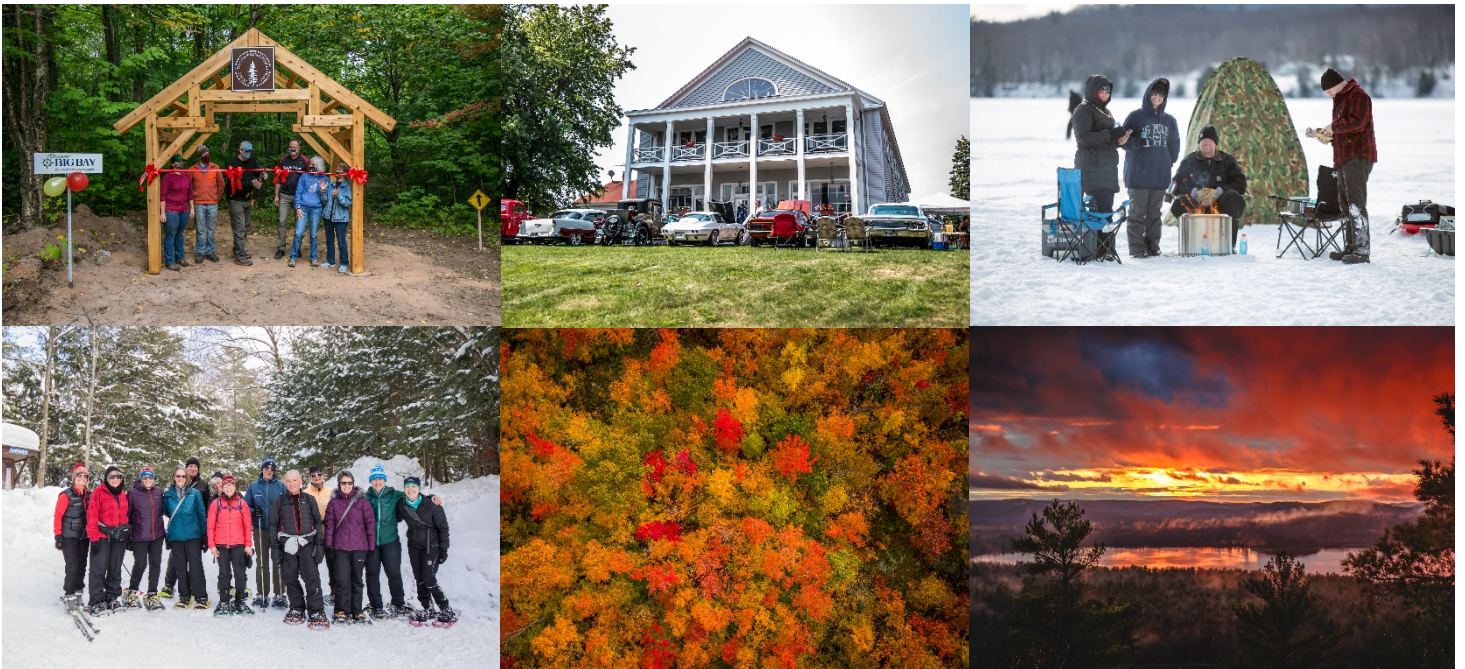


Powell

T O W N S H I P

MASTER PLAN | 2021



“Where the Road Ends & Your Adventure Begins,” has become the slogan that speaks to the beautiful, rugged, hard-working, community-orientated, four-season, recreation destination that is Powell Township.

ADOPTED ON: _____

This Master Plan was prepared by the Powell Township Planning Commission with assistance from, *Northwoods Planning & Zoning Services, LLC*

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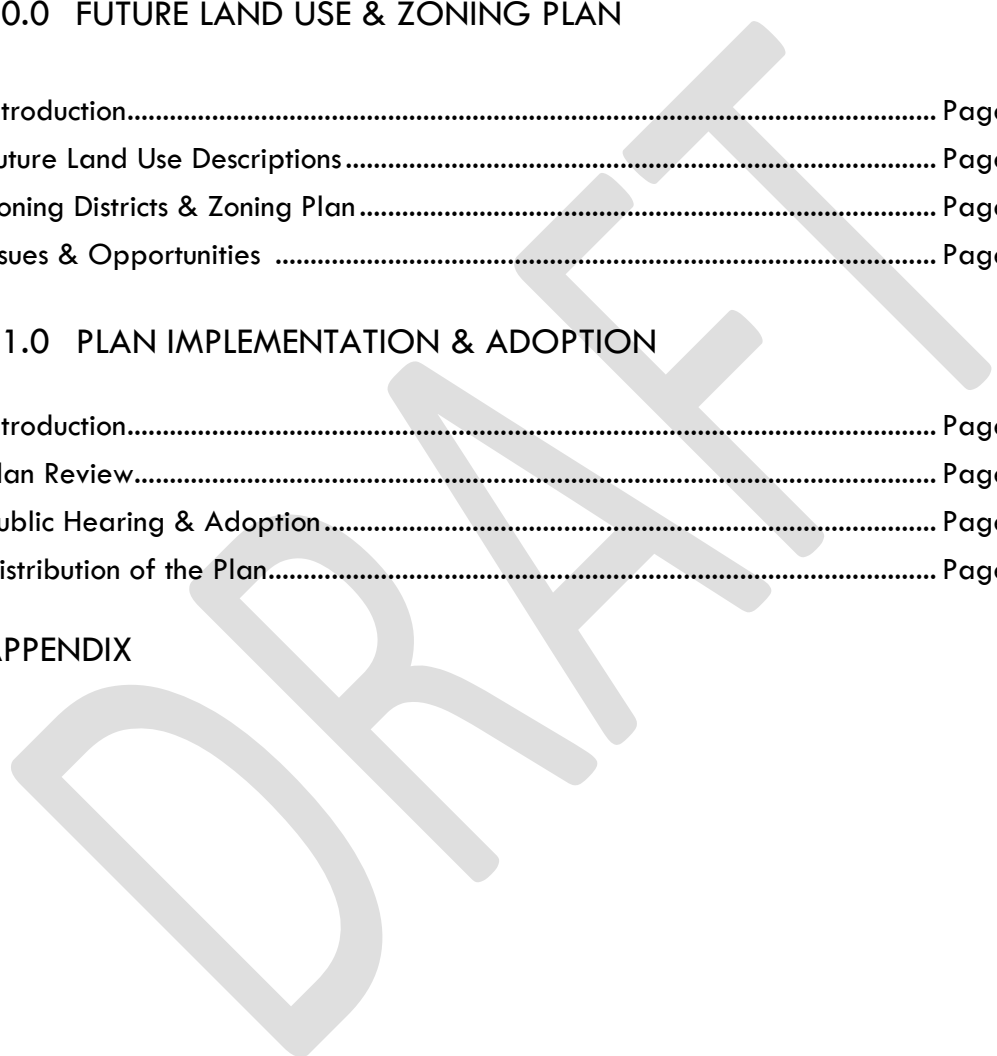
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ACKNOWLEDGMENTS

TOWNSHIP BOARD

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Technical assistance for the Master Plan update was provided by Northwoods Planning & Zoning Services, LLC.



1.0 INTRODUCTION

1.1 The Master Plan Document

The Powell Township Master Plan details a vision for the community’s future and provides guidance in the areas of future land use, economic opportunity, environmental resilience, community services, as well as recreation and transportation planning. This vision has been reached by seeking input from residents, staff, and public officials. It utilizes the most relevant demographic information and economic development trends, in order to provide local officials with the best information to make educated future land use decisions.



The [Michigan Planning Enabling Act, P.A. 33 of 2008](#) (as amended), provides all local governments (township, village, city & county) with the ability to conduct land use planning in the state. The Powell Township Master Plan does not amend the zoning of properties and it does not have the force of law. It is merely a set of policies, strategies and recommendations to enhance and improve the community over a projected period of time. The Master Plan update process also creates a framework for public participation and community involvement, which contributes to the continuation of the small-town, quality-of-life found in Powell Township. Where and when feasible, this plan can be used in conjunction with other, regional planning documents to create consistency in local land use planning endeavors.

Comparatively, the [Michigan Zoning Enabling Act 110 of 2006](#) (as amended), provides for all local government (township, village, city & county) zoning in the state. The act requires that the zoning ordinance be based on a Master Plan. Zoning aims to promote health, safety and general welfare, and it is the legal mechanism used to adjust the classification and regulation of land uses in Powell Township.

The Master Plan is the community’s vision, while the zoning ordinance guides a path to that vision. With a Master Plan in place, zoning decisions consistent with the plan and zoning ordinance are presumed to be valid in the court of law.

1.2 The Master Plan Update Process

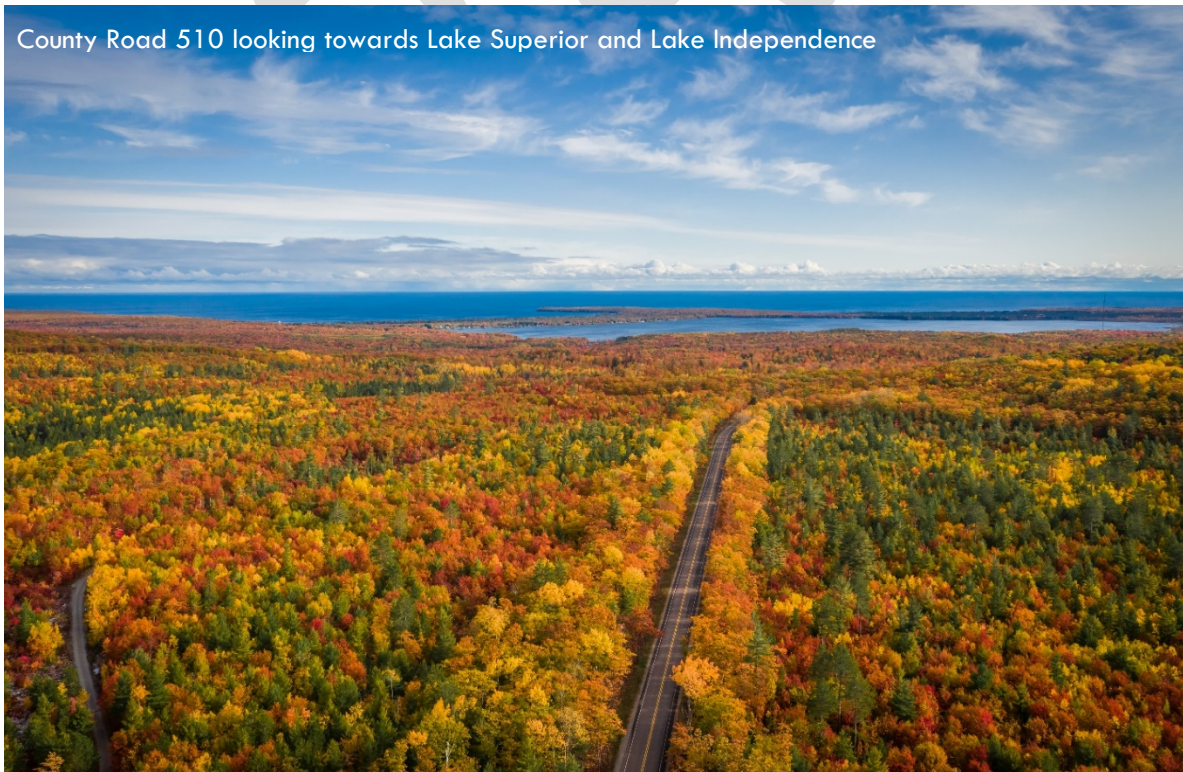
The sections presented in this document represent the conclusion of months of discussion and research by the Powell Township Planning Commission, with technical assistance provided by Marquette-based, Northwoods Planning & Zoning Services, LLC.

A community survey was made available online and in hard copy format in 2019. The results can be found in the Chapter 9 – Public Participation chapter of this plan. The 2019 Community Survey received informative responses to a number of planning and zoning related topics that the Planning Commission sought opinions on.

A Master Plan Open House was held on October 16, 2019, at the Township Hall for members of the community to offer input on the proposed draft plan, future land use map, and other relevant topics. A healthy discussion was held by approximately 30 local residents and business owners. The detailed content of the discussion can also be found in Chapter 9 – Public Participation.

The Master Plan update saw a pause due to the COVID-19 global pandemic in 2020. However, the final draft of the plan update was presented to the Planning Commission in May of 2021. The final draft plan was posted on the Powell Township website on _____, 2021 and made available at the Powell Township Hall. Residents also had the opportunity to provide additional comments at the Planning Commission's public hearing on _____, 2021. This Plan was adopted by the Powell Township Board on _____, 2021. A copy of the adopted resolution can be found later in the plan.

County Road 510 looking towards Lake Superior and Lake Independence



2.0 SOCIAL CHARACTERISTICS

2.1 Introduction

Social characteristics are essential components to consider when laying the groundwork of a master plan update. They provide the foundation upon which a major portion of a plan is based. While an evaluation of a community's current characteristics provide insight into immediate needs and deficiencies, population projections provide a basis for determining future land use requirements, public facility needs, and essential service provision.

This section of the plan examines several factors which are central to understanding a community's overall population, economic, and housing characteristics. These items include population density, age distribution, ethnic composition, household size, as well as income, employment, and other housing trends.

2.2 Population Trends & Projections

The population of Powell Township has, and still does, center on the economics of its abundant natural resources. Population projections are useful for the Planning Commission and Township Board for projecting future residential demands for public services, recreational needs and other capital improvements. These projections also rely heavily on the future economic trends of the township and the region as a whole.

The majority of Powell Township's population is concentrated in the eastern portion of the Township along CR 550, within the community of Big Bay, and along or near water features. The majority of the western portion of the Township is made up of undeveloped forest land with seasonal residences intermingled within.

Historically, the population of Powell Township from 1950 to 2010 increased by 30% percent, to the current level of approximately 820 persons. The township experienced considerable growth in population during the 1970s, with an increase of approximately 300 people. This substantial increase was likely the result of an influx of families moving from the Marquette, Negaunee, and Ishpeming areas to the Township to reside. Most of the working members from these families commuted to urban areas to work. From 1980 to 1990 the population declined slightly before posting a gain of 64 persons for the 2000 census. Between 2000 and 2010 the Township grew by about 90 people.

The largest population decline in this period occurred between 1950 and 1960. In June of 1949, the Ford Motor Company lumber mill in Big Bay, which employed about 110 workers, ceased operations. As a result, most of the mill workers and their families moved elsewhere to work and live.

The 30-year population forecast for Marquette County reveals a downward population trend, with an overall 5.96 percent decrease from 1990 to 2020. Marquette and Menominee counties were the only counties in the central U.P. that projected a decline between 2010 and 2020.

However, Marquette County's population actually realized an increase in population between 2000 and 2010, and it appears that the trend continued into the foreseeable future.

In addition to the recent changes in the year-round population, Powell Township continues to undergo seasonal fluctuations in population due to the high number of seasonal residences in the Township and the Huron Mountain Club. Vacation rentals are also a new issue and opportunity for local officials to consider. Vacation rentals and their potential impact are discussed in more detail later in the plan.

2.3 Population Density

With an approximate population of 820 persons and a land area of 154 square miles, Powell Township's population density was about five (5) persons per square mile. The densities for the Marquette County and the state are 37 and 174 persons per square mile, respectively.

2.4 Age Distribution

Information on age distribution within a population can assist a community in matching public services to community characteristics and in determining special needs of certain age groups. Analysis of age distribution may also be used by policy makers to identify current gaps in services and to project future service needs. For instance, the younger age group has an important impact from an educational standpoint.

In Powell Township, the number of school age children has decreased over the past two decades. Pre-school (under 5 years) has also decreased. Additionally, Powell Township's population is aging, as with most communities in the Upper Peninsula. In 1980 only 11% percent of the population was of retirement age. By 2010, over 22 percent of the population was 65 and older. As indicative of the aging population of the Township, more than 65 percent of the Township's population is over the age of 45. The Township's older age structure is most likely the result of increased lifespan and in migration of people aged 40 and older.



On the whole, the aging population of the Township is following state and national trends, which result from a combination of factors. The primary causes of this aging are increased life expectancies, combined with the fact the largest segment of the population, the so-called "baby

boomers," are aging. A trend toward smaller families, with many people choosing to delay childbearing or not to have children, also contributes toward this trend.

2.5 Ethnic Composition

Another important social characteristic of a community is its ethnic make-up. Understanding the ethnic fabric of a community helps to identify the diverse needs of its population. The Upper Peninsula as a whole has remained predominately white compared to the rest of the state. Powell Township reflects this trend. However, the proximity of Northern Michigan University and a regional hospital attracts students and employees from all over world. This has increased ethnic diversity in the greater-Marquette area in more recent years.

In 2010, whites made up more than 95 percent of Powell Township's population. The Township saw a slight increase in diversity compared to 2000. The next largest group was American Indian/Alaska Native with 21 persons, an increase of seven people since 2000. Eight individuals identified as Asian, compared to one in 2000. Additionally, one person identified as Black or African American and three people identified as Hispanic or Latino, compared to zero for each of these groups in 2000.

2.6 Household

The average household size in Powell Township decreased from 2.57 persons per household in 1990 to 1.93 in 2010. Marquette County and the CUPPAD region experienced similar decreases. Since the 1970's, the nationwide trend has been a decline in household size. There are many reasons for this trend including increasing divorce rates families have fewer children, elderly living alone, among others.

