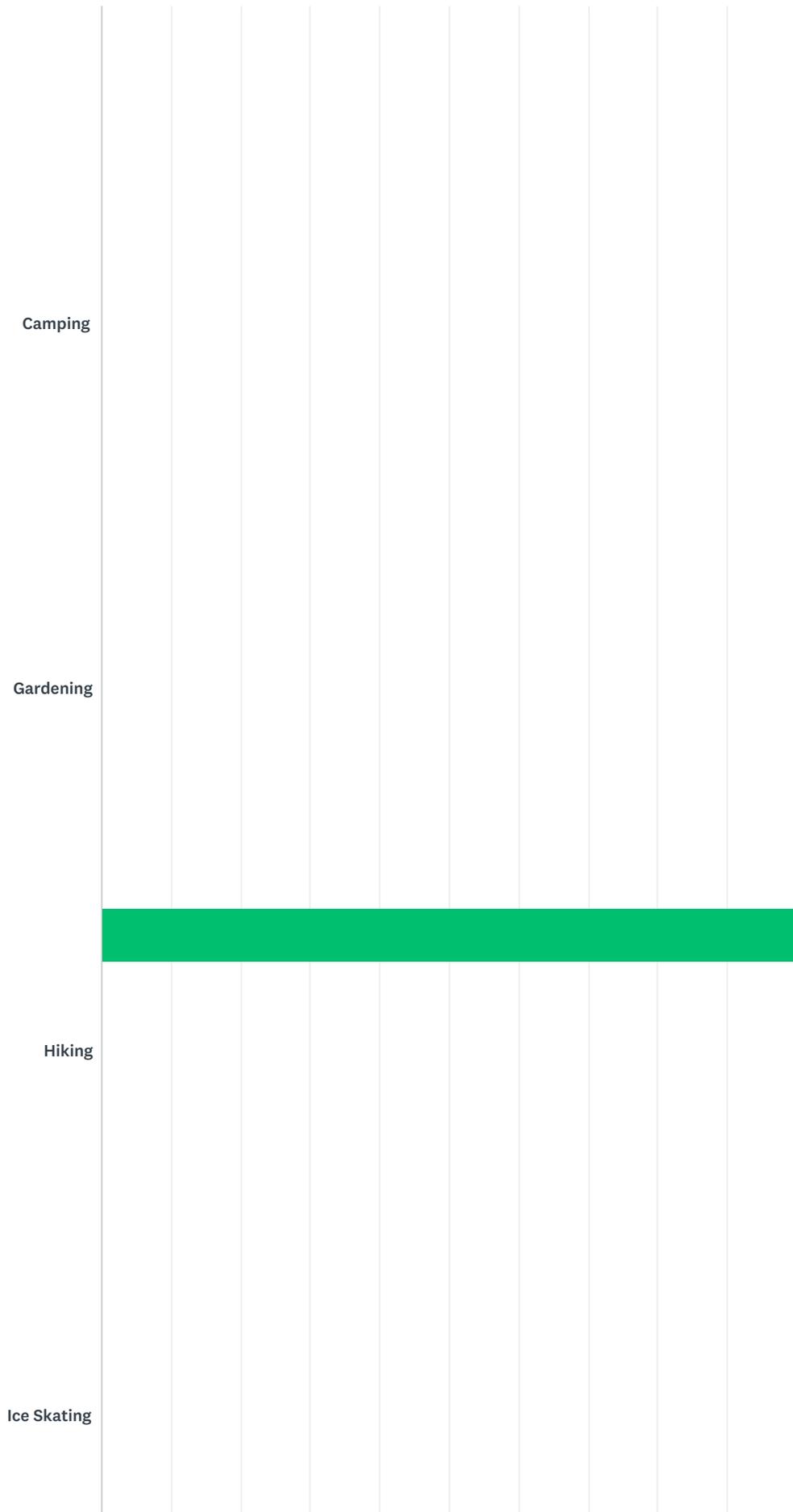
■ 2+ Times Per Week
 ■ Weekly
 ■ Monthly
 ■ Occasionally
 ■ Never

