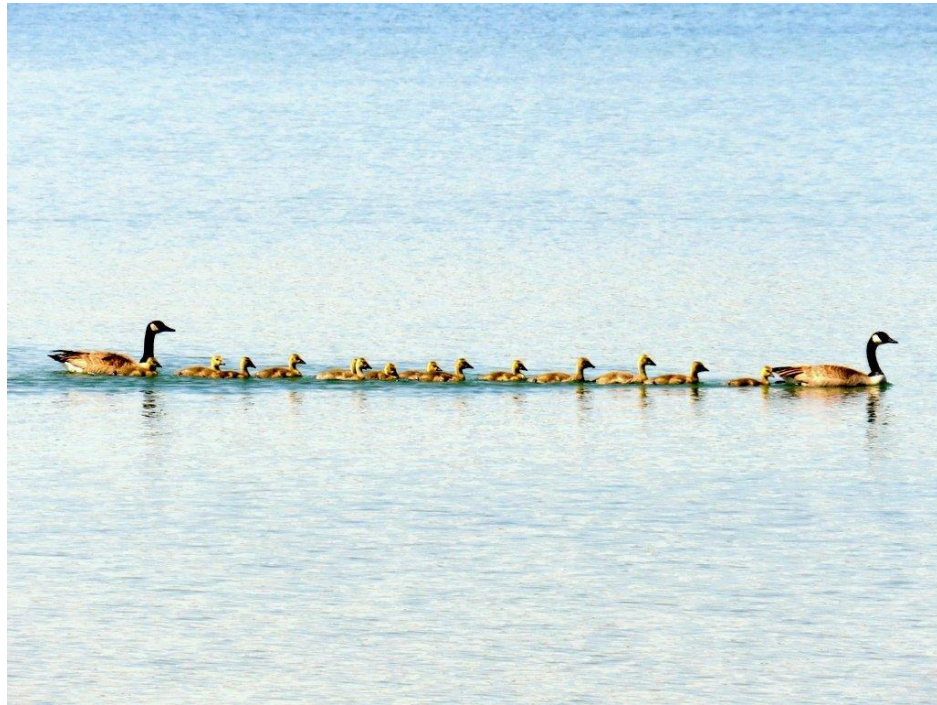




Sugar Island Township Master Plan

June 2018

**This Plan was a cooperative effort by the
Sugar Island Township Planning and Zoning Commission,
Sugar Island Residents and
EUP Regional Planning & Development Commission.**



"Please don't come to the Upper Peninsula and try to alter the land or our way of life. Don't set about to change this place into the place you have just left (or fled). It is what it is and we like it that way. Rather approach our beloved north country with reverence and awe. Tuck yourself in here and let the land change you "

Author - Lon L. Emerick

(This picture, Sugar Island resident personal collection, and saying by, Lon L. Emerick, are the property of the Sugar Island Township Master Plan and cannot be reproduced without written permission of Township Board) June 2018

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Enabling Legislation

Michigan Planning Enabling Act 33 of 2008

This Act provides for township planning, for the creation, organization, powers and duties of the township planning commission; and for the regulation and subdivision of land. The following is a citation of Section 7 Number 125.3807 Master Plan adoption, amendment, and implementation by local government (Act 33 of 2008 125.3805).

Sec. 7.

- (1) A local unit of government may adopt, amend, and implement a master plan as provided in this act.
- (2) The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:
 - (a) Is coordinated, adjusted, harmonious, efficient, and economical.
 - (b) Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.
 - (c) Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.
 - (d) Includes, among other things, promotion of or adequate provision for 1 or more of the following:
 - (i) A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians, and other legal users.
 - (ii) Safety from fire and other dangers.
 - (iii) Light and air.
 - (iv) Healthful and convenient distribution of population.
 - (v) Good civic design and arrangement and wise and efficient expenditure of public funds.
 - (vi) Public utilities such as sewage disposal and water supply and other public improvements.
 - (vii) Recreation.
 - (viii) The use of resources in accordance with their character and adaptability.

History: 2008, Act 33, Eff. Sept. 1, 2008 ;-- Am. 2010, Act 134, Imd. Eff. Aug. 2, 2010
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Section 1: Introduction

Land use planning deals with the inter-relationship of two basic resources, land and people. The land is a fixed, irreplaceable, non-expandable resource; population is an expanding and mobile resource.

Man's relationship to the land is one of both dependence and dominance. Man depends upon land and his surrounding environment for all the necessities of life. At the same time, society has developed the ability to dominate and utilize the land. Land use planning is an attempt to establish and maintain a balance between the use and preservation of the land resources to provide a satisfying life for present and future generations.

Life styles and social values rapidly and constantly change in our culture. Individually and as a society we need to anticipate changes and to develop an effective method to deal with these changes when they occur. Planning can help identify the issues which are important to the current and future generations.