Household relationships reflect changing social values, economic conditions, and demographic changes, such as increased lifespan and the increasing mobility of our society. The Census defines a household as all persons who occupy a housing unit, i.e., a single family, one person living alone, two or more families living together, or any group or related or unrelated persons sharing living quarters. A family, on the other hand, consists of a householder and one or more persons living in the same household who are related by birth, marriage, or adoption. A non-family household can be one person living alone, or any combination of people not related by blood, marriage or adoption.

Of the 423 households in Powell Township, nearly half are married-couple families, 36% percent are single person households, and only 4% percent are single parent households. Of the approximate 27,500 households in Marquette County, the percentages hold true, with nearly 50% percent being married-couple households, 30.4 percent are single person households and a slightly higher 7.3 percent of are households documented as single parent. Powell Township has a lower average household size compared to Marquette County as a whole.

2.7 Issues & Opportunities

- Increases in population each decade, if continued, may require additional investment in community facilities and infrastructure improvements. However, the additional tax base from an increase in population could mitigate this cost.
- The proportion of individuals in the preschool and school age groups continues to shrink which contributes declining school enrollment. Declining school enrollment could require consolidation of services to save money.
- Many residents in the working age population have been forced to move to areas with more employment opportunities. Additionally, as the "baby boomers" begin to reach retirement age, a smaller proportion of the population is participating in the workforce. With a diminishing workforce, there are fewer people contributing to pension funds and additional programs that support retirees. As the number of working persons decreases in comparison to retirees, there is distress over the future of programs such as Social Security.
- With many major employers within Marquette County requiring degrees beyond high school, the Township should encourage the local population to further their education. In addition, a well-educated work force is essential for attracting potential employers to the area.
- The increase in nonfamily households between 2000 and 2010 may indicate a small change in the type of housing and other services demanded within the Township. Most significant is the increase in the number of persons living alone.
- The Township's population density is one of the lowest of the townships within Marquette County. The majority of the Township's population is located near along CR 550, within the community of Big Bay, and along or near water features. It is likely that the greatest growth in population within the Township in coming years will occur along and near water features, due to the desirability of living in such a location.

3.0 ECONOMIC CHARACTERISTICS

3.1 Introduction

Numerous factors contribute to the economic development of a community, many of which extend far beyond the community's boundaries. Therefore, this section will not only include information that is specific to Powell Township, but it will also include data for the county, region, and state.

3.2 Historical Economic Factors

Like much of the Upper Peninsula of Michigan, Powell Township's economic history is closely related to its natural resources. Logging and wood product industries have been mainstays of the local economy throughout the Township's history. The first products shipped from Big Bay, an unincorporated community located within Powell Township, were white pine logs sent to Quebec. A variety of lumber mills followed as the area was settled in the mid-1870s.

The Lake Independence Lumber Company, a subsidiary of the Brunswick Balke Collander Company, manufactured bowling pins until the 1920s, when it was bought out by the Kerry and Hanson Flooring Company. In the 1930s, the Ford Motor Company bought the mill and the many of the surrounding properties in Big Bay. The mill produced parts for wooden auto bodies until 1949. This mill site, under its various ownerships, was the mainstay of employment in Big Bay for many years.

Birch, was a station on a spur of the old Big Bay Branch of the Lake Superior & Ishpeming Railroad between Marquette and Big Bay. A post office opened in 1905 and closed in 1920. It was settled around the Northern Lumber Company mill and store. Other communities sprang up and just as quickly disappeared as the timber was cut or companies went out of business.

Logging remains a mainstay in the Township's economy, although most of the timber now cut in the Township is hauled to mills elsewhere for processing. The Township has vast areas of land in Commercial Forest Reserve (CFR). Much of this CFR land contains timber used for pulp by paper manufacturers such as the Mead Corporation.

Natural resources will always be pivotal to the local economy, both as a source of raw material, and as a part of the environment that draws year-round tourists and residents to the area for the abundance of recreational opportunities and rural lifestyle that is found in Powell Township.



The Huron Mountain Club, the Township's largest employer and largest single landowner (nearly 26,000 acres), has been in existence for over a century in various forms. This private club provides employment for local residents, and is also the largest taxpayer in the Township. Other

lodging and dining establishments, primarily in the Big Bay area, provide services to the general public.

Granot Loma, originally built as the summer residence of the Louis Kaufman family in the 1920s, is in private ownership and is closed to the public. However, the lodge would be suitable for operation as a bed and breakfast or inn offering meals and lodging to the public, and the

Granot Loma, Powell Township



Owner has discussed such plans. If this were to occur, the facility could be an additional tourism attraction in the area.

Recently the introduction of a rocket launch site concept for Granot Loma has been presented by Marquette County officials. As this development continues to be discussed, it is imperative that local leaders gain as much information as possible prior to making any decisions on the proposed land use.

County-wide, the economy has diversified beyond its original natural resource base. The service and retail trade sectors have become the largest employment sectors in the County, while manufacturing has diminished in relative importance. Within the County, there is a regional health care facility, a state university, and many government offices.

3.3 Income Levels

As of 2017, Powell Township had one of the higher median household and median family incomes in Marquette County with \$50,000 and \$102,693, respectively. These figures are shown in more detail in the table below.

Subject Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates	Powell township, Marquette County, Michigan					
	Households		Families		Married-couple families	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total	220	+/-67	109	+/-47	84	+/-43
Less than \$10,000	13.6%	+/-9.8	0.0%	+/-18.5	0.0%	+/-23.2
\$10,000 to \$14,999	11.8%	+/-10.3	2.8%	+/-4.5	0.0%	+/-23.2
\$15,000 to \$24,999	1.8%	+/-3.1	0.0%	+/-18.5	0.0%	+/-23.2
\$25,000 to \$34,999	17.3%	+/-13.0	8.3%	+/-12.6	10.7%	+/-16.1
\$35,000 to \$49,999	5.5%	+/-6.2	0.0%	+/-18.5	0.0%	+/-23.2
\$50,000 to \$74,999	15.0%	+/-10.3	18.3%	+/-18.9	23.8%	+/-23.3
\$75,000 to \$99,999	10.0%	+/-9.5	20.2%	+/-18.2	22.6%	+/-22.1
\$100,000 to \$149,999	12.3%	+/-10.1	24.8%	+/-18.5	23.8%	+/-21.3
\$150,000 to \$199,999	8.2%	+/-8.8	16.5%	+/-17.2	7.1%	+/-9.7
\$200,000 or more	4.5%	+/-6.6	9.2%	+/-12.6	11.9%	+/-16.3
Median income (dollars)	50,000	+/-28,791	102,639	+/-30,780	95,833	+/-22,345
Mean income (dollars)	66,326	+/-19,190	110,482	+/-23,163	N	N
PERCENT ALLOCATED						
Household income in the past 12 months	49.5%	(X)	(X)	(X)	(X)	(X)
Family income in the past 12 months	(X)	(X)	56.0%	(X)	(X)	(X)



Construction of the Ford Plant in Big Bay, MI

DRAFT

3.4 Employment

Table 3.1 shows principal employers in Marquette County and their respective number of employees. The largest employer in the County is U.P. Health System with over 2,600 employees. Followed by Cliffs Michigan Mining Company (1,800 employees) and Northern Michigan University (950 employees).

The City of Marquette is the site of most of the major employers within Marquette County, except the Tilden Mine and Empire Mine near Ishpeming and Eagle Mine, which operates just outside Powell Township, in Michigamme Township.

Over the past century, the economy of the central Upper Peninsula has been dominated by mining, especially iron ore mining. The iron ore industry has been sensitive over the century to cycles of boom and bust. Much of the cycle has been related to the same cycles as the national economy. The iron mining industry reacted to the demand for high grade ore by developing pelletizing plants to turn low grade ore into high grade pellets.

Most mining had previously been conducted on the surface in open pit mines. However, Lundin Mining is currently operating an underground copper and nickel mine. Lundin previously anticipated closing the mine in 2023, but has since been exploring additional mining possibilities in the region which has extended that timeframe. On the flip side, Cliffs Resources has closed the Empire Mine. Cliffs has previously indicated that they have plans to keep Tilden open until at least 2024.

Table 3.1 Principal Employers	
Marquette County Principal Employers	
EMPLOYER	# OF EMPLOYEES
U.P. HEALTH SYSTEM	2619
CLIFFS NATURAL RESOURCES	1800
PENINSULA MEDICAL CENTER	638
WESTWOOD MALL ASSOCIATION	500
WAL-MART	380
BELL HOSPITAL	370
AMERICAN EAGLE REGIONAL AIRCRAFT MAINTENANCE FACILITY	253
PIONEER SURGICAL	207
OJIBWA CASINO	160
PATHWAYS	158
NORLITE NURSING CENTER	155
WE ENERGIES	153
PCBM MANAGEMENT - COUNTRY VILLAGE	150
POTLATCH CORP.	135
MEIJER	300
PUBLIC EMPLOYERS	
NORTHERN MICHIGAN UNIVERSITY	950
MICHIGAN DEPARTMENT OF CORRECTIONS	425
MARQUETTE AREA PUBLIC SCHOOLS	374
COUNTY OF MARQUETTE	300
ALGER-MARQUETTE COMMUNITY ACTION BOARD	182
NEGAUNEE PUBLIC SCHOOLS	180
CITY OF MARQUETTE	175
GWINN AREA COMMUNITY SCHOOLS	170
N.I.C.E. COMMUNITY SCHOOLS	154
ISHPEMING PUBLIC SCHOOLS	96

3.5 Housing

A range of housing options is a primary need of any community. Meeting the housing needs of residents in different stages of life and circumstances can help to revitalize rural communities and retain residents. One way to do this is by supporting mixed-use neighborhoods which combine residential and neighborhood commercial uses in an effort to promote walkability and a sense of community. This allows greater independence for those who either do not have the opportunity, or prefer not to depend on the automobile for primary transportation.

The number of housing units in the Township has increased in the past 10 years. According to the 2010 United States Census, there were 423 housing units in the Township. The *American Fact Finder Survey* estimated a total of 830 households as of 2017.

Subject	Powell township, Marquette County, Michigan			
	Estimate	Margin of Error	Percent	Percent Margin of Error
HOUSING OCCUPANCY				
Total housing units	830	+/-108	830	(X)
Occupied housing units	220	+/-67	26.5%	+/-7.5
Vacant housing units	610	+/-105	73.5%	+/-7.5
Homeowner vacancy rate	0.0	+/-10.8	(X)	(X)
Rental vacancy rate	39.5	+/-34.0	(X)	(X)

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

3.6 Issues & Opportunities

Since the Covid-19 pandemic, housing has certainly become a seller’s market. Many properties that had been for sale for an extended time, have now been purchased and are being used as both primary and secondary properties centered around the outdoors. This bodes well for Powell Township, moving forward. The Planning Commission and local residents recognize their opportunity to attract new visitors and residents to the community. By capitalizing on the rural character and recreational opportunities being developed in the area, additional residential and business opportunities will continue to increase.

As stated earlier in this chapter, the proposed rocket launch site at Granot Loma presents a complex list of issues and opportunities for Powell Township. As this development continues to be discussed, it is imperative that local leaders gain as much information as possible prior to making any decisions on the proposed land use.

4.0 HOUSING

4.1 Introduction

Housing is one of the key factors to consider when planning for Powell Township's future. The location and type of housing available establishes where public infrastructure must be provided. The placement of a community's housing also determines the costs associated with public services. Housing characteristics also reveal information about a community's history, its economic and social situation, and what needs may lie ahead. Zoning, additional land use controls, efforts to attract new residents to a community, and provide local governments with powerful tools to impact housing in a community.

In addition to migration (in or out), commuter trends, the cost of land and construction, and other housing related elements, there are several key non-housing factors that can influence the community's housing market. The availability of quality educational opportunities for all stages of life, access to employment, shopping, public safety and other entertainment needs factor into where someone or a family chooses to live.

Information presented in this chapter will provide elected and appointed officials with the most recent housing data available, including structure and occupancy characteristics. This information will help assess housing needs and determine the appropriate course of action to address housing needs in Powell Township.

4.2 Housing Characteristics

A couple of important definitions to consider when discussing housing characteristics are *household* and *family*.

A *household* is defined as all persons who occupy a housing unit. This can include one person living alone, a single family, two or more families living together, or any groups of related or unrelated persons sharing living quarters.

A *family* consists of a householder and one or more persons living in the same household who is related by birth, marriage, or adoption. A non-family household can be one person living alone, or any combination of people not related by blood, marriage, or adoption.

Subject	Powell township, Marquette County, Michigan	
	Number	Percent
RELATIONSHIP		
Total population	724	100.0
In households	724	100.0
Householder	333	46.0
Spouse	195	26.9
Child	156	21.5
Own child under 18 years	115	15.9
Other relatives	15	2.1
Under 18 years	7	1.0
Nonrelatives	25	3.5
Unmarried partner	15	2.1
In group quarters	0	0.0
Institutionalized population	0	0.0
Noninstitutionalized population	0	0.0

Subject	Number	Percent
HOUSEHOLDS BY TYPE		
Total households	333	100.0
Family households (families)	228	68.5
With own children under 18 years	70	21.0
Married-couple family	195	58.6
With own children under 18 years	51	15.3
Female householder, no husband present	15	4.5
With own children under 18 years	8	2.4
Nonfamily households	105	31.5
Householder living alone	93	27.9
Householder 65 years and over	38	11.4
Households with individuals under 18 years	77	23.1
Households with individuals 65 years and over	92	27.6
Average household size	2.17	(X)
Average family size	2.61	(X)
HOUSING OCCUPANCY		
Total housing units	818	100.0
Occupied housing units	333	40.7
Vacant housing units	485	59.3
For seasonal, recreational, or occasional use	435	53.2
Homeowner vacancy rate (percent)	3.0	(X)
Rental vacancy rate (percent)	33.3	(X)
HOUSING TENURE		
Occupied housing units	333	100.0
Owner-occupied housing units	295	88.6
Renter-occupied housing units	38	11.4
Average household size of owner-occupied unit	2.22	(X)
Average household size of renter-occupied unit	1.79	(X)

Source: U.S. Census Bureau, 2010 Census.

The number of persons in a household has been decreasing in the United States over the past several decades, and Powell Township is no exception. The smaller household sizes within these areas followed a national trend. This phenomenon is the result of smaller family sizes, an increase in single parent families and an increase in the number of elderly residents staying in their own homes rather than living with relatives or in group quarters.

The Township had a higher share of nonfamily households, householders living alone, and households with individuals 65 years or older in 2010 compared to 2000. Changes in the size and makeup of households may affect housing demand in terms of the type of housing needed. Smaller families, families without children, and more elderly residents living alone are all examples of recent trends in household size and composition, both locally and regionally. Families with few or no children may be less interested in houses with many bedrooms, but may be interested in larger rooms, amenities such as fireplaces, family rooms, etc. Elderly householders typically seek housing which requires little maintenance, and with improved accessibility for those with decreasing mobility.

4.3 Financial Factors

A common measure of the affordability of a community's housing stock is the percentage of income spent on housing related costs. Generally, no more than 25 percent to 30 percent of the household income should be used for these costs.

The vast majority of the housing units in the Township rely on private wells as a source of water for household use. The only public source in Powell Township is the Big Bay water system which serves 137 housing units. In Marquette County and throughout the central U.P., a much higher proportion of housing units are served by public systems; this reflects the concentrations of population in urban areas where extensive municipal systems are present. Because the Township's population distribution will probably remain much the same throughout the foreseeable future, the Big Bay area will probably remain the only area served by municipal water in the future. The areas along Squaw Beach, the Lake Independence shoreline, and Saux Head Lake may have high enough population densities to support municipal services at some point in time, but this would probably not even be considered unless problems with water quality arise in these areas. The cost of extending service into new areas is very high, and residents are sometimes resistant to the monthly costs associated with such services.

A similar situation exists with regard to the reliance on on-site sewage disposal in Powell Township. Fifty-five homes are served by the community septic system in Big Bay. The system was built in 1940 and received upgrades in 2009 when meters were introduced. However, most use septic tanks or other means. It is likely that those units using other means include many seasonal dwellings with privies.