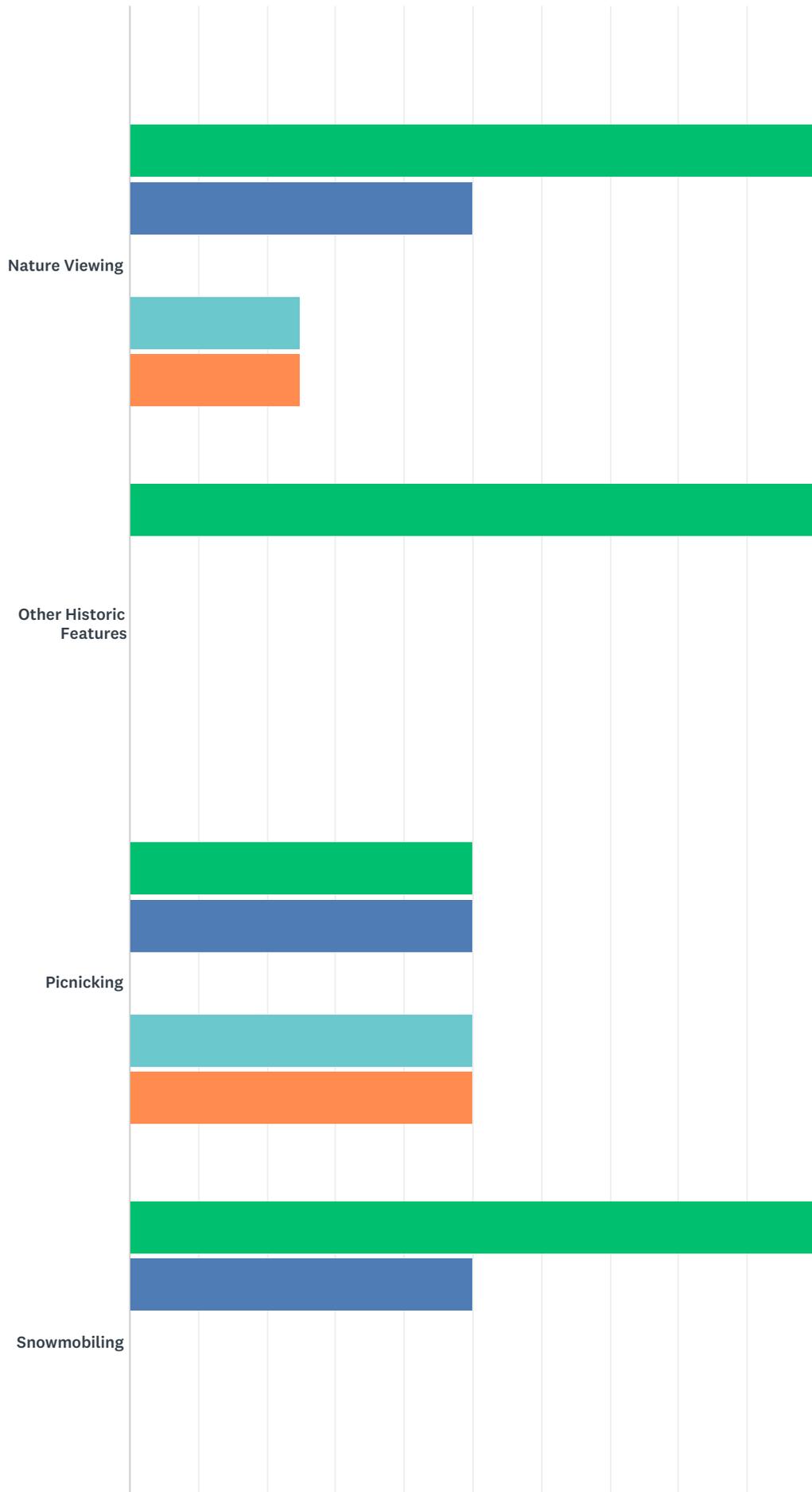
	2+ TIMES PER WEEK	WEEKLY	MONTHLY	OCCASIONALLY	NEVER	TOTAL
Thompson's Harbor State Park	0.00% 0	14.29% 1	0.00% 0	57.14% 4	28.57% 2	7
Grand Lake Roadside Park	0.00% 0	14.29% 1	0.00% 0	28.57% 2	57.14% 4	7
Krakow Township Hall	0.00% 0	0.00% 0	42.86% 3	42.86% 3	14.29% 1	7
Grand Lake DNR Boat Launch	0.00% 0	0.00% 0	0.00% 0	42.86% 3	57.14% 4	7
Fletcher Gilcrest Park Boat Launch	0.00% 0	0.00% 0	0.00% 0	57.14% 4	42.86% 3	7