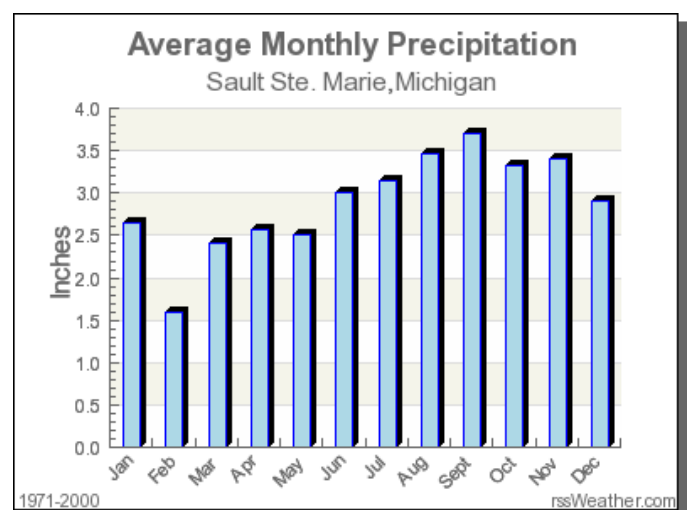
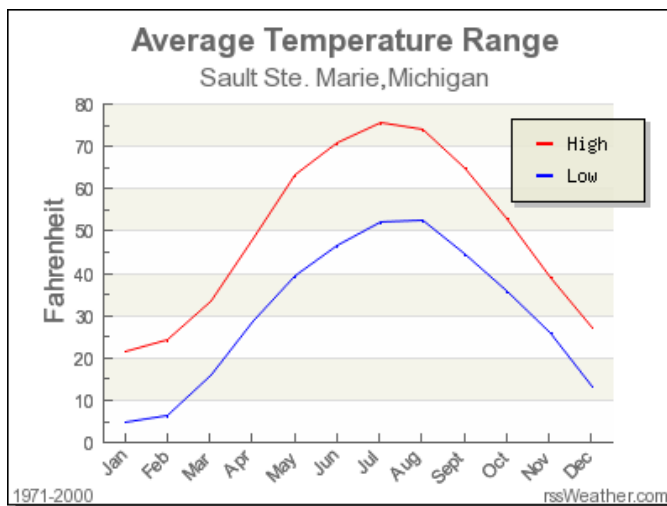
Land use planning will help establish land resource capability and suitability within Sugar Island Township. This Plan will be used as the basis for revising the existing zoning ordinances. Maps will include location, future land use, general land use, hydro-geologic soils, slope determination, transportation routes, and structures by use (including housing, commercial and other dwellings which exist).

Section 2: Overview of the Township

General Information

The St. Mary's River separates the Township from the Chippewa County mainland. The international boundary between the United States and Canada runs along the northern and eastern sides of the Township. Privately-owned boats and an auto ferry operated by the Eastern Upper Peninsula Transportation Authority, provide transportation from the Island to the Michigan mainland.

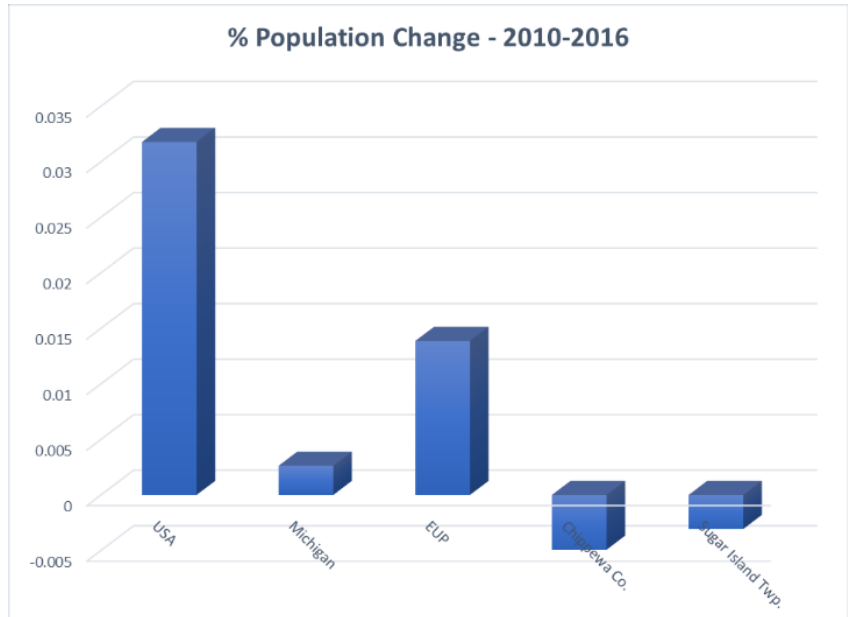
Sugar Island Township (hereinafter referred to as the "Township") is in the eastern Upper Peninsula of Michigan in the northeast corner of Chippewa County. Average temperatures for January range from a high of 25 degrees Fahrenheit to a low of 10 degrees Fahrenheit. In July the normal high temperature is around 75 degrees Fahrenheit, and the normal low is typically 50-55 degrees Fahrenheit. Annual seasonal snowfall is approximately 120.4 inches, with December and January realizing the greatest amount of accumulation. Average monthly precipitation is