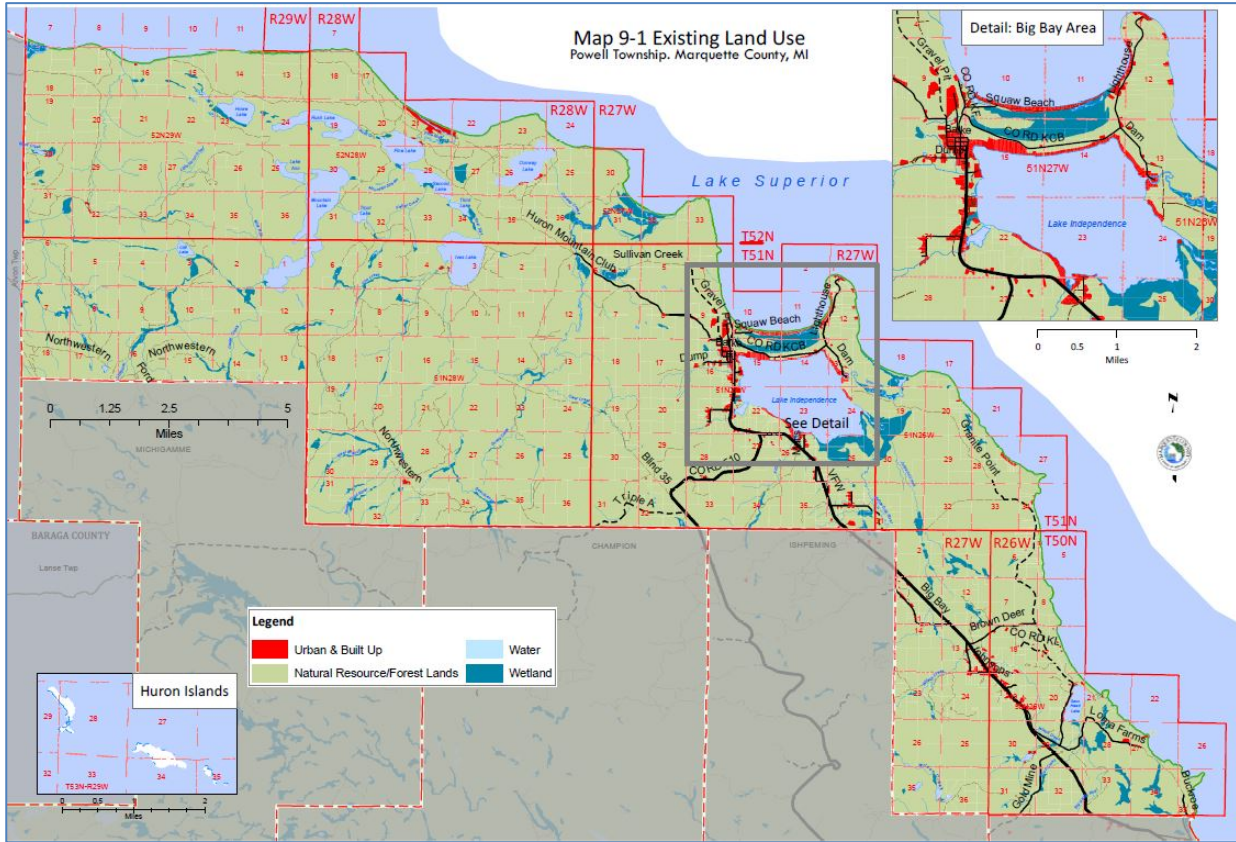
As with municipal water service, the only areas in the Township with sufficient population density to support a municipal system are Big Bay and some waterfront areas. The current community septic system in Big Bay lacks the capacity to serve large numbers of additional households, so any expansion of service area would have to consider development of a new system. Such an expansion would be unlikely unless serious problems arise with existing on-site systems.

4.4 Issues & Opportunities

- Powell Township contains a high percentage of seasonal housing units.

- The vast majority of the occupied housing units are owner-occupied.
- Nearly all of the Township's housing units are single-family detached units, with few multi-family units. Year-round camping areas, multi-family housing units, and manufactured housing communities are needed to accommodate for the increase in population resulting from the mine development. Zoning may need to be changed to allow for such new development, and the Township Board needs to attract developers to meet this need.
- Powell Township has a higher percentage of mobile home housing units than Marquette County. Mobile homes offer an affordable housing alternative to many people. However, mobile homes (especially single-wide units) tend not to appreciate in value over the long run, are prone to deterioration, and may not be compatible in appearance and construction with other types of housing.
- Housing can be prone to deterioration if not adequately maintained, and may not meet the accessibility needs of an aging population.
- Unlike the County and state, changes in household composition have been relatively minor in the Township. However, there has been an increase in the number of elderly householders living alone, and a slight decrease in the proportion of married-couple families.
- A significant proportion of homeowners and a smaller proportion of renters, pay more than 30 percent of their household income for housing costs.
- Housing units in the Township rely heavily on private wells and on-site septic systems or other methods of sewage disposal. Because of the highly dispersed nature of development in the Township outside the community of Big Bay, this is not likely to change significantly in the near future.

The below Map 9-1 shows the developed areas in Powell Township where residential and commercial land uses are located.



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5.0 NATURAL RESOURCES

5.1 Introduction

When preparing a Master Plan, it is important to examine the planning area's natural environment and resources in order to determine where development is best suited. The natural environment plays a major role in land development, as it can limit what can be constructed. For instance, a steep slope can prohibit the building of a home. Conversely, the natural environment can also be impacted by land development itself. An example would be the increased water runoff and erosion potential caused by the clearing of existing vegetation. In any environmentally sensitive area within a community, development should proceed with caution, or on some cases, be prevented completely. Environmentally sensitive areas are lands whose destruction or disturbance will affect the community by either:

- Creating hazards such as flooding or slope erosion.
- Destroying important public resources such as groundwater supplies and surface water bodies.
- Wasting productive lands and non-renewable resources.

Each of these effects is detrimental to the general welfare of a community, resulting in social and economic loss.

This chapter has two main goals. First, is to identify areas in the Township that are best suited for development. The focus is on areas that will minimize development costs and provide amenities without adversely impacting the existing natural systems. The second, to identify land that should be conserved in its natural state and is most suitable for conservation, open space or recreation purposes.

In summary, climate, geology, topography, woodlands, wetlands, soil conditions, water resources, and fish and wildlife resources are among the most important natural features impacting land use in Powell Township.

5.2 Climate

The climate of Marquette County is seasonal, as the region experiences considerable changes in temperatures and precipitation throughout the year. The region's climatic conditions are best described as long cold winters and moderate warm summers. One of the major factors impacting the region's climate is Lake Superior. During the summer months, the cool waters and breezes coming from Lake Superior work to produce mild temperatures as compared to the hot temperatures experienced by other regions at approximately the same latitude as Marquette County. Conversely, during the winter months, Marquette County does not experience as many bitterly cold days due to the moderating effects of the warmer Lake Superior waters. However, winds blowing across these relatively warm waters pick up moisture to produce cloudy weather periods throughout the winter, as well as frequent periods of "lake effect" snow. This seasonal

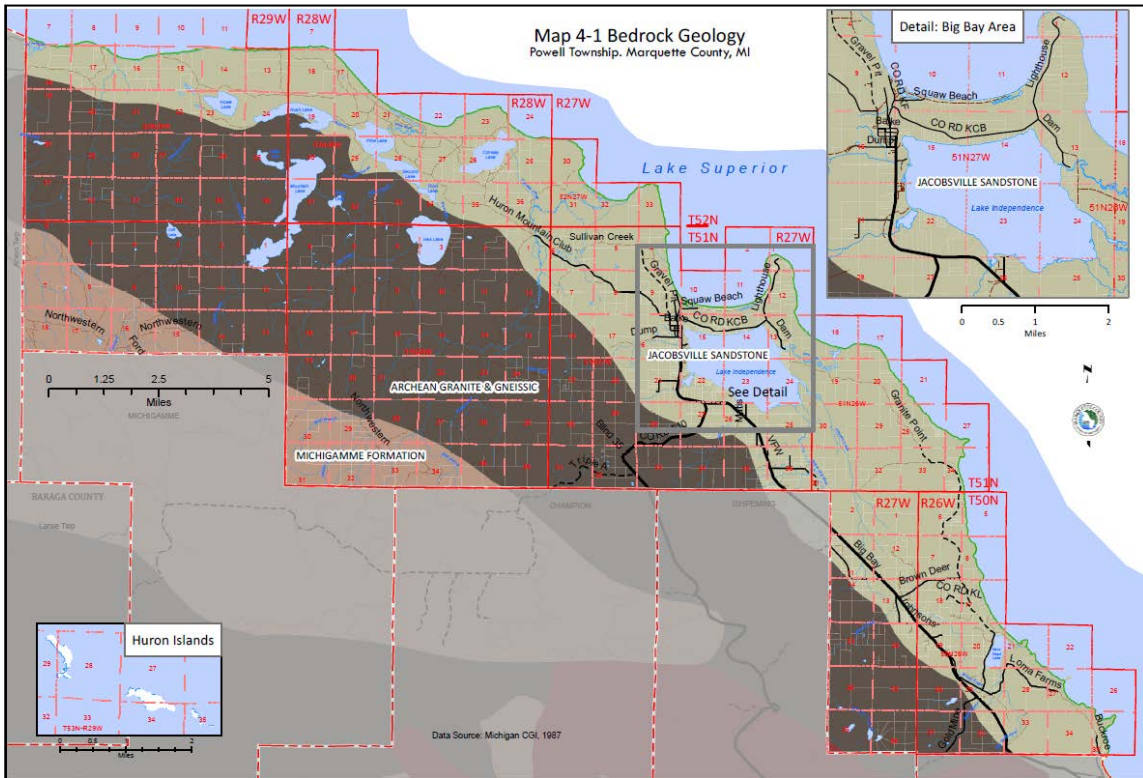
climate is one of the factors contributing to Powell Township's appeal as a place to live and recreate. The pleasantly cool summer temperatures are ideal for summer tourism while the tempered winter temperatures mixed with lake effect snowfall creates an ideal situation for winter sports enthusiasts.

5.3 Geology

Geology for Powell Township can be described in terms of Quaternary (Surface) Geology and Bedrock Geology. The Bedrock Geology of Powell Township is shown on the following page. Map 4-1 Bedrock is generally concealed by an unattached layer of loose fragmented rock. This loose material may have formed in place by decomposition of the underlying parent bedrock or it may be an accumulation of foreign rock fragments deposited by wind, water or ice (in the form of glaciers). Over most of the state, bedrock is buried beneath glacial deposits (drift). In a number of places, however, especially in the western Upper Peninsula and along the Great Lakes shores in the north, bedrock protrudes through the mantle of drift.

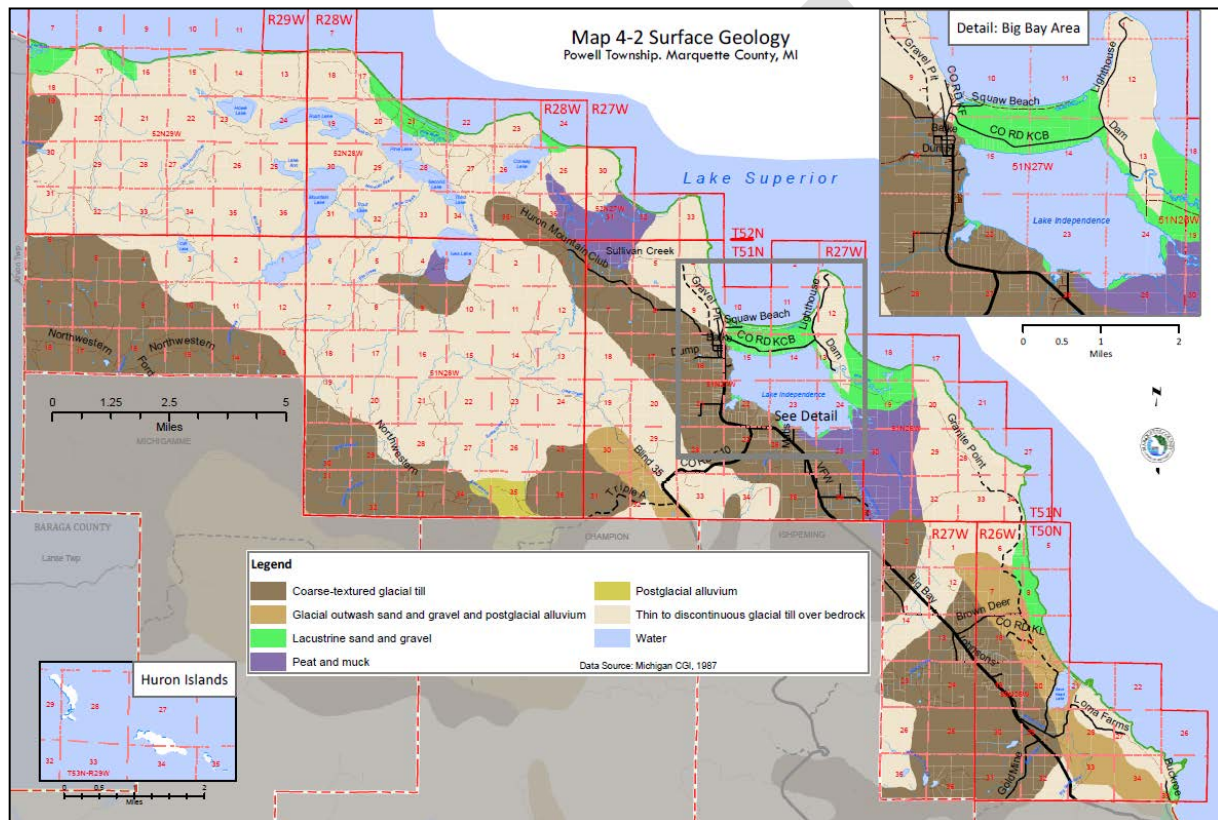
The western portion of the Upper Peninsula (including the Big Bay area) is underlain by rocks of Precambrian age. These Precambrian rocks are classified as Lower Proterozoic, Middle Proterozoic, and Archean. The Precambrian age involves 85 to 90 percent of all geologic time. The oldest date presently recorded for Precambrian rocks is circa 3900 million years, and it is estimated that the earth originated 4000 to 5000 million years ago. The Precambrian thus begins at some yet undetermined time between 4500 and 3800 million years ago and extends to 500 million years ago. Essentially all of Michigan's metallic mineral resources (iron, copper, copper sulfides, silver, etc.) occur in rocks of the Precambrian age.

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The Surface (Quaternary) Geology of Powell Township is represented on the previous page in Map 4-2. It shows the surface features and sediments created by glaciation during the last 15,000 years. Glaciers scoured out the Great Lakes, dumped piles of debris (moraines) along their leading edges and left flat plains of clay-rich soils (glacial till) where the glaciers melted in place. Their melt waters formed vast rivers that built wide, sandy plains of outwash. Many of our inland lakes were created when blocks of ice fell off of the glacier, became covered by debris and eventually left a depression (kettle) when the block melted. Ridges of sand and gravel called eskers show us places where rivers that started under the ice emerged from the front of the glacier. Drumlins are egg-shaped hills that were carved by the bottom of the glacier after it had



moved across older deposits.

Much of the Upper Peninsula is composed of thin drift to exposed bedrock or artificial fill. Other surface features in the Big Bay area include till, post-glacial alluvium or glacial outwash, and end moraines or ice contact outwash. Although not prominent in the Big Bay area, lacustrine deposits, peat, muck or sand dunes cover much of the eastern half and northwest portion of the Upper Peninsula.

The consequences of glaciation touch our everyday lives. Soil fertility, erosion, potential drainage, and suitability for agriculture and construction all depend upon the sediments that glaciers left behind. All of our ground water for drinking and irrigation either filters through, or is stored within, glacial sediments. Sand and gravel outwash and dunes are used for roadbeds, building and industry. Clay from lakebeds and till is used to seal landfills and to make pottery and tile.

5.4 Topography

Topography has very important planning implications. Land use and required maintenance depend to a large degree on slope, although today there are fewer restrictions on development in steep slope areas due to better construction and engineering techniques. Still, while steep slope can provide attractive views and recreational opportunities, building development can sometimes be adversely impacted.

Due to Powell Township's extreme variations in elevation, topography plays a major factor in existing and future land use and development. The terrain of Powell Township is rugged with significant elevation changes and steep slopes. Such a tremendous range in elevation is considered to be one of area's most aesthetic features. The Township's rugged terrain can be appealing for its scenic beauty and provide attractive views as well as provide an opportunity for outdoor recreational activities such as cross-country skiing, hiking and mountain biking. However, it also poses significant limitations to development.

Improper planning and land development can result in soil stability disturbances, altering of established drainage ways, elimination of natural wind screens, land slippage and rapid erosion which adds silt and sediment to downstream waterways. Consequently, development on hills should be conducted in a manner compatible with hillside ecology.



Topography map provided by: MyTopo.com

5.5 Forestlands

Powell Township contains and is surrounded by extensive forested areas that contribute to the recreation and economic opportunity and industry in the Township. Much of the land in the area is either State-owned forest or Commercial Forest Reserve land. Cover is mostly upland hardwoods, aspen, spruce, hemlocks, red pine, mixed lowland conifers, and lowland brush.

5.6 Wetlands

Wetlands are often referred to as marshes, swamps or bogs. The United States Army Corps of Engineers defines wetlands as, *"those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."* Residents of Michigan are becoming more aware of the value of wetlands. Beyond their aesthetic value, wetlands improve water quality of lakes, streams and ground-water by filtering polluting nutrients, organic chemicals and toxic heavy metals. Wetlands are closely related to high groundwater tables and serve to discharge or recharge aquifers. Additionally, wetlands support wildlife, and wetland vegetation protects shorelines from erosion.

5.7 Soils

Soil composition analysis is used in land use planning to predict soil behavior for selected land uses and to identify special practices needed to ensure compatibility of land use. Improvements may be needed to overcome soil limitations, depending on the planned use of the land. This information is useful to farmers, foresters, community officials, engineers, developers, and home buyers.

Adequate drainage (and the protection of it) is important to minimize stormwater impacts, the efficient operation of septic drain fields and residential drinking water. Adequate depth to the water table is necessary to prevent groundwater contamination from septic systems or other non-point source runoff. The construction of roads, buildings and septic systems on steeply sloped areas or areas with organic and hydric soils require special design considerations. In addition, costs for developing these sensitive areas are greater than in less constrained parts of the landscape.

General soils and hydric soils information is provided through SSURGO soils data, which is the County Soil Survey prepared by the Natural Resource Conservation Service (NRCS) in digital format. Hydric soils are soils with poor potential for development. Hydric soils have high water tables and are often located within the floodplains of creeks or rivers. Areas with high concentrations of hydric soils have a wide range of limiting conditions such as seasonably high-water tables, fair to poor bearing capacities, and medium compressibility and shear strength. The locations of general soil types are shown in Figure 3-4 and hydric soils on Figure 3-5. In total, hydric soils cover 2,058 acres or 5.8% of the Township.