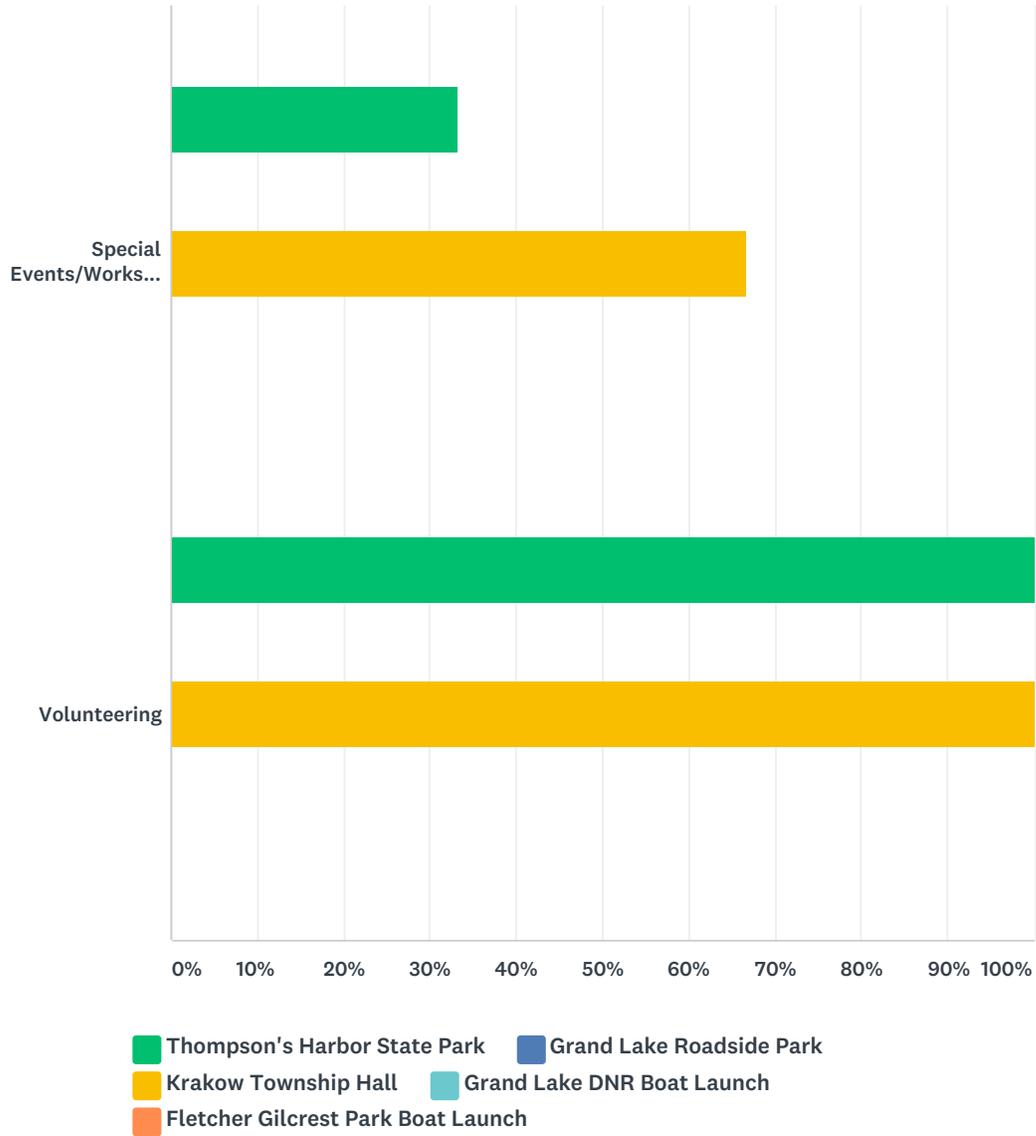
Q2 What activities do you participate in at the following recreational facilities? (Not all activities apply to each facility)

Answered: 6 Skipped: 1









	THOMPSON'S HARBOR STATE PARK	GRAND LAKE ROADSIDE PARK	KRAKOW TOWNSHIP HALL	GRAND LAKE DNR BOAT LAUNCH	FLETCHER GILCREST PARK BOAT LAUNCH	TOTAL RESPONDENTS
Beach/Swimming	50.00% 1	50.00% 1	0.00% 0	50.00% 1	0.00% 0	2
Biking	100.00% 3	0.00% 0	0.00% 0	0.00% 0	0.00% 0	3
Fire Pit	100.00% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1
Fishing	100.00% 2	0.00% 0	0.00% 0	0.00% 0	0.00% 0	2
Camping	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0
Gardening	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0
Hiking	100.00% 4	0.00% 0	0.00% 0	0.00% 0	0.00% 0	4
Ice Skating	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0

Krakow Township Recreation Plan Survey

SurveyMonkey

Nature Viewing	100.00% 4	50.00% 2	0.00% 0	25.00% 1	25.00% 1	4
Other Historic Features	100.00% 3	0.00% 0	0.00% 0	0.00% 0	0.00% 0	3
Picnicking	50.00% 1	50.00% 1	0.00% 0	50.00% 1	50.00% 1	2
Snowmobiling	100.00% 2	50.00% 1	0.00% 0	0.00% 0	0.00% 0	2
Special Events/Workshops	33.33% 1	0.00% 0	66.67% 2	0.00% 0	0.00% 0	3
Volunteering	100.00% 1	0.00% 0	100.00% 1	0.00% 0	0.00% 0	1

#	OTHER (PLEASE SPECIFY)	DATE
1	Voting at the hall, that is all that is available at the public building	12/24/2017 10:39 AM

Q3 What improvements do you feel are needed at Thompson's Harbor State Park?