Soil constraints discussed in this section should be used as general guides for the planning process. Detailed on-site investigations should be conducted prior to development.

5.8 Water Resources

Both human and natural ecological systems depend upon water. Perhaps the most valuable natural resource of Marquette Township is the abundance of fresh water. Having been of historic importance, it is also the resource that will, to a great extent, determine the future of the area. Thus, the management of water becomes a prime factor in planned development. The principal reasons for controlling development on or near water are to protect watersheds, to preserve the quality and quantity of the water supply, and to prevent damaging floods.

Powell Township resides on the shores of Lake Superior. Statistics place Lake Superior as the largest Great Lake in both surface area (31,700 sq. miles) and volume (2,900 cubic miles). Not only is Lake Superior the largest of the Great Lakes, it has the largest surface area of any freshwater lake in the world. Lake Superior is bordered by the states of Michigan, Wisconsin, and Minnesota, and the Canadian province of Ontario and has a total shoreline length of 2,726 miles including islands.

The Lake Superior shoreline exists as a major attraction for local residents and tourists, and helps to form the overall character and attractiveness of the community. Lake Superior is certainly one of the most important environmental features in the Township given its overall impact on the Township's history, economy, development, and character.

In addition to Lake Superior, the Township also contains numerous smaller sized surface water bodies. A vast number of inland lakes, streams and creeks are also located within the community.

5.9 Fish & Wildlife Resources

Powell Township and surrounding environments are enriched by the diverse types and species of fish and wildlife that flourish in its waters and forests. Many fish species abound in the waters of Lake Superior, its tributaries, and inland lakes. Marquette Township, like most rural areas of Marquette County, abounds in wildlife, especially in the forested areas surrounding the developed portions of the Township. The types of local wildlife can be divided into three broad categories: mammals, birds and fish.

Mammals include whitetail deer, black bear, pine martin, skunk, raccoon, beaver, muskrat, otter, coyote, bobcat, mink, weasel, woodchuck, snowshoe hare, squirrel, and fox. Representative bird species include a wide variety of songbirds, crow, raven, woodpecker, sandhill crane, hawk, owl, eagle, falcon, and game species of ruffed grouse, woodcock, ducks, mergansers and geese. Fish include brook trout, brown trout, rainbow trout, splake, perch, bass, crappies, northern pike, and walleye.

Most of the fisheries and wildlife resources are located in the undeveloped northern portions of the Township on State and corporately owned land. Township residents, as well as numerous annual visitors, are attracted to the woods to hunt for the white-tailed deer and small game species such as snowshoe hare, cottontail rabbits and gray squirrels. Sufficient habitat is provided for relatively good ruffed grouse and woodcock hunting. Other game species of importance to trappers are beaver, otter, muskrat, raccoon, skunk and weasel. The reintroduction of non-game species such as the moose, marten and fisher has been very successful.

Powell Township also provides prime waterfowl habitat, which is supplemented by beaver dams, pothole wetlands and wooded floodplain areas. Additional habitat can be found along the shoreline of Lake Superior and the Township's many inland lakes and rivers and traditional wildlife corridors. Marquette Township, and Marquette County overall, is a major part of the Mississippi migratory flyway. Thousands of Canada geese pass over the area every fall as well as ducks and shorebirds.

Powell Township offers the sport fisherman an abundance of fishing opportunities. Michigan's official state fish, the brook trout, is a native to the Township. German brown and rainbow trout also attract many sport fishermen to the area. Lake Superior is famous for its Great Lakes sport fisheries. The fishery and wildlife are important to Powell Township which reflects the importance of maintaining a high level of water quality.



Kayak fishing on Lake Superior

5.11 Issues & Opportunities

From a planning standpoint, some of the most important features of soils have to do with the ability to support residential, commercial or industrial development. In areas not served by municipal water or sewer systems, suitability for septic tank drain fields is a major consideration. Limitations on local roads and streets, and limitations on building construction are also important. It

should be noted, however, that although the soils survey is relatively detailed, site inspections should still be used to determine the suitability of a particular site for development.

Within any particular mapping unit, areas will exist where limitations are more or less important as a result of terrain, or other features that are too small to be included in this county-wide survey. The areas mapped as "variable" on the maps accompanying this plan are soil mapping units which contain complexes of different types of soils, or areas where the original soils have been significantly impacted by human use, through filling, compaction, leveling, or other means. The limitations on uses within these types will vary too greatly to allow them to be mapped as having slight, moderate or severe limitations.

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6.0 COMMUNITY SERVICES

6.1 Introduction

Services and facilities provided by Powell Township are vital elements in the community's progress and well-being. Services include police and fire protection, municipal water and wastewater systems, and solid waste disposal. Community facilities include local government buildings, parks, libraries, and maintenance and storage facilities.

As a part of the master plan update, the Township's public and community facilities were reviewed and evaluated as to their present condition and adequacy to meet the present and future needs of the community. Facilities and services provided by other levels of government, or by private providers, which serve residents of Powell Township are also discussed in this chapter.

6.2 Powell Township Facilities & Services

Powell Township Hall

The Powell Township Hall is located just east of CR 550, at 101 Bensinger, Big Bay. The building was constructed in 1968. Governmental business is conducted in the Township Hall, including Township Board meetings, Planning Commission meetings, and elections. The Township hall houses offices for the Township, a kitchen, a meeting room, and a janitor room. The building is also used for private social gatherings and meetings of local organizations; however, space is limited.

Originally the fire department was housed within the structure, but with the recent construction of a new building, the department vacated its portion. The roof was replaced in 1998, and upgrades since then include additional exterior repairs and an upgraded computer and phone system. With these improvements, the building is in satisfactory physical condition. However, the hall needs a new heating system and offices need remodeling. The building is accessible according to standards set by the Americans with Disabilities Act of 1990.

Powell Township Fire Hall

This facility is located at 101 Bensinger, Big Bay, directly behind the Township Hall. The new facility, completed in 2004, is 60 feet by 50 feet. A pumper tank is stored at this facility, along with portable pumps used for fire protection.

Bill Dionne Halfway Fire Hall

This facility is located at the corner of CR 550 and CR KCI. This building was constructed in the late 1970's, a recent addition completed in 2004, increased the size by a third. Two pumper tanks are stored at this facility. Portable pumps are also owned by the Township and stored at the fire hall.

Fire Protection

The Powell Township Fire Department provides fire protection to the entire Township. The Department has two fire halls, as discussed above, and is staffed by volunteers, paid per diem for monthly meeting attendance and emergency runs. It operates a 1980 pumper tank at the Big Bay site, and a 1976 and a 1979 pumper at the Halfway site. In recent years, the department received a \$140,000 FEMA grant for equipment and a \$100,000 grant from Cliffs/Eagle Mine

Community Fund for pumper upgrades at Station #2. Two old portable pumps are owned by the Township; along with a recently purchased portable pump. Written mutual aid agreements exist with Marquette Township, Ishpeming Township and Michigamme Township. Verbal mutual aid agreements exist between Powell Township and the remaining townships in Marquette County.

The adequacy of fire protection is evaluated by the Insurance Service Office (ISO) Commercial Risk Inc. They use the Grading Schedule for Municipal Fire Protection. The schedule provides criteria to be used by insurance grading engineers in classifying the fire defenses and physical conditions of municipalities. Grades obtained under the schedule are used throughout the United States in establishing base rates for fire insurance. While ISO does not presume to dictate the level of fire protection services that should be provided by a municipality, reports of surveys made by its Municipal Survey Office generally contain serious deficiencies found, and over time have been accepted as guides by many municipal officials in planning improvements to their fire-fighting services. The grading is obtained by ISO based upon their analysis of fire department equipment, alarm systems, water supply, fire prevention programs, building construction, and distance of potential hazard areas, such as the central business district from a fire station. In rating a community, total deficiency points in the areas of evaluation are used to assign a numerical rating of 1 to 10, with 1 representing the best protection and 10 representing an essentially unprotected community.

ISO Completed an analysis of structural fire suppression delivery system for Powell Township. As a result, the classification for fire rating has improved. Residents may contact their insurance company to inform them that the new Public Protection Classification is 06/6x. It should lower insurance premiums. Where classified areas have a split classification, the determination of the first listed protection class is five road miles or less to responding fire station and with a hydrant within 1,000 feet, while the second listed class is five road miles or less to responding fire station, and with a hydrant more than 1,000 feet.

Water Department

The municipal water system obtains its water from wells located in the southern section of Big Bay. Powell Township water has been tested regularly and found to be in the top percentile in Michigan. Powell Township has received awards for how clean and fresh the water is. The water department has the task of monitoring the wellheads, pump house, fire hydrants, and water tower. The water system was originally installed approximately 30 years ago, and updates to the system have been ongoing.

In 2017, Powell Township was awarded a USDA Rural Development grant which provided funding to update the water system. User fees were adjusted accordingly to maintain the system. All households were converted to a metering system. Public water customers in Big Bay have metered water usage of a flat fee rate of \$45 per month. The remaining areas of the Township are served by private wells. The updated system as a whole is more reliable for water customers and enables the local fire department to be better equipped by having hydrants easily accessible.

Sanitary Wastewater Department

The sanitary wastewater system is an essential part of the community's infrastructure, is typically the least talked about or planned for. The sewer system of Powell Township was constructed in 1940 and upgraded in 2009. It is also supported by flat, monthly fees for its customers. The custodian and cemetery sextant has been overseeing the system and making update recommendations. Continuous updates of the sanitary wastewater system are a top priority of the Powell Township Board.

While the majority of homes and businesses in Powell Township rely on private septic systems for the treatment of sewage, some customers in the community of Big Bay and the Bay View plat do receive service from the system. The system dates back to the 1940s, when the Ford Motor Company operated a plant in Big Bay. With the improved system, additional hookups to the septic system are possible. The septic tank feeds into two drain fields, which are used on an alternating basis.

Solid Waste & Recycling

Powell Township features a transfer station located on Dump Road in the community of Big Bay for the disposal of solid waste. This site is also the location of the former Township landfill, which has been closed for several years. No municipal curbside pick-up is provided to Powell Township residents. A one mil levy allows property owners to dispose of waste as well as recycle at the transfer station year-round. Waste from the transfer station is then hauled to the Marquette County Landfill. Ishpeming Township residents may also use the transfer station upon payment of one mil equivalent; there are several townships that take advantage of this opportunity.

The Marquette County Landfill is located on property in the northwestern corner of Sands Township. The landfill began operations in December of 1989. The landfill accepts both Type II waste (residential/household waste) and Type III waste (demolition debris). The Marquette County Solid Waste Authority was organized in 1987 and owns and manages the operation. The appointed seven-member authority includes: three representatives at large; three members designated by the Marquette City Commission; and one member designated by the Sands Township Supervisor, who serves as chair person. The landfill receives about 50,000 tons of solid waste per year. Waste arriving into the landfill comes from all 23 units of government in the County. The waste collected from these entities either is directly hauled to the landfill or hauled to one of several transfer stations in the County prior to being delivered to the landfill.

Marquette County Solid Waste Management Authority's (MCSWMA) New Recycling Program (a new single stream recycling program) will be online in the fall of 2020. The current recycling system processes cardboard/paper recycling and metal and plastic containers on alternating weeks. This is called dual-stream recycling. Single-stream or mixed recycling allows residents to put paper, flattened cardboard, plastic, and metal containers in one container for weekly collection. This will be made possible by a material recovery facility or MRF. The facility will use technology and employees to sort these materials. MCSWMA is making investments to upgrade the MRF to handle both paper items and containers at the same time. This investment will also make it easier for residents to recycle.

Public Safety

Powell Township residents are currently served by the Marquette County Sheriff's Department and the Michigan State Police for police protection.

The Marquette County Sheriff's Department operates out of a facility located at 236 West Baraga in the City of Marquette. The department patrols roads and answers complaints, as needed. Additionally, two detectives focus more serious crimes, while a Special Operations Unit oversees volunteer search and rescue services, a marine/ORV/snowmobile patrol, a dive team, and a Hazmat-trained rescue unit. The Marquette County Sheriff's Department also features a corrections department which operates the county corrections facility in Marquette. A variety of vehicles and apparatus are available for road patrol, search and rescue, and investigative work.

Michigan State Police service is provided through the Post along U.S. 41/M-28 in Negaunee Township. They operate out of the Negaunee post and a detachment in Munising to serve Marquette and Alger counties. The Michigan State Police are in charge of enforcing state laws and investigating accidents and crimes. Additionally, a Hometown Security Team that provides homeland security functions across the U.P. is headquartered in Marquette.

Mutual aid between the communities of Negaunee, Ishpeming, and Marquette allows police departments to respond to calls outside their jurisdiction, if requested. However, their primary responsibility is to their respective communities. When law enforcement officers are called outside of their jurisdiction, it is generally in a support capacity.

Emergency Medical Service

Within Powell Township, the primary emergency medical service is provided by the Powell Township EMS. EMS is a Basic Life Support transporting ambulance service. The first responders are volunteers who carry pagers and respond to calls from the Marquette County Central Dispatch located in Marquette. The majority of responders are trained as Emergency Medical Technicians (EMT) at a basic skill level. Some are also trained in advanced levels as Specialists or Paramedics. The EMT-Basic has successfully completed an approved EMT Course which is typically about 150 hours in length. EMTs are trained in the use of Automatic External Defibrillators (AED), CPR, oxygen administration, bandaging, splinting, emergency childbirth, non-visualized airways, and the administration of some medications including epinephrine with an Epi-Pen, aspirin, albuterol, and glucose.

EMS (Emergency Medical Services), a basic life support group, is the team required to identify emergency situations, administer first aid, and transport a patient to the nearest hospital, if necessary. The EMT is given the task to give all the preliminary aids to the patient. If after preliminary aid is given, and more advanced medical help is required, the Advanced Life Support (ALS) team is requested to take over care. Upper Peninsula Health System provides the ALS for Powell Township. In certain calls, the UPHS ambulance is automatically dispatched to intercept with Powell EMS to provide more advanced medical help, including IV's, intubation, and medications not authorized by the basic service. In many of those situations, the patient will ride in the Powell Township ambulance from the scene, and the two ambulances will meet on the way to the hospital. The paramedic will then board the Powell Township ambulance and take over care of the patient with assistance from the EMT's.

Emergency Management

Emergency Management is a federally mandated position in every state. Powell Township has fulfilled this obligation ever since the President, in Homeland Security Directive HSPD- 5, directed Homeland Security secretary to develop and administer a National Incident Management System (NIMS). The Emergency Manager requires continuous educational classes in order to be reactive to any situation that may arise. The office is an unpaid, volunteer position.

911 System

Marquette County features an enhanced 911 dispatch system in operation throughout the County. Emergency calls for fires, medical emergencies, crimes, and other emergencies are accomplished by dialing the number 9-1-1; these calls go to the central dispatch located at the State Police Post in Negaunee Township, where the location of the call is displayed. The appropriate responding unit is then dispatched. The Marquette County Sheriff's Department Emergency Rescue Unit, UP Health System, Powell Township EMS, and other emergency medical service units are dispatched through central dispatch.

Educational Services

The Powell Township School District provides quality education for students from Kindergarten through 8th grade. The Powell Township School is located at 101 Deutsch Avenue in the community of Big Bay. During the 2019/2020 school year 34 students were enrolled. Upon graduation from 8th grade students have the option of School of choice and may attend Negaunee or Marquette high schools, or North Star Academy located in Marquette Township.

Local residents looking for higher education opportunities can turn to Northern Michigan University located approximately 25 miles from Big Bay in the City of Marquette. Northern offers bachelor's and master's degree programs, as well as technical training in a variety of fields. Other institutions of higher learning in the Upper Peninsula include Bay de Noc Community College in Escanaba; Gogebic Community College in Ironwood; Michigan Technological University in Houghton; and Lake Superior State University in Sault Ste. Marie.

Library Services

A small but adequate library located at the Powell Township School is available for use by Powell Township residents. Also, the Peter White Public Library (PWL) located in the City of Marquette is available to Powell Township residents. The library is located at 217 North Front Street in the City of Marquette. The facility, the largest public library in the County, features a number of programs for both youth and adults. The PWL employs approximately 30 full and part-time staff. In 2017, the library reported 217,948 items that were checked out.

6.3 Additional Facilities & Services

In addition to community facilities and services provided by Powell Township and Marquette County, a variety of state and federal offices and some private providers offer services and facilities to residents of Marquette County and beyond.

Post Office

A post office is located in the community of Big Bay. Although no mail delivery service is offered in Big Bay, those living outside of Big Bay receive their mail by motor carrier. Post office boxes are available free of charge to those residents not serviced by a mail route.

State and Federal Offices

Marquette County is the location of many state and federal agencies, including district, regional, and U.P. wide agency offices. State agencies located in the County include the Office of Aging Services, Department of Agriculture, Department of Civil Rights, Department of Consumer & Industry Services, Department of Corrections (Marquette Branch Prison), the Department of Environment, Great Lakes, and Energy, Department of Health & Human Services, Lottery Claims & Regional Office, Department of Management & Budget (U.P. Central Warehouse), Marquette District Court, Marquette Forensic Lab, Michigan Works! The Job Force, Michigan Jobs Commission Rehabilitation Services, Department of Natural Resources, Secretary of State, State Police, Department of Transportation, and Department of Treasury.

Federal agencies with offices in Marquette County include the Department of Agriculture, U.S. Army Corps of Engineers, Coast Guard, Department of Commerce (National Weather Service), U.S. Courts, Department of Justice, Department of Labor (Mine Safety & Health Administration), Department of Army 996 Engineer Co., Department of Transportation (Federal Aviation Administration), Drug Enforcement Administration, Federal Bureau of Investigation, Department of Interior (U.S. Fish & Wildlife Service), Department of Labor, U.S. Marshal's Office, Small Business Administration, and Social Security Administration.

Electric Service

Electric service in Powell Township is supplied by the Alger-Delta Electrical Cooperative Association. The company serves all residential, commercial and industrial customers of Powell Township. In recent years, upgrades to the system have come to Powell Township as a result of additional service needs provided to Eagle Mine.

Gas

Propane service is provided by a variety of private companies throughout the area. Powell Township does not receive natural gas service but the desire for this service is evident should the opportunity present itself in the future.

Telephone Service

Local land line telephone service in Powell Township is provided by AT&T Michigan. Long distance service can be obtained from several carriers which serve the area. Upgrades to and installations of wireless towers mean that many people use only cell phones.

Health Care

Residents of Powell Township can receive health care services at the new UP Health System hospital and emergency department, which is located in Marquette. The hospital features an array of services for the area. Also, Bell Memorial Hospital is located in Ishpeming and provides quality health care services.

Physicians in the area provide a broad spectrum of health care services, including cardiology, dermatology, urology, obstetrics/gynecology, pediatrics, etc., along with family practice. Dentists, optometrists and ophthalmologists, and other specialties round out the range of choices for local residents. Home health care services are offered throughout Marquette County, and hospice care is also available. Nursing homes are available in Marquette, Ishpeming, Negaunee, and Palmer.

Airport

Sawyer International Airport is located in Gwinn (20 minutes south of Marquette) and provides air service to over 60 countries on all six continents via Detroit Metro International Airport, Minneapolis St Paul International via Delta Air Lines, and Chicago O'Hare International Airport via American Airlines (Envoy).

Marquette County Road Commission

The Marquette County Road Commission (MCRC) is the local Act 51 agency for Powell Township. They serve as the local road professionals, specialists, and stewards. Their goal is to ensure reasonable safety and efficiency of all county roads, bridges, and right of ways throughout Marquette County. Their mission is to provide the residents of Marquette County in Michigan with a reasonably safe and efficient system of county roads, bridges, and right of ways, responsive and dependable services, and a close cooperation with all local governments and members of the public.

County primary roads, such as CR 510 and CR 550 are the responsibility of the Marquette County Road Commission. They also feature a storage garage in Big Bay for their road maintenance equipment.

6.4 Issues & Opportunities

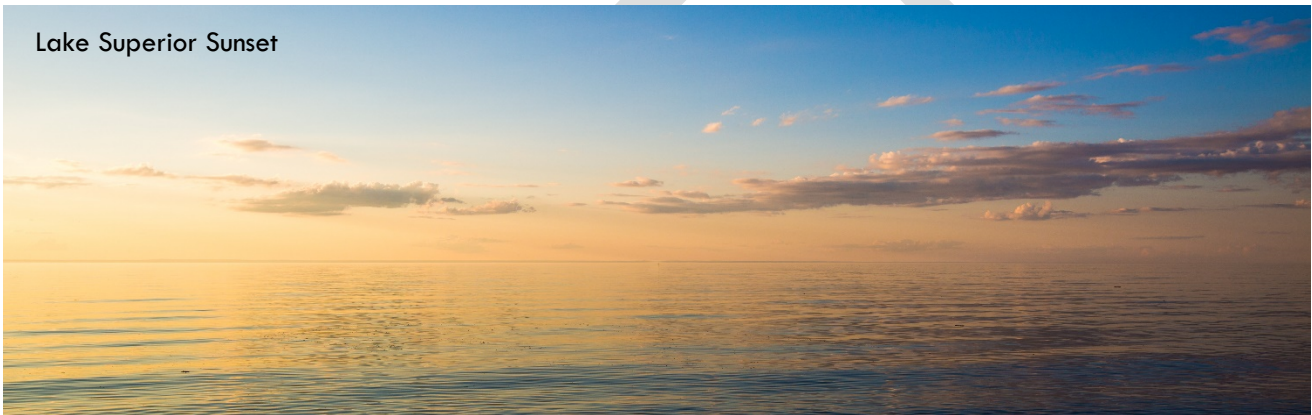
- The municipal water system in Big Bay continues to require the repair or replacement of undersized or leaking water lines. Powell Township should be mindful of the potential costs and maintenance requirements during each budget cycle. The Township desires to extend the system beyond current limits where and when feasible.
- There is a desire on the part of some residents to extend the Township water system into the Squaw Beach and Lake Independence areas. However, such a project is not cost-effective at this time. The Township Board should continue to explore funding options for these improvements if demands increase.
- Overall, Powell Township's public and community facilities provide sufficient capacity and are in good repair.

7.0 RECREATION & CULTURE

7.1 Introduction

It is important for local government leaders to understand the relationship between community parks and recreation services, economic development, and overall quality of life. The master plan update process allows Powell Township to assess current recreational assets and suggestions from community members on future needs. It allows decision makers to adjust resources for existing facilities, as well as future rehabilitation projects and programming in a manner that is fiscally responsible, publicly supported, and politically judicious. This document may be used to foster support and involvement by residents and visitors alike. A successful master planning process will transform a community's vision into concepts that will create outstanding recreation opportunities, well-maintained facilities, and a customer-focused recreation environment.

Lake Superior Sunset



Planning for the social and physical needs of a community, provides great benefits by:

- Improving the quality of life for residents
- Improving the economic value of businesses
- Providing economic development opportunities (especially tourism related)
- Attracting future residents and businesses
- Promoting healthy lifestyles
- Providing opportunities for social connections
- Protecting natural features and the environment
- Providing benefits such as flood mitigation in areas not suitable for intense development
- Providing opportunities to network and create links between other recreation locations
- Improving property values

In the case of Powell Township, outdoor recreation and tourism have become a major factor in the local economy. Simply stated, Powell Township is a four-season recreation area with facilities and programming for all ages and abilities. Miles of Lake Superior shoreline, inland lakes, waterfalls, dramatic slopes and the undeveloped character of the area, as well

as the historic significance of the community, serve to attract new residents and visitors to the Township.

Powell Township also contains vast amounts of land open to hunting and fishing. Lands designated as Commercial Forest Reserve (CFR), while remaining in private ownership, must be open to the public for hunting and fishing. These lands, together with the state land in the Township, provide further recreational opportunities to residents and visitors alike. Other large land holdings also contribute to the pristine nature of the Township's land cover, including the Huron Mountain Club and the Yellow Dog Watershed Preserve. The Blue-Ribbon trout waters of the Yellow Dog River and the Salmon-Trout River are also located within the Township's Boundary.

In recent years, and with the assistance of private land owners, volunteers, the Recreation Committee, and the Township Board, much effort has been placed on developing and maintaining motorized and non-motorized trails in the community. Partnerships with the Noquemanon Trail Network (NTN) and other local trail groups provide technical assistance and guidance in these efforts.

7.2 Powell Township Recreation Assets

This section of the plan provides an inventory of existing parks, recreational facilities, and natural resource assets located within the community. It should be noted that a recent update of the [Powell Township Recreation Plan](#) has recently been completed with a full description and further information. As well, the Center for Responsible Tourism (CREST), has been working with community leaders to further enhance recreation and tourism in the area. When the CREST document is completed, local officials should consider the recommendations provided in order to increase marketing efforts to highlight what the area has to offer.

Township-owned Recreation Facilities:

Draver Park: This site is located at the intersection of Balke and Schneider Avenues and is adjacent to residential land use. It is located on the western edge of the community and includes one softball field, a playground, picnic sites, a concession stand, as well as a storage building with restrooms. Draver Park is near the Powell Township Elementary School and is available for student use.

Halfway Fire Hall Playground: This park is adjacent to the Township's Fire Hall near the Halfway location on County Road 550. The park includes playground equipment and serves the youth at the residential cluster near the Township's southern border.

Halfway Ball Field: The Township owns 28 acres south of Brown Deer Road at the intersection with CR 550, across 550 from the Halfway Fire Hall. This site was formerly used as a ball field, but is currently unused.

Burns Landing: Powell Township owns 3.85 acres of land on the Lake Superior shoreline just west of the Big Bay Harbor. The historic Burns Cabin is located on this property; this small log structure was one of the first buildings built in the Township, and is well over 100 years old. Recent improvements at the site include a handicapped-accessible toilet placed at the edge of a gravel parking area, a boardwalk built between the cabin and the beach and installation of benches and grills. This site also includes a portion of the area known as Squaw Beach, a

popular swimming area on Lake Superior. The beach is unguarded and undeveloped, but receives significant use.

Thomas Rock: Thomas Ten acres of land along CR 510 about a mile south of CR 550 were donated to Powell Township for use as a recreational site. The Township acquired 379 acres of forest land around the original site in 2010 through a grant to protect wildlife habitat and extend the existing trail system. Locally known as “Gobbler’s Knob,” this high point offers panoramic views of Lake Superior and Lake Independence. The site has been developed as an overlook area with fence and guardrails installed, as well as restroom facilities, a picnic area, and non-motorized trails.



Other Public Recreation Facilities within the Township:

Perkins Park: This 71-acre county park is located on the western shore of Lake Independence in the community of Big Bay. The park includes 76 campsites, 50 with electricity, and 37 of those sites with full hookups (water, electricity and sewer). The remaining 24 sites are primitive sites. Other facilities include a swimming beach, playground, restrooms, bathhouse with showers, boat launch, fishing pier and fish cleaning station. The boat launch, fishing pier and fish cleaning station were completed in 1998, along with bank stabilization along the shoreline. Construction of two new restroom/shower buildings, conversion of the existing bathhouse to a pavilion took place in 2002. Spring 2004 saw development of several new pull-through campsites with electric, sewer and water hook-ups; road alignment for better access within the park; separation of day-use and camping areas with landscaping and vegetation; stabilization of the Lake Independence shoreline and construction of a boardwalk on an abandoned railroad grade with observation decks overlooking a wetland. Eventually when additional funds are available, the campground office will be relocated to a centrally located site.



Perkins Park, Big Bay Michigan Thomas Rock Scenic Overlook Entrance Sign

Big Bay Harbor of Refuge: Located just north of Big Bay on Lake Superior, the Big Bay Harbor offers transient dockage, fuel, water, restrooms and showers, holding tank pump-out, a public telephone, launch ramp and parking. The harbor has a 275-foot long sheet pile and concrete

mooring bulkhead with ten slips. Improvements have included shoreline stabilization, dredging, bulkhead extension, subsidence correction, and renovation of walkways and finger piers. Marquette County owns and operates the harbor.

Powell Township School: The Powell Township School (K-8) is located at 101 Deutsch Avenue in Big Bay. Recreational facilities available at the school include a playground, two tennis courts, a basketball court, and the school gym. Powell Township School won a 2011 Educational Excellence award.

Privately-owned sites:

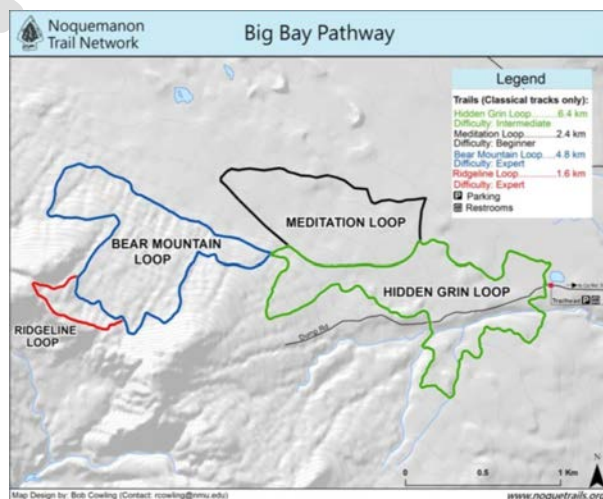
Huron Mountain Club: The Huron Mountain Club was formed in the early 1890s by a group of prominent Marquette residents. The families built cabins and a lodge at the mouth of the Pine River, and used the Club as a summer vacation retreat. In the early 1900s the Huron Mountain Club was reorganized and memberships were held primarily by wealthy families outside Marquette County. The Huron Mountain Club remains in existence today, and owns nearly 26,000 acres in Powell Township. All Club holdings are limited to access by members only; however, the Club does attract many visitors to the area and provides employment to area residents.

Yellow Dog Preserve: The Yellow Dog Preserve is run by a local group actively working to preserve the Yellow Dog River in its natural state. Along with a variety of educational programs, the group is seeking opportunities to purchase property and/or establish conservation easements along the river. Currently the group owns 160 acres in the Township at the mouth of the Yellow River. This tract, the Jean Farwell Wilderness, is a protected area and is open for public use.

Big Bay Pathway: The Big Bay Pathway represents a beautiful trail system surrounding the Upper Peninsula's Big Bay community. It offers four seasons of use but is particularly well known for its unique cross-country ski trail system and the annual "Honey Bear Classic" ski race.

Trail Systems

Big Bay Pathway: The Big Bay Pathway, located on the western edge of Big Bay off Dump Road, is part of the Noquemanon Trail Network (NTN). NTN is a non-profit membership-based organization whose mission is to secure, develop, maintain and promote the use of non-motorized trail networks throughout the Central Upper Peninsula. The trail system offers three backcountry skiing loops for beginners, intermediate and expert skiers with a combined total of 16kms of trail.



Saux Head Trails: This trail system is approximately 12 km of non-motorized trails located in Powell Township, about 14 miles north of the City of Marquette off County Road 550. The Saux Head trails wind through towering old growth white pines and hemlocks around Saux

Head Lake. The trails are moderately challenging and offer skiing, biking, and hiking, depending on the season. Dogs are welcome on a leash per Michigan law.

Big Bay 550 Snowmobile Club Trails: Snow is an abundant recreational asset in Powell Township. The township's large tracts of undeveloped land offer extended riding opportunities. Many of the trails utilize Commercial Forest Act (CFA) lands and county road rights of way that are typically for snowmobiles only. The Big Bay 550 Snowmobile Club, located in Big Bay, maintains 70-140 miles of snowmobile trails. These trails connect to other snowmobile trails maintained by other snowmobile trail organizations and comprise the U.P. wide snowmobile trail system developed by the Michigan Department of Natural Resources.

Powell Township's steep terrain and many rivers combine to form many waterfalls, some of which are relatively large. While some waterfalls are within Huron Mountain Club holdings and are not easily accessible to the public, others, such as Alder Falls near Big Bay are readily accessible. Some falls located on public or CFR lands require driving and/or hiking for several miles.

Powell Township and surrounding areas are very popular with snowmobilers. The Lake Superior snow-belt tends to have more reliable snow cover than other parts of the U.P. and Powell Township offers large tracts of relatively undeveloped land. Many trails crisscross the area and connect with Baraga County to the west, Marquette to the southeast, and Ishpeming and Negaunee to the south. These trails utilize CFR lands as well as road rights of ways. The 550 Snowmobile Club, based in Big Bay, maintains 70-140 miles of snowmobile trails, which connect the trails maintained by other organizations.

7.3 Regional Recreational Assets

Residents and visitors to Powell Township area also served by a wide variety of parks, beaches, lakes, rivers, and trails throughout Marquette County. Highlights include the Marquette Mountain downhill ski area, Sugarloaf Mountain scenic viewing area, Presque Isle Park on the shores of Lake Superior, and Tourist Park campground on the Dead River. In addition to these regional outdoor recreation facilities, many Powell Township residents use indoor facilities which are unavailable in the Township such as the YMCA and Lakeshore Arena ice rink. The Iron Ore Heritage Trail, North Country Trail, and Noquemanon Trail Network provide hiking, biking, and cross-country skiing opportunities throughout the County.

North on County Road 550 from the City of Marquette to Big Bay, there are abundant natural areas for recreation seekers. Hiking and biking trails lead to natural features and spectacular views of Lake Superior such as the Sugar Loaf Mountain Natural Area, a 3,200-foot trail of pathway, and stair segments that lead to the summit 470 feet above Lake Superior. Sugarloaf Mountain is easy to access from County Road 550.

The trails are safe and easy to follow with little chance of becoming turned around, making Sugarloaf a favorite for visitors to the area that are capable to climb. Once at the top, the view is rewarding. Sugarloaf Mountain is owned by Marquette County and connects to the Escanaba River State Forest, which includes popular sites such as Hog Back Mountain, Wetmore's Landing, Harlow Lake and Little Presque Isle. Each of these sites is linked together with various trail systems.

7.4 Historical Assets

Powell Township contains a wealth of sites and buildings which recall the early days of settlement.

Some of these sites are officially designated by the state or federal government, while others are not. These sites serve to attract visitors to the community, and serve as a reminder of the area's rich past.

Burns Cabin: This one-story log cabin was built in the 1860s, and may have been the first permanent residence in the Big Bay area. It is located near Lake Superior in the area known as Burns' Landing. A boardwalk has recently been built from near the cabin to the Lake Superior, and a handicapped-accessible outhouse has been installed. The cabin is currently boarded up, but there is interest in restoring the structure and perhaps using it as a museum.