Answered: 3 Skipped: 4

#	RESPONSES	DATE
1	none	12/29/2017 8:27 AM
2	A road you can drive a car on. Too many pot holes, making it impossible to get to the lake. Plus all you can do their is walk around. The cabins are way too much to rent	12/24/2017 10:47 AM
3	walking trails	12/18/2017 2:58 PM

Q4 What improvements do you feel are needed at the Grand Lake Roadside Park?

Answered: 2 Skipped: 5

#	RESPONSES	DATE
1	goose poop isdues	12/29/2017 8:27 AM
2	change room for swimming	12/18/2017 2:58 PM

Q5 What improvements do you feel are needed at the Krakow Township Hall?

Answered: 3 Skipped: 4

#	RESPONSES	DATE
1	bike paths bike lanes	12/29/2017 8:27 AM
2	Access to the hall is on a old timber road, through a swamp, and you need to wash your vehicle after you travel on that part of the highway	12/24/2017 10:47 AM
3	tree planting	12/18/2017 2:58 PM

Q6 What improvements do you feel are needed at the Grand Lake DNR Boat Launch?

Answered: 1 Skipped: 6

#	RESPONSES	DATE
1	more parking	12/18/2017 2:58 PM

Q7 What improvements do you feel are needed at the Fletcher Gilcrest Park Boat Launch?

Answered: 1 Skipped: 6

#	RESPONSES	DATE
1	dredging of the launch	12/18/2017 2:58 PM

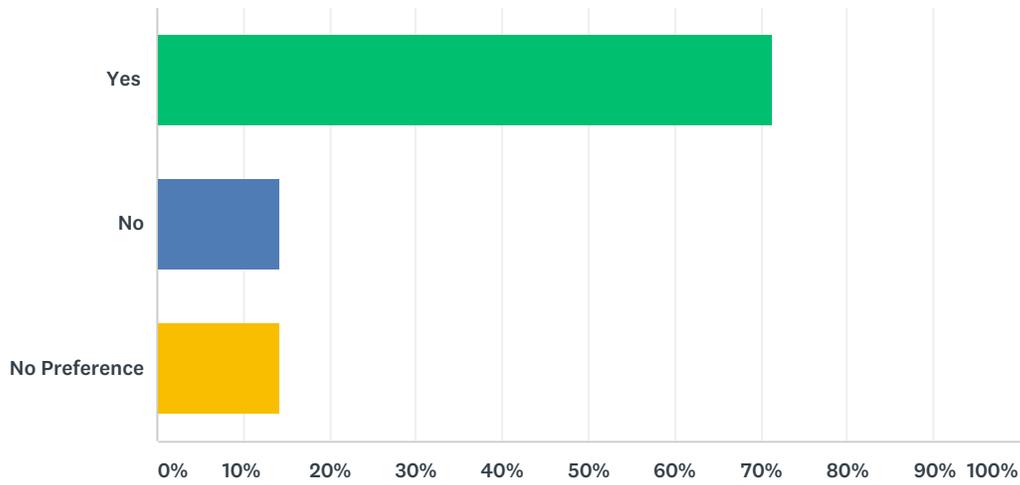
Q8 What recreational opportunities are missing in the Township?

Answered: 3 Skipped: 4

#	RESPONSES	DATE
1	more biking and hiking opportunitis	12/29/2017 8:27 AM
2	I would be nice if bike paths could connect to the DNR trails.	12/24/2017 10:47 AM
3	boat launch and parking area at long lake, off of long lake road	12/18/2017 2:58 PM

Q9 Do you think that a non-motorized trail network and trail amenities should be promoted more in Krakow Township?

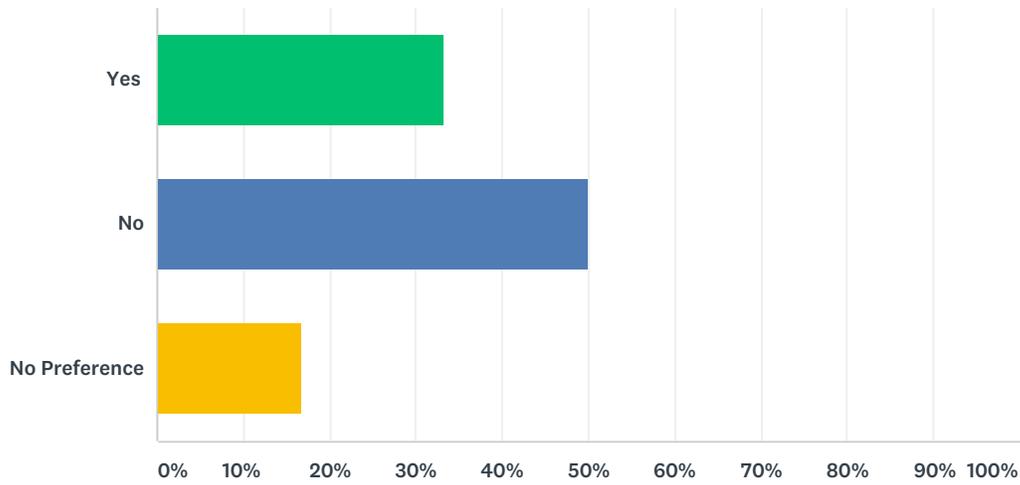
Answered: 7 Skipped: 0



ANSWER CHOICES	RESPONSES
Yes	71.43% 5
No	14.29% 1
No Preference	14.29% 1
TOTAL	7

Q10 Would you support the development of a new public park in Krakow Township, possibly at the Township Hall property?