Big Bay Point Lighthouse: The Big Bay Point Lighthouse is located on a bluff above Lake Superior, about three miles northeast of Big Bay. The lighthouse was completed in 1896 as a two-story brick dwelling with a total of 18 rooms, providing living quarters for two families. The light tower is about 60 feet tall. Operated as a lighthouse until about 1960, it has since been converted to a bed and breakfast. The structure is listed on the State and National Registers of Historic Places.

Thunder Bay Inn: This structure was built in 1911 and was used as a combination store, post office, barber shop and livery. In 1940, Henry Ford purchased the lumber mill on Lake Independence and a number of other properties, including this building. He rebuilt the building as a retreat, with sleeping room, meeting facilities, and dining rooms. When Ford died, the building was sold, and was used as a hotel under various ownerships until the early 1980s. In 1959 a portion of the movie "Anatomy of a Murder" was filmed at the hotel; the present dining room was added at that time. After sitting vacant for a few years in the 1980s, the hotel was reopened and continues to operate. It is listed on the State Register of Historic Places.

The Huron Mountain Club: This club was organized in 1891, and was reorganized a few years later. The Club owns thousands of acres of land West of Big Bay, including several lakes. Many of the buildings located at the mouth of the Pine River, at Ives Lake, and elsewhere on the club's property were constructed in the early part of the 20th century. Club members included local residents who were instrumental in building the early economy of Marquette County, such as Peter White and J.M. Longyear, as well as wealthy individuals from Lower Michigan and Chicago, such as Henry Ford.

Granot Loma: Construction of this huge summer home of the Louis Kaufman family began in 1919 and was completed in 1927. Built on a point extending into Lake Superior near Garlic Island, the lodge contains over 30 fireplaces, an 80 x 40-foot sitting room, huge light fixtures made from tree roots, and many other unique features. The name Granot Loma was made up of the first two letters of the Kaufman's first five children, Graveraet Young, Ann Elizabeth, Otto Young, Louis Graveraet, and Marie Joan. The building and surrounding lands remain in private ownership, and are not generally accessible to the public. Granot Loma was listed on the National Register in 1991.

Bay Cliff Health Camp: Bay Cliff is a summer camp for handicapped children, located on the site of the former J.B. Deutsch home. J.B. Deutsch was the superintendent of the Lake Independence Lumber Company and in 1912-13 had a large home built on the bluff above Squaw Beach. In 1934 the property was converted to a camp for underprivileged children, and has since evolved to serve the handicapped. Other structures have been built during the time the property has been operated as a camp, but the Deutsch home remains.

Former Ford Plant: A smokestack and some buildings are still visible on the north shore of Lake Independence, on the site where several different lumber mills operated. During the 1940s, the mill produced wooden parts for Ford automobiles; previously it had produced hardwood lumber, wooden bowling pins, flooring, and wooden parts for some Buick automobiles. After Ford closed the mill in 1949, it was reopened again and operated for a few years as a lumber mill. The smokestack and buildings are located on private property.

Huron Islands Lighthouse: This granite and mortar lighthouse was built in 1868, and is located on the northeast corner of Huron Island, the largest island in the Huron Islands chain. The lighthouse structure has not been used since the early 1960s, and has suffered from deterioration and vandalism. The roof is leaking, allowing water to enter the building, and vandals had reportedly destroyed the interior of the building before windows and doors were boarded up to prevent entry. The lighthouse is owned by the U.S. Fish and Wildlife Service, which administers the Huron Islands National Wildlife Refuge. However, the U.S. Coast Guard continues to maintain the light itself, now powered by solar panels. The islands are accessible only by boat, and high winds and waves often make access difficult. In late 1998, a group known as the Huron Island Lighthouse Preservation Association was formed in Baraga County. The group has visited the island and examined the structures, and hopes to raise funds to repair the roof, stabilize the structure, and repair a deteriorated dock in order to improve access to the island. The lighthouse is listed on the National Register of Historic Places.

Camp Sosawagaming: Built by J.M. Longyear in 1897, the Sosawagaming Club operated as a private club for a few years and then became the Sosawagaming Hotel until 1910. The Club was located at the mouth of the Iron River; at that time, there was a bridge across the river there. A tote road ran along the lakeshore there, and was used to haul supplies to the Huron Mountain Club and lumber camps in the area. After the hotel venture failed, the club was sold and used as a boys' summer camp for several years; it is now a private camp.

Lumberjack Tavern: This building in Big Bay currently is operated as a tavern, and was the location of the shooting which resulted in the trial used as the basis for the book and movie "Anatomy of a Murder." "Bullet" holes can be found in the wall, although it is unlikely that those holes actually resulted from the murder.



The Depot: The Depot was built in 1905 at the northern terminus of the railroad from Marquette. In the 1940s it was moved a short distance down the tracks to its current location. It is currently privately-owned and has been converted into a hotel.

CCC Camp: A Civilian Conservation Corps camp existed during the 1930s near Big Bay. No evidence of this camp remains, although there is a sign commemorating the camp near Alder Creek.

Granite Island Lighthouse: Granite Island is a small, rocky island located 11 miles northeast of Marquette and about six miles offshore. The 2 ½-acre island is within Powell Township, and is currently owned by the U.S. Coast Guard. A lighthouse was built on the island in 1868, and the light was automated in 1939. The light is still maintained by the Coast Guard. Buildings include a house, outhouse, and oil storage facility, as well as a steel structure which houses the present navigational light. The lighthouse was listed on the National Register of Historic Places in 1969. The Coast Guard has since sold the island to a private owner who occasionally hosts events.

7.5 Future Recreation Projects

The Action Plan found in the 2020-2025 Recreation Plan for Powell Township lists the below projects slated for completion within the next five years. The Action Plan is intended to be a living document that is revisited by the Powell Township Recreation Committee annually to help guide the committee and the Township Board on their ability to improve recreational offerings, as funding and resources become available.

Parks Project	Estimate	Timeframe	Funding Source
Draver Park: Improvements to ADA parking. Implement Level 1 according to SAIL Report.	\$300	2020	Local Funds
Halfway Park and Ball Field: Work with students and their parents at the Halfway Location to develop feasible improvements to the park. Seek volunteer assistance.	N/A	2020	Local Funds, Grants, Donations
Draver Park: Restroom and playground improvements, accessibility improvements	\$300,000	2021 – 2023	MDNR Trust Fund, Local Funds, Volunteers
Halfway Location Parks: Develop plans and cost estimates for improvements to Halfway location and determine need in funding.	N/A	2022	Local Funds, Grants, Donations, Volunteers
LeClair Cabin: Restoration of site. Develop plans and cost estimates.	N/A	2024-2025	Local Funds



Fly fishing in Powell Township

Trails Project	Estimate	Timeframe	Funding Source
Non-Motorized Trail Connections: Begin the planning phase of single track development on CR 510 while working with neighboring townships and trails organizations to collaborate resources.	N/A	2020	N/A
Non-Motorized Trail: Begin construction phase of single tracks on CR 510	TBD	2021	Local Funding, DNR Grants, Donors
Begin dialogue with Marquette County about private business access to Perkins Park and Big Bay Harbor to provide additional recreational benefit for visitors and residents.	N/A	2020	N/A
Map out bike route potential along or on streets of Big Bay to connect to local businesses and parks and recreation facilities. Seek cost estimates for project, break up into multiple phases of development to reduce annual costs.	TBD	2020	Local Funds, Grants, Donors, DNR Grants
Begin design and construction of phased bike route. Seek funding assistance for creative wayfinding signage for new bike route users.	TBD	2021	Local Funds, Grants, Donors
Install wayfinding signage along the bike route. Continue phased bike route development.	TBD	2022-2024	Local Funds, Grants, Donors
Begin discussion and coordination with partners at Marquette County, NTN, and local supporters of the Hiawatha Water Trail to improve signage and communication for improved safety along the water trail.	TBD	2020	Local Funding, DNR grants

7.6 Local Food Production

Local food production and the ability for residents to grow their own food was a significant topic of discussion during the development of this plan. Food is often produced hundreds, sometimes thousands of miles from where it is consumed requiring significant energy consumption for handling, transportation and storage and resulting in significant food waste from spoilage during its journey. According to a study published in the Public Library of Science, 40% of food is wasted in the U.S. That figure measured waste occurring throughout the entire food system starting at the farm and ending at what ends up thrown away as plate scrapings. Not only is that a huge amount of physical waste; a tremendous amount of energy, soil fertility and water is also squandered.

The lack of fresh, local food significantly impacts our diet and health. We tend to eat what is available, which has typically been highly-processed food that can handle long distance travel and has a long shelf life. The obesity epidemic is one of the most visible and obvious indications that the industrialized food system has had a significant and negative health impact.

Moving forward, the Planning Commission will work to improve the accessibility of local food production by reviewing existing limitations and by working with our surrounding municipalities to develop more modern policies and zoning language that will allow better access to local food and a higher quality of life. The history of food production and the current trend toward incorporating new principles and zoning regulations into the community, will enable increased production of local food and a healthier citizenry.

7.6 Issues & Opportunities

- The amount of recreational land in Powell Township is in excess of that required to meet national standards based on population. These local sites serve to attract visitors and provide resources unique to the area.
- The 10-acre site at Thomas Rock offers an quality opportunity to view Lake Superior, Big Bay, and the surrounding area.
- There are a variety of improvements needed at Township recreational areas. These improvements are included in the 2020-2025 Powell Township Recreation Plan update.
- The Big Bay Harbor should continue with dredging, as needed, to maintain adequate depths for boaters.
- The 28-acre site at Halfway continues to offer potential for additional recreational development.
- The recently completed US-41 underpass in Marquette Township further enhances snowmobile accessibility to Powell Township.
- Work with adjacent municipalities to ensure that regional motorized and non-motorized trail planning includes connectivity to Powell Township.
- Sites outside of Powell Township, such as Sugarloaf Mountain, help to enhance the "package" of recreational opportunities which attract visitors to the area.
- Continue to strive for all parks and facilities in the system to align with the Americans with Disabilities Act, where and when feasible.
- Several historic sites are located within Powell Township. These sites offer a link to the community's past for current and future residents. There may be opportunities to enhance some of these sites in the future; either through restoration; protection through formal listing on the State or National registers; and interpretation of the sites for educational purposes.

8.0 LAND USE

8.1 Introduction & History

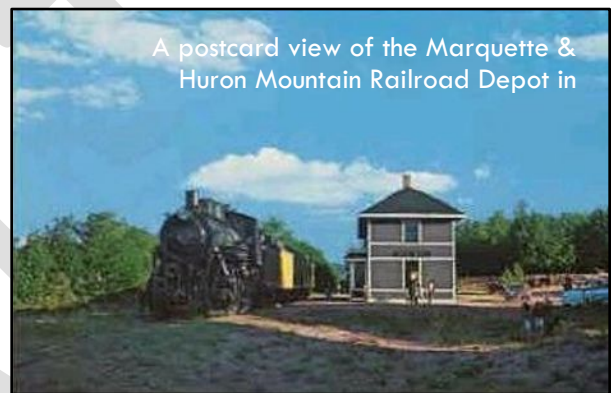
Land use types in Powell Township have evolved over time due to the area's natural resources and unique, natural landscape. The lumber industry was the primary economic driver in the Township prior to any significant settlement. In 1877, White Pine harvesting began near Lake Independence. The logs were shipped to Canada and England where they were used in shipbuilding. In 1901, the Big Bay Lumber Company began operations in Big Bay. At that time the road from Marquette was a "corduroy" road; the journey from Marquette to Big Bay by land took two days.

The primary means of access to Big Bay was by boat until a railroad was completed between Marquette and Big Bay in 1905. After construction of the railroad, other communities sprang up at points along the rail line. These communities were closely tied to the lumber industry, and included Birch and Natpo. After only a few years of existence, these towns disappeared, as the homes and sawmill equipment were moved to other locations.

The site of the Big Bay Lumber Company remained in use as a lumber company for nearly 50 years, under a variety of owners. In 1943, Henry Ford purchased the mill and associated properties in the Big Bay area, and made a significant investment in upgrading the mill and equipment, as well as other structures in the Big Bay area, such as the former company store, now known as the Thunder Bay Inn. The Ford mill ceased operation in 1949, a couple of years after Henry Ford's death.

A mill built on Lake Independence by Cram & Crocker operated for a period of time, alleviating some of the unemployment caused by layoffs at the Ford plant. The Northwest Plywood & Veneer Mill was also established around this time, located off Triple A Road west of Big Bay. However, the closure of these mills marked the end of the large lumber mill operations in the area.

Even before the Big Bay Lumber Company began operation, the area had been discovered by people who valued the vast forests, Lake Superior shoreline, and inland lakes of the Huron Mountains for their scenic beauty and solitude, rather than as a source of timber. The Huron Mountain Club was formed in the early 1890s, by a group of prominent Marquette residents. These families built cabins and a lodge at the mouth of the Pine River, and used the Club as a summer vacation retreat. In the early 1900s the Huron Mountain Club was reorganized and memberships were held primarily by wealthy families from outside Marquette County. Henry Ford was a longtime member of the Club, even before purchasing the lumber mill and many surrounding properties around Big Bay. The Huron Mountain Club remains in existence today, and it encompasses nearly 20,000 acres in Powell

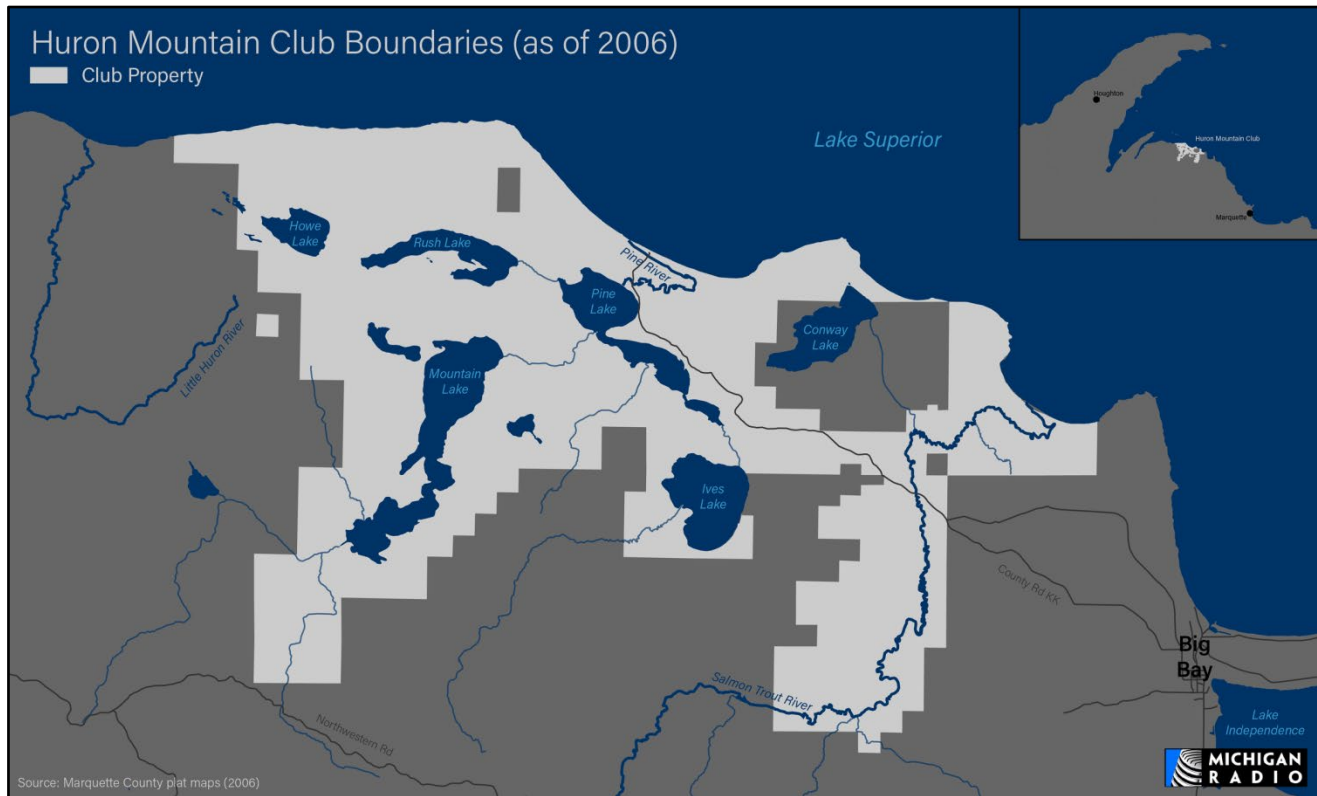


A postcard view of the Marquette & Huron Mountain Railroad Depot in



Big Bay Lumber Company, circa 1930.

Township.



Other areas in Powell Township were sought after for recreational pursuits. The Sosowagaming Club was built at the mouth of the Iron River in 1897, and operated for several years, until it was converted to a hotel. The property operated as a hotel until 1910, and was then used as a summer camp. J.M. Longyear built a camp at Ives Lake, which was separate from Huron Mountain Club property even though it was located adjacent to Club holdings. In 1919, Louis Kaufman began construction of a lodge on the shore of Lake Superior at Garlic Island. The lodge was completed in 1927, and was named Granot Loma, a name incorporating the first two letters of the names of the Kaufman's first five children. This huge lodge still stands today, and is in private ownership. A dairy farm known as Loma Farms, operated for many years just inland from Granot Loma, and Loma Farms' holdings now exceed 3,000 acres in Powell Township.