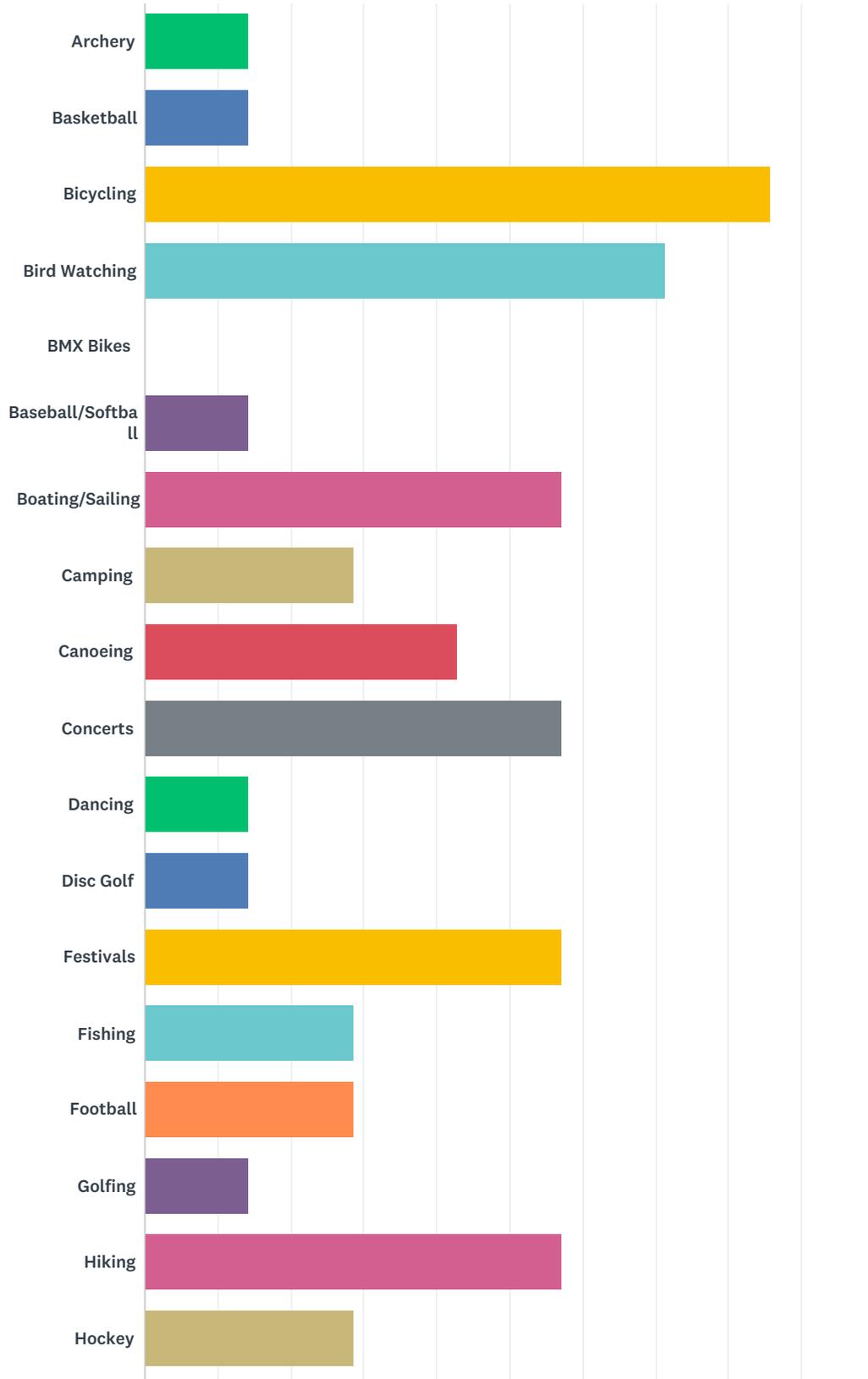
Answered: 6 Skipped: 1

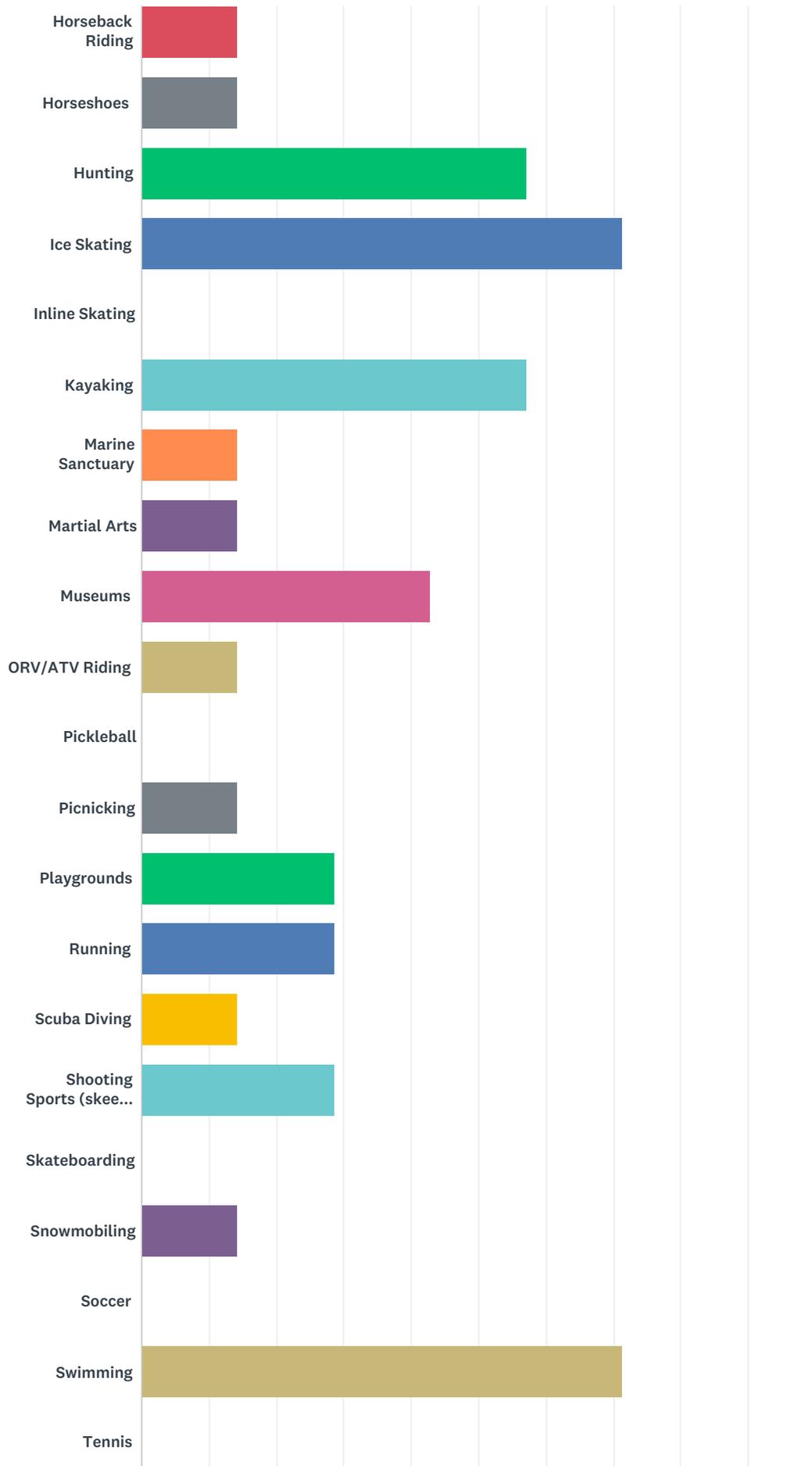


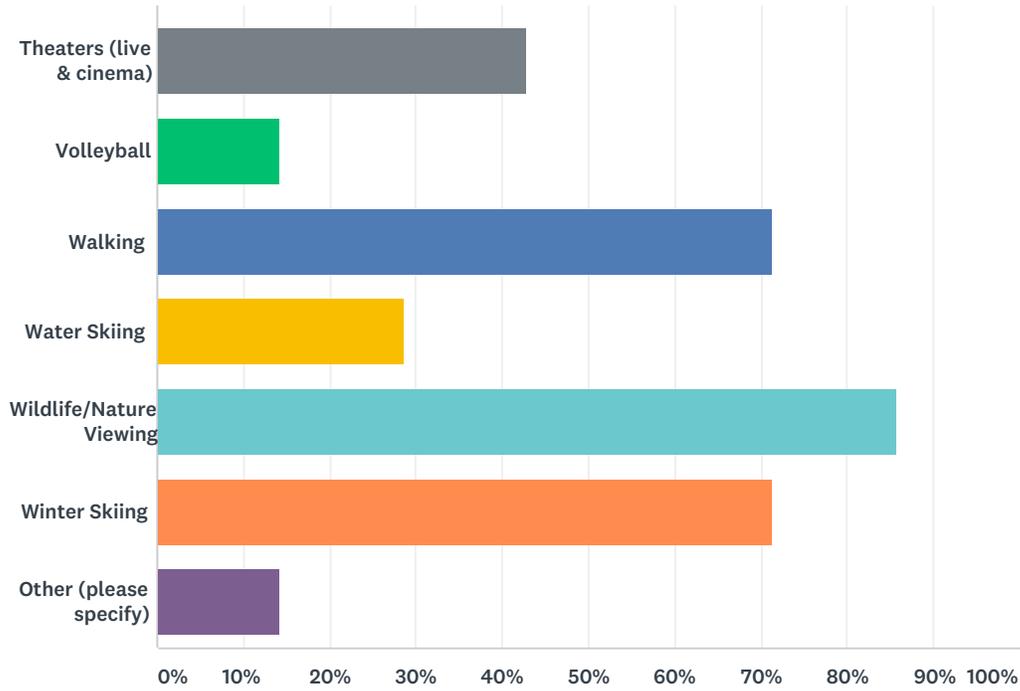
ANSWER CHOICES	RESPONSES
Yes	33.33% 2
No	50.00% 3
No Preference	16.67% 1
TOTAL	6

Q11 What recreational activities do you and/or your family enjoy? (Please check all that apply.)

Answered: 7 Skipped: 0







ANSWER CHOICES	RESPONSES	
Archery	14.29%	1
Basketball	14.29%	1
Bicycling	85.71%	6
Bird Watching	71.43%	5
BMX Bikes	0.00%	0
Baseball/Softball	14.29%	1
Boating/Sailing	57.14%	4
Camping	28.57%	2
Canoeing	42.86%	3
Concerts	57.14%	4
Dancing	14.29%	1
Disc Golf	14.29%	1
Festivals	57.14%	4
Fishing	28.57%	2
Football	28.57%	2
Golfing	14.29%	1
Hiking	57.14%	4
Hockey	28.57%	2
Horseback Riding	14.29%	1
Horseshoes	14.29%	1

Hunting	57.14%	4
Ice Skating	71.43%	5
Inline Skating	0.00%	0
Kayaking	57.14%	4
Marine Sanctuary	14.29%	1
Martial Arts	14.29%	1
Museums	42.86%	3
ORV/ATV Riding	14.29%	1
Pickleball	0.00%	0
Picnicking	14.29%	1
Playgrounds	28.57%	2
Running	28.57%	2
Scuba Diving	14.29%	1
Shooting Sports (skeet, targets)	28.57%	2
Skateboarding	0.00%	0
Snowmobiling	14.29%	1
Soccer	0.00%	0
Swimming	71.43%	5
Tennis	0.00%	0
Theaters (live & cinema)	42.86%	3
Volleyball	14.29%	1
Walking	71.43%	5
Water Skiing	28.57%	2
Wildlife/Nature Viewing	85.71%	6
Winter Skiing	71.43%	5
Other (please specify)	14.29%	1
Total Respondents: 7		

#	OTHER (PLEASE SPECIFY)	DATE
1	winter tubing. build a tubing hill. people will come!	12/29/2017 8:29 AM

Q12 What other recreational activities do you or your family participate in within Krakow Township?

Answered: 1 Skipped: 6

#	RESPONSES	DATE
1	We live on the lake. Everything that goes with that.	12/24/2017 10:50 AM

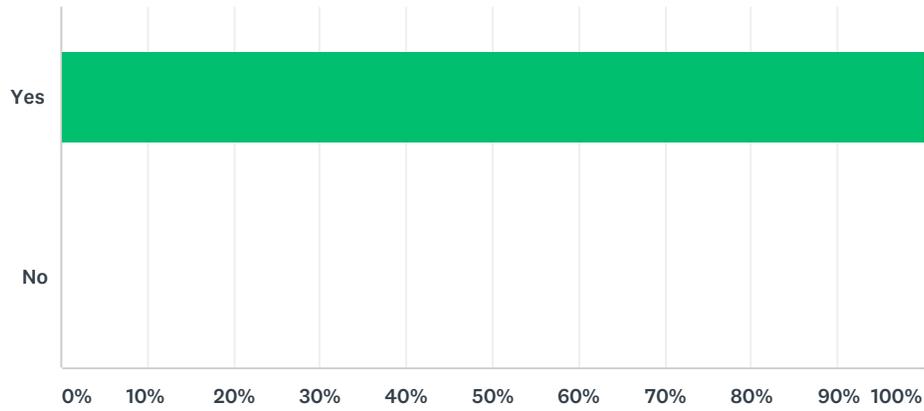
Q13 What recreational activities do you leave Krakow Township to participate in?