J.B. Deutsch, who ran the Lake Independence Lumber Company beginning in 1910, built a large home just north of Big Bay in 1912-13. Known as Bay Cliff, this home was built on the bluffs overlooking Lake Superior. In 1934, this home and surrounding property was converted into a camp for underprivileged children. Bay Cliff Health Camp currently encompasses 170 acres.

While the rich deposits of iron ore that shaped the development of much of Marquette County were not present in Powell Township, other mineral resources did play a part in shaping local land use patterns. A gold mine operated in the Township from 1901 until about 1907, but was unsuccessful in finding any significant deposits. Two sandstone quarries also operated in the Township, one at the mouth of the Salmon Trout River and the other at Thoney's Point.

8.2 Current Land Use

Today, logging, recreation, and tourism are the backbone of the local economy. The Huron Mountain Club continues to draw visitors from its membership, which now largely consists of residents of Lower Michigan. Tourist oriented businesses in Big Bay, along with the County-owned Perkins Park campground on Lake Independence, offer services to those drawn to the area's natural beauty. Large amounts of the Township are in a Commercial Forest Reserve (CFR) designation, much of this owned by Longyear Realty Corporation and Mead Paper Corporation. These CFR lands provide the raw materials that are trucked to paper mills in other parts of the Upper Peninsula, or to lumber mills.

The general land use pattern in Powell Township consists of corridor development along County Road 550, surrounded largely by undeveloped forested areas.

8.3 Residential Land Use

Scattered residential development, both year-round and seasonal, exists along CR 550 throughout the Township, with concentrations along Johnson's Road, Remington's Road, Squaw Beach Road, and Homeier Road. The largest concentration of residential and commercial use is in Big Bay and along the shore of Lake Independence. There is also an area of residential development on the west shores of Saux Head Lake, north of County Road 550. Additional residential development can be found on CR 510 south of CR 550. As the beauty of the area becomes increasingly more popular, and as technology makes it easier for people to work and do business at remote locations, additional residential development is expected. However, in areas where development exceeds the capacity of the site to support on-site wells and septic systems, groundwater contamination can occur, and septic systems can fail. In such cases, residents often look to local governments to help provide a solution in the form of public water or sewer systems. Such systems are expensive, and may not be cost-effective to operate in areas of low-density development.

8.4 Commercial Land Use

As Powell Township continues to realize its potential to attract visitors to its scenic beauty, there may be interest in expanding the commercial sector of the Township. Well-planned commercial development can provide necessary services without detracting from the area's beauty and rural character. Commercial establishments can be grouped, with one or two shared access points to increase safety. Commercial development should be provided on sites that are physically capable of providing adequate drainage, access, sewage disposal and room for potential expansion. Development in areas which lack utilities and access, or which are not physically capable of supporting development, should be discouraged. Additional commercial acreage may be needed to expand businesses resulting from increased recreation and tourism traffic, and from the proximity of Big Bay from Eagle Mine.

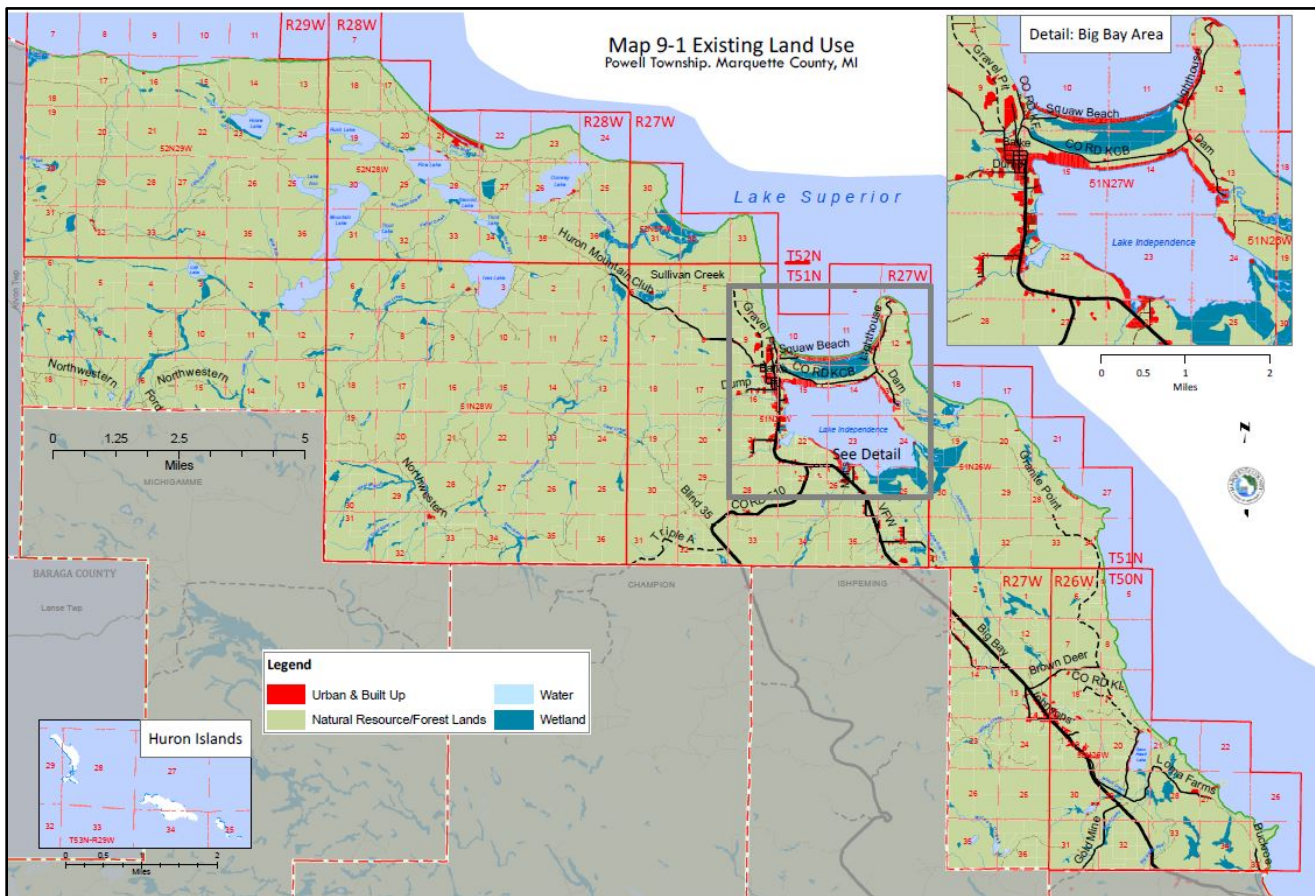
8.5 Industrial Land Use

Industrial land use in Powell Township is limited somewhat by the distance to markets and the lack of sewer and water in the majority of the Township. However, some light industries, including small manufacturing and assembly companies which do not require large volume of water or generate toxic effluent may be suitable for the area. Typically, these types of companies produce small products which do not require large volumes of truck traffic. They also rely on the internet, e-mail,

fax machines, and other forms of communication to market their product.

8.6 Forestry & Agricultural Land Use

Map 9-1 shows the predominance of forested lands in Powell Township. This area includes primarily private lands, thousands of acres of which are managed as commercial forest under the Commercial Forest Act. Nearly 20,000 acres are owned by the Huron Mountain Club, with restricted access. A small amount of State of Michigan Forest Land is also located within the Township.



Commercial forest land, designated as Commercial Forest Reserve, or CFR, allows for public access for hunting, fishing, hiking, etc. Residential uses or other non-forestry uses cannot occur on these lands while they are in CFR status due to the property tax reduction for this designation. The major owners of CFR lands in Powell Township are Longyear Realty Corporation and Plum Creek. These and other companies actively manage their lands for timber production, with logs harvested in the Township going to supply paper mills and sawmills throughout the U.P.

Agricultural uses historically included Loma Farms east of Saux Head Lake and farming operations associated with the J.B. Deutsch farm at Bay Cliff. The climate and terrain of Powell Township are generally not conducive to agricultural uses, however, and such use has not been an important part of the area's development. Future prospects for agricultural land uses are limited; however, there is a desire from residents to develop small-scale, residential agriculture in the community.

8.7 Public Land Use

Public land uses in Powell Township include parks, public buildings, schools and tracts of publicly-owned lands. Many of these uses are discussed in more detail in other chapters of this plan; however, the land use considerations associated with these uses will be discussed here.

Parks in Powell Township include Thomas Rock, Draver Park, and Burns Landing, which are owned and managed by the Township. Perkins Park & Campground, and the Big Bay Harbor of Refuge are owned and maintained by Marquette County. The State of Michigan also provides a public access site at the mouth of the Huron River in the northwest corner of the Township. Other state-owned lands in the Township are also available for hunting, fishing, hiking and other forms of outdoor recreation.



Public buildings in the Township include the Township Hall/Office and fire stations. These buildings and other public buildings outside the Township which serve Township residents are discussed in more detail in Chapter 6, Public and Community Services Facilities.

Examples of quasi-public land uses include churches, recreational sites and similar facilities that are owned by private enterprise, but are open to the public. These uses generate increased traffic on a seasonal, occasional or intermittent basis, and by providing facilities and services which meet the needs of local residents, contribute to the quality of life of communities and neighborhoods. The presence of quasi-public facilities such as churches may also influence property values. In addition to serving as places of worship, churches often serve as community gathering places, for social events and local meetings.

8.8 Land Ownership

Land ownership in Powell Township has a significant effect on land use. Large tracts of land in CFR status, plus the presence of the large tract of land owned by the Huron Mountain Club mean that less land is readily available for private development. However, these lands provide recreational opportunities and, in the case of CFR lands, raw materials for the wood products industry. It is also questionable whether some of these areas would be desirable for more intensive development, due to terrain, remote location, and other site characteristics.

Another large land-owner in the Township is Loma Farms, with about 5,200 acres east of Saux Head Lake between CR 550 and Lake Superior. This property includes Granot Loma and the buildings of Loma Farms, and has potential for development as a recreational property, utilizing the huge lodge,

and/or as a residential subdivision.

The State of Michigan owns about 2,800 acres in the Township, while the federal government owns 147 acres encompassing the Huron Islands in Lake Superior just north of the mouth of the Huron River. The Huron Islands are managed by the U.S. Fish and Wildlife Service, known as the Huron Islands National Wildlife Refuge. Access to the Huron Islands is difficult, and the area receives few visitors. The islands have been a wildlife refuge since 1905, and a wilderness area since 1970. In addition to a large herring gull population, the islands contain an abandoned lighthouse and outbuildings. While the buildings are no longer occupied, the light has been automated and is maintained by the U.S. Coast Guard.

8.9 Land Use Trends

The overall recent trend in Powell Township land use has been residential. Although, continued upgrades to local businesses, as well as capitalizing on recent trends in the recreation and tourism industry may lead to additional support-type business opportunities. Continued enhancement of recreation and tourism opportunities should be considered when discussing future land use decisions.

The Township is expected to continue to see growth in both year-round and seasonal residential use. Waterfront areas continue to be the most desirable for residential development, with new homes interspersed between older residences. Since waterfront areas are typically more susceptible to environmental degradation, efforts should be made protect the waterfront values. Overly-dense development in waterfront areas may result in a loss of the unique character of these areas.

While recent development has added to the Township's property tax base, studies in other parts of the state have indicated that much new residential development does not generate enough new tax revenue to cover the cost of providing services. In the case of development in areas where sewer and water are not available, the costs of providing services may not be that high at this time; however, if additional services are needed in the future, scattered development could make provision of municipal services very expensive.

8.10 Issues & Opportunities

- Powell Township's large expanses of waterfront property offer an opportunity for future residential and recreational development.
- The recent efforts to brand and market the natural beauty, recreational opportunities, and unique character of Powell Township, offers an opportunity to attract more visitors and residents to the community.
- The scale of future residential, commercial and industrial growth is linked to the transportation network in the Township, particularly CR 550. The Road Commission has made improvements to the roadway, which enhances the potential for growth.
- There are areas within the Township which, because of terrain, wetlands, or the presence of unique habitats or species, are not suitable for development.
- The opportunity may exist to guide commercial development towards areas where strip commercial development is minimized, access is controlled, and the rural character of the community is maintained.

9.0 PUBLIC PARTICIPATION

9.1 Introduction

The success of any planning process is reliant upon stakeholder involvement. Powell Township officials solicited community involvement to maximize the effectiveness of the Master Plan update process by holding an Open House/Public Input Session, and by conducting a Community Survey in 2019. As such, Powell Township residents and business owners played a pivotal role in the preparation of this Master Plan update by participating in one, or both of the public input instruments.

9.2 Powell Township Community Survey (2019)

The first page of the community survey asked respondents to provide their opinion on the importance of various topics that Powell Township officials sought opinions on (A-J). Thirty-five completed surveys were received leading to the below 2019 Powell Township Community Survey results:

Issues	Very Important	Somewhat Important	Not Sure	Not Important
a. Additional water/sewer availability?	8	10	4	12
b. Alternative Energy?	7	19	5	5
c. Recreational Marijuana dispensaries in our Township?	6	6	4	18
d. Service level of current Zoning Ordinance?	18	7	8	0
e. Parks and Recreation?	26	9	1	0
f. Fire and Ambulance?	30	5	0	0
g. Blight?	20	12	3	1
h. Future Land Use of Township Property?	23	13	1	0
i. Short Term Rentals /tiny houses?	15	10	2	5
j. Green Burials/private cem.?	4	16	9	1

2019 Powell Township Community Survey Results

Clearly, the continued provision of recreational opportunities, fire/ambulance service, and the removal of blight were of significant importance to survey respondents. Additionally, future land use and the service level of the Powell Township Zoning Ordinance also scored high on the list important issues, moving forward.

The second page of the two-page community survey featured a question asking which three (3) of the statements regarding Powell Township's future from the list in Question #1 were most important. Respondents were asked to use the corresponding letters from the issues listed in Question #1, and write in the letter for their 1st, 2nd, and 3rd choices. The result of that survey question is as follows:

- 1st – E. Parks & Recreation
- 2nd – G. Blight
- 3rd – E. Parks & Recreation

Regardless of their level of importance, the top votes regarding issues in Question #2 were as follows:

- 1st – E. Parks & Recreation & H. Future Land Use of Township Property (16 votes)
- 2nd – G. Blight (14 votes)
- 3rd – F. Fire & Ambulance (13 votes)

The Community Survey concluded by asking respondents to provide additional written comments regarding the Community of Powell Township. The written comments recorded from the survey are listed below (in no particular order), relevant to various community issues:

Short Term Rentals

- *Vacation rentals are a must in our community. It's a big part of our economy.*
- *We need the housing that is for rent. It is a great service that the home owners provide.*

Zoning Districts

- *Zoning should apply to everyone but needs to be less restrictive. Should be allowed to burn in barrels.*
- *We need to strengthen our zoning to protect 40 acre parcels.*
- *It is important about Powell Township land and protect it.*

Parks

- *Add more campsites at Perkins Park.*
- *New restrooms at Draver Park.*

Trails

- *ATV's and snowmobile trails provide income and stability for a future in tourism. They are the people who support local business.*
- *Hiking and skiing trails should be made around Big Bay but a trail from Big Bay to Marquette would not be cost effective or bring much tourism to town.*
- *ATV trails.*

- Township property needs bike trails to help bring money to Big Bay.
- More recreational ORV trails.
- There needs to be an ATV trail established from Marquette to Big Bay.

Medical/ Recreational Marijuana

- Let Powell Township benefit from the tax money and fees of having a dispensary! Not the pot heads.
- Why not enjoy the taxes to Powell Township that a controlled dispensary would provide.
- The people voted marijuana in. Listen to the voters don't miss out on the money the dispensaries could bring in for the Township. Lead from the front.

Power

- Surrounded by hills in Powell Township we should invest in wind energy.

Sanitation

- Keep friendly face at the dump.

Recreation

- Support younger people with activities that will draw them to the area. Making it more fun for young people could allow for people wanting to move here and support the economy.
- Lake Independence is a unique draw here. Let's work on fish structure/ planting to create a draw for sportsman around the U.P.
- Support for activities is essential. We are a small community and need to keep our community thriving.
- Good job on grants for Parks and Recreation.
- We should have a community ice skating area on Lake Independence. We should also stock fish into the lake to increase our fishing industry. Open a pumpkin patch, corn field, cider mill, sunflower farm, boat cleaning station, ice cream shop, new tavern, have a community fire during the ice fishing derby, hold a music and arts festival, have a sledding hill, create a beautification committee, create a waterfall map, have bball, cornhole, and horseshoe tournaments on Fire on the Bay.
- More concerts.
- Concerts are great! Keep up support!
- Boat slips at marina.
- Fishing charters.

Regulations, Ordinances and Laws

- Regulations and laws need to be enforced. Why have zero dogs allowed if they are allowed?
- There should be a survey taken on how the Township is doing on all these items rather than the order of importance. We have all the rules and ordinances but no one enforces them. The Township Board and the Planning Commission are very lax when it comes to enforcing ordinances especially blight.
- Blight- halfway area. Have people get rid of their junk- cars that don't run trash and garbage in

yards.

- Common sense ordinances.
- What is blight? Could be a description of the properties in Big Bay that are full of junk? Yards that need to be cleaned up?
- I wish there was a better way to rid the Township of blight. Cars, buildings, junk. Enforcement is a slow, slow process.
- Better management of Township meeting and Planning Commission meeting. Possible increase of Township hours. Hiring of a Township constable.
- Have a rabbit hunt and donate the funds to the shelter.
- Do something about the bunnies- health hazard.
- Board could have more interest in the Departments.

Advertising/Marketing

- No more with Marquette County advertising to let people know we're here.

Roads

- Why isn't there a white 45 mph sign in the halfway area? Who can see that little yellow sign?
- I commend the Township for the fine job they have done working with the MCRC to keep Lighthouse Road in such good condition. I have lived on Lighthouse Road for 35 years now and it is in the best shape it has ever been. Please do not pave it, chip or seal it or any other improvement that would be a waste of resources and taxpayer money.
- Do not pave Lighthouse Road. It is in good shape. Paving it would change the whole character of the area from rural to just another rural subdivision.

In conclusion, the 2019 survey provides elected and appointed Powell Township officials with updated responses to various issues and opportunities as it relates to the provision of local services. This information is invaluable as Powell Township future planning occurs. These survey results will be used in a later chapter to establish goals and objectives in order to move the community forward.

9.3 Master Plan Update Open House/Public Input Session (2019)

A Master Plan Update Open House/Public Input Session was held at the Powell Township Hall on the evening of Wednesday, October 16, 2019. It is estimated that about thirty local residents and business owners attended the meeting. Those in attendance were invited to place comment notes on maps and discuss any existing issues or opportunities facing the community. Northwoods Planning & Zoning Services, LLC and Powell Township Planning Commissioners were in attendance to provide background on the master planning process, answer questions, and discuss participant input. The following is a list of verbal comments compiled the general discussion with those that participated regarding specific topics:

Short Term Rentals

- There are six short term rental properties near Squaw Beach which is a residential area. They are now grandfathered in. People who own short term rentals are not required to pay the same taxes as hotels.
- Short term rentals are needed to allow tourists a place to stay.

- *There needs to be a balance of short and long term rentals so people can visit and live.*
- *If individuals are not using a site like VRBO or AirBnB for their short term rentals and saying they have friend's over- how will future regulation apply to them.*

Zoning Districts

- *There are many RR-5 properties that should not be RR-5. We need more residential development.*
- *Logging companies are selling properties zoned at TP-40. This type of property is not able to be a permanent residence.*

Parks

- *Citizens would like upgraded park equipment.*
- *Citizens would like to see which grants could cover updates to Perkins Park.*
- *Our Park Thomas Rock and surrounding area are beautiful!*

Trails

- *Citizens would like to see more ATV trails. DNR permits can be requested by a Township official if approved by the Township Board.*
- *Some trails only have easements for snowmobiles during the winter months. Citizens would like these trails to be accessible year round with any motorized vehicle or on foot.*

Medical/ Recreational Marijuana

- *Allow the sale of medical and recreational marijuana and tax it.*
- *Keep options open for future discussion.*

Green Burials

- *Interest in learning more about green burials.*

Internet

- *The internet has improved but could use continued improvement. A study could be done to see where the internet could be strengthened.*

Natural Gas

- *Natural gas would have to be run a long way. For now propane is an affordable option. Multiple propane companies serve residents.*

Power

- *The power goes out less often and the grid is much more resilient.*

School

- *The school is great. Free meals, new computers.*

Businesses

- *There are times it can be hard to find a place to go out and eat.*

9.4 Issues & Opportunities

The awareness and involvement of local stakeholders in the Master Planning process is critical to the successful, continued provision of Powell Township services and programming. When the public is engaged in the process, their feedback ensures future planning projects address community needs. Likewise, the public gains a better understanding of the tradeoffs and economic constraints associated with short and long-range planning endeavors.

The Powell Township Planning Commission has provided ample opportunities for the public to have direct involvement in future of the community. As stated previously, this information is invaluable to local officials.

DRAFT

10.0 FUTURE LAND USE & ZONING PLAN

10.1 Introduction

Previous chapters of this Master Plan update provided an overview of the existing conditions in Powell Township. This chapter discusses an adjusted future land use plan that is representative of the current, preferred scale and type of development pattern, moving forward. Future land use planning sets the desired scale and locations of various land uses including: residential, commercial, industrial, public facilities, open space, and recreational areas throughout the Township.

Local governments are endowed with the definitive authority for guiding land use through zoning laws as well as, building and sanitation codes. These various regulations establish parameters within which development can occur. Zoning regulations must be based on a plan developed with public input. It is important that future land use decisions be realistic in light of the ability of local governments to provide essential public services in a fiscally responsible manner. When making future land use decisions, township officials should carefully review adjacent land uses in bordering jurisdictions for compatibility.

The Michigan Planning Enabling Act (PA 33 of 2008) requires a Master Plan to include "... a Zoning Plan for various Zoning Districts controlling the height, area, bulk, location, and use of buildings and premises. The Zoning Plan shall include an explanation of how the land use categories on the Future Land Use map relate to Districts on the Zoning Map." (Section 33(2)(d)).

This chapter also contains information about Powell Township's current zoning districts and provides recommendations for potential modifications to the districts based on the future land use plan. Map 11.1 shows the current zoning districts, and Map 11.2 shows the future land use categories.

10.2 Future Land Use Descriptions

The following descriptions provide an outline of the vision and intent for future land use in Powell Township. The future land use descriptions are based on the goals and objectives established by the Powell Township Planning Commission, as well as best management practices with regard to land use planning. Public input collected during the Master Plan update is also a pivotal part in developing this chapter.

Each future land use category description includes an accompanying photo. These images were selected from various rural locations in the United States, and are used to illustrate the intended use and general character of each land use designation. The examples are not intended to dictate any particular architectural style, building standard or arrangement, or to limit the uses of a land use designation to those depicted.



RESIDENTIAL DEVELOPMENT

New residential development should be encouraged in areas that have adequate infrastructure in place or that can be readily and economically provided. Care should be taken in choosing building sites where septic systems will function properly, as the Township has some soil types with limitations. The existing zoning districts should generally be sufficient to accommodate any new residential development. This image shows modern, high-density residential development that may be conducive in a recreational community.



RURAL RESIDENTIAL

Rural residential development in the outlying portions of the Township should occur in a way that preserves open space and the rural character of the Township. It should also provide adequate space for private wells and septic systems (Marquette County Health Department minimum for locating a well and septic drain field system on a parcel is one (1) acre). The existing zoning districts are generally sufficient to accommodate new, rural residential development. The adjacent photo shows a modern farm style home in a rural setting.



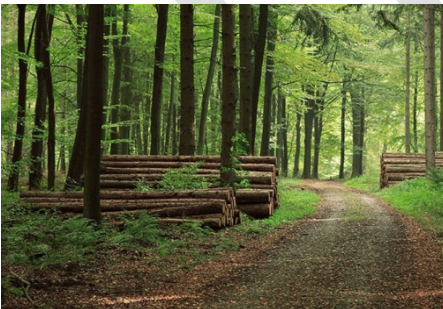
WATERFRONT DEVELOPMENT

Waterfront development can be residential and/or commercial, and provides for the ability to mix used that create a vibrant location. The Unique visual and environmental characteristics should be considered when allowing for waterfront development. The existing zoning districts should generally be sufficient to accommodate any new waterfront development. The related image shows a “working waterfront” development which features a mix of commercial, residential, and recreational land uses.



AGRICULTURAL PRODUCTION

Portions of Powell Township have adequate soils for growing food crops and raising livestock. The expansion of small-scale agricultural activities was expressed during the update of this Master Plan. The existing zoning districts should generally be sufficient to accommodate any new agricultural production. The image to the left shows small-scale agriculture in a rural setting.



TIMBER & OTHER RESOURCE PRODUCTION

Much of Powell Township's land area is well-suited for logging and mineral extraction due to rural character, soil types, potential mineral content, and location. The existing zoning districts should generally be sufficient to accommodate timber and mineral extraction, provided their removal does not adversely impact the health, safety, and welfare of adjacent residents and/or less-intensive land uses. The adjacent photo shows a rural logging operation.



TOWN DEVELOPMENT

Larger, more concentrated populations in the unincorporated community of Big Bay may necessitate higher density residential and commercial development than other future land use categories. However, this development should be compatible with a small town setting. The existing zoning districts should generally be sufficient to accommodate any new development in this category and new techniques in planning streetscapes may assist in attracting new residents and creating a “sense of place.” The image to the left denotes a reimagined, rural, and walkable street scene.



INDUSTRIAL

Besides the transfer station, Powell Township does not currently have additional industrially-zoned areas. Allowing for industrial or light manufacturing, isolated from residential uses, could encourage new business development and strengthen the area's economy. The photo to the left shows a small-scale light manufacturing business in a rural setting.

10.3 Zoning Districts & Zoning Plan

Powell Township is currently divided into 15 zoning districts. Map 10.1 shows the zoning districts, and the following text describes the intent and general purpose for each district. The permitted and conditional uses within each district and schedule of district regulations are included in the Powell Township Zoning Ordinance. A review of the current districts is pertinent to the discussion of any Zoning Ordinance revisions efforts as well as future land use.

Current Zoning Districts

District R: Residential

The R, Residential, District is intended for the establishment and preservation of quiet neighborhoods for single-family dwellings and two-family dwellings free from other uses except those which are both compatible with and convenient to the residents in this District. The R District is designed to accommodate residential opportunities for those who are willing to assume the costs of providing their own services, requiring spacious lots, insuring a safe, potable water supply and treatment of waste water on the same lot. Minimum lot size is 22,500 sq. ft.

District R-1: Residential

The R-1, Residential, District is similar to R: Residential, but with a minimum lot size of 1 acre.

District R-2: Residential

The R-2, Residential, District is similar to R: Residential, but with a minimum lot size of 2 acres.

District RR-5: Rural Residential

The RR-5, Rural Residential, District is established to provide for a transition zone between more densely settled residential areas and the more sparsely developed rural, agricultural, or forested areas of the Township. Such areas are accessible and provide for a mix of moderately intensive, compatible uses from surrounding zones. Minimum lot size is 5 acres.

District LS/R: Lake Shore and River

The LS/R, Lake Shore and River, District is established to preserve for residential and recreational uses those areas with frontage on lakes and rivers which, because of existing development, natural characteristics and accessibility, are suitable for development. Minimum lot size is 22,500 sq. ft.

District LS/R-2: Lake Shore and River

The LS/R-2, Lake Shore and River, District is similar to LS/R: Lake Shore and River, but with a minimum lot size of 2 acres.

District RS-10: Recreational Structures

The RS-10, Recreational Structures, District, is established and maintained for recreational and residential uses. The District is designed for areas with frontage on lakes and rivers, which because of their natural characteristics, accessibility, and high cost of providing public services, are suited for less intensive development than the LS/R District and intended for recreational or seasonal development. Governmental services may not be provided on a year-round basis or may not be provided at all. Minimum lot size is 10 acres.

District MH: Mobile Home Residential District

The MH, Mobile Home Residential, District is designed and intended to accomplish the objectives of the zoning ordinance through planned development for a mobile home park. Site planning and careful land use will allow appropriate development that is in keeping with the rural nature of the township.

District PUD: Planned Unit Development

The PUD, Planned Unit Development, District is designed and intended to accomplish the objectives of the zoning ordinance through a land development project review process based on the application of site planning criteria to achieve integration of the proposed land development project with the characteristics of the project area. A planned unit development may be located anywhere in the Township upon its approval by the Powell Township Planning Commission following an extensive site plan review.

District AP-20: Agricultural Production

The AP-20, Agricultural Production, District is intended to preserve for productivity and protect from other incompatible uses the lands which have suitable soil characteristics for the growing of crops and animals beneficial to man and to allow forestry and mineral extraction where such resources exist and their removal will not interfere with the overall operation and productivity of adjoining agricultural land uses. Minimum lot size is 20 acres.

District RP-10: Resource Production Ten

The RP-10, Resource Production Ten, District is established to maintain low density rural areas which because of their rural character and location, potential mineral content, accessibility, natural characteristics and the potentially high cost of providing public services for intensive uses are more suitable for a wide range of forestry, agriculture, natural resource and recreational uses. Some of the characteristics necessary for the RP-10 District are having electrical service and being located on a county road serviced year-round. Minimum lot size is 10 acres.

District RP-20: Resource Production Twenty

The RP-20, Resource Production Twenty, District, is established to maintain very low density rural areas which because of their location, potential mineral content, accessibility, natural characteristics and high cost of providing public services are not suitable for year-round development but rather for a wide range of forestry, agriculture, mineral extraction, natural resource and recreational uses. Governmental services may not be provided on a year-round basis or may not be provided at all. Minimum lot size is 20 acres.

District TP-40: Timber Production

The TP-40, Timber Production, District is established to preserve and maintain for timber production purposes those lands which because of their soil, drainage, large tract ownership, potential mineral content, and other

characteristics, are especially suited for timber productions and mining. Minimum lot size is 40 acres.

District TD: Town Development

The TD, Town Development, District is established to preserve a district for residential, retail and service establishments, and certain governmental uses that are compatible with a small town setting serving residents and tourists. This district is designed for small unincorporated town areas where a mix of residential and retail is in accord with established patterns of land use and the needs of nearby residents. Minimum lot size is 3800 sq. ft.

District I: Industrial

The I, Industrial, District is designed and intended for manufacturing, assembling, fabricating, and processing businesses, storage, mineral extraction, and other commercial activities which may require larger sites and isolation from many kinds of other land uses and to make provisions for commercial uses necessary to service the immediate needs of an industrial area. Minimum lot size is 1 acre.

Relationship Between Zoning and Future Land Use

The following table lists future land use categories and their corresponding existing zoning districts, along with notes when applicable. Currently, the existing zoning districts align with the goals and recommendations discussed in previous chapters. However, if the needs of Powell Township change in the future, amendments to the zoning map and districts may be necessary.

Table 11.1: FUTURE LAND USE CLASSIFICATION AND ASSOCIATED ZONING DISTRICTS		
Future Land Use Category	Zoning District	Notes
Residential (R)	R, R-1, R-2	-
Rural Residential (RR)	RR-5	-
Waterfront (W)	LS/R, LS/R-5, RS-10	-
Agricultural Production (A)	AP-20	-
Timber and Other Resource Production (T)	TP-40, RP-10, RP-20	-
Town Development (TD)	TD	-
Industrial (I)	I	"Industrial" classification described in zoning ordinance, but not in current zoning map.
-	MH	"Mobile Home" residential district described in zoning ordinance, but not in current zoning map.
-	PUD	Planned Unit Developments are provided for by the zoning ordinance per site plan review.

"Industrial" classification described in zoning ordinance and zoning map.

10.4 Issues & Opportunities

Planning is intended to guide change and growth in ways that encourage desirable outcomes by reaching an appropriate balance between development and preservation. The Master Plan should be reviewed annually for consistency. The plan should be amended as necessary so that it remains as a reliable planning tool. State law requires that the Master Plan be reviewed every five years to determine if updating is necessary.

As a result of this Master Plan update and Future Land Use Map update, a small section of *Town Development* was added to the West of Schenk Street in between Co Hwy KT and Co Rd KG. This change makes the land use category more symmetrical in the area. It may avail additional support services or entertainment-type land uses to compliment the growing recreational opportunities in Powell Township.

The other amendment to the Future Land Use Map resulted in converting some *Rural Residential* parcels (5 acre minimum) to *Residential* parcel (1-2 acre minimum) in the Halfway area. This was done to accommodate smaller residential lots in the area, if property owners desired to rezone them in the future. This would allow for additional density in the Halfway area, while still allowing for well and septic systems to be utilized.

As the developers and most frequent users of this document, the Planning Commission will be responsible for reviewing the objectives and progress of the Plan. Revisiting the Future Land Use & Zoning Plan should occur when:

- Every five (5) years when the Master Plan is updated.
- When goals and objectives have been accomplished and need updating.
- To reflect upon any zoning decisions which have changed the scope of development in Powell Township.
- When public input and/or community survey results warrant changes to the plan.
- When new industries that may be viable are introduced into the market.
- When zoning compliance requests are unable to be approved due to non-compliance with the zoning ordinance.

11.0 PLAN IMPLEMENTATION & ADOPTION

11.1 Introduction

Powell Township aims to carry out the goals and objectives of this Master Plan. The Township Board, Planning Commission and staff will monitor the outcomes of the plan and will propose changes as they are needed and/or warranted. This Master Plan is not a permanent document; it may be amended over time as the site and situation in Powell Township continues to evolve. In order for the Master Plan to be relevant to the community, it must remain current.

11.2 Plan Review

As required by the [Michigan Planning Enabling Act, P.A. 33 of 2008](#), the draft plan was distributed to neighboring municipalities, county and utilities on _____, 2021 with instructions for review and comment. A list of the entities receiving the draft plan is attached at the end of this chapter. Comments were also received from the Marquette County Planning Commission and can be found in this chapter.

11.3 Public Hearing & Adoption

The Public Hearing notice for adoption was published in the Mining Journal on _____ 2021, in accordance with the Michigan Planning Enabling Act. The Township Planning Commission held the required Public Hearing on _____, 2021. Following the Public Hearing, the Planning Commission adopted the *Powell Township Master Plan | 2021-2025* by resolution on _____, 2021; a copy of the resolution can be found later in this chapter. The Powell Township Board of Trustees passed a Resolution of Concurrence at their meeting on _____, 2021; a copy of that resolution can also be found within this chapter.

11.4 Distribution of the Plan

Following adoption, the final plan was distributed to neighboring communities, county and utilities in the same manner as the draft plan. A list of those receiving the final plan is below.

- Marquette County
- Marquette Charter Township
- Champion Township
- Ishpeming Township
- Arvon Township
- Michigamme Township
- Alger-Delta Electrical Cooperative Association
- AT&T Michigan