Answered: 2 Skipped: 5

#	RESPONSES	DATE
1	tubing in the winter. skiing in the winter	12/29/2017 8:29 AM
2	Gold, shopping, hunting	12/24/2017 10:50 AM

Q14 Are you a year-round resident of Krakow Township?

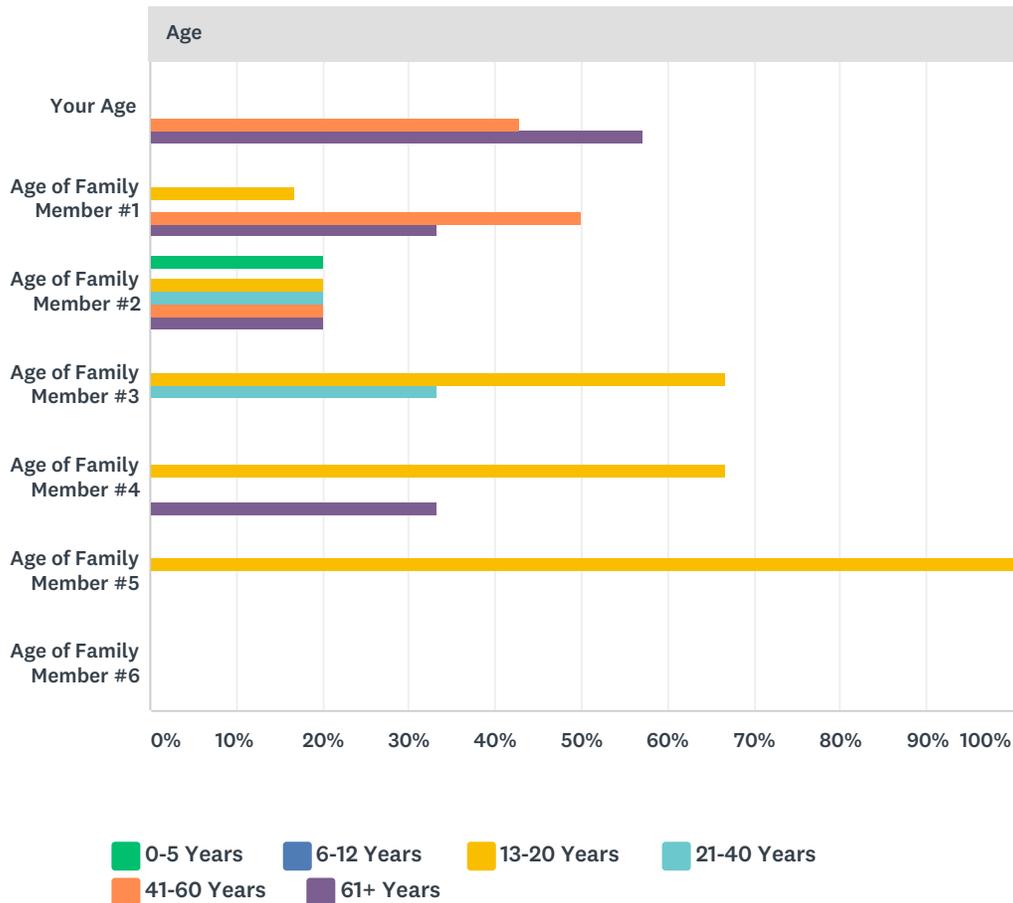
Answered: 7 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	7
No	0.00%	0
TOTAL		7

Q15 What are the ages of you and your household family members?

Answered: 7 Skipped: 0



Age	0-5 YEARS	6-12 YEARS	13-20 YEARS	21-40 YEARS	41-60 YEARS	61+ YEARS	TOTAL
Your Age	0.00% 0	0.00% 0	0.00% 0	0.00% 0	42.86% 3	57.14% 4	7
Age of Family Member #1	0.00% 0	0.00% 0	16.67% 1	0.00% 0	50.00% 3	33.33% 2	6
Age of Family Member #2	20.00% 1	0.00% 0	20.00% 1	20.00% 1	20.00% 1	20.00% 1	5
Age of Family Member #3	0.00% 0	0.00% 0	66.67% 2	33.33% 1	0.00% 0	0.00% 0	3
Age of Family Member #4	0.00% 0	0.00% 0	66.67% 2	0.00% 0	0.00% 0	33.33% 1	3
Age of Family Member #5	0.00% 0	0.00% 0	100.00% 1	0.00% 0	0.00% 0	0.00% 0	1
Age of Family Member #6	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0

Q16 Other Comments?

Answered: 2 Skipped: 5

#	RESPONSES	DATE
1	We cant compete with Harbor Springs for skiing but we have hills large enough for ski tubing. It is a great family activity for all ages. you should look into it. have food and drink available. people will come.	12/29/2017 8:32 AM
2	Development of fishing platform at the grand lake dam, kayak and canoe launch.	12/18/2017 3:03 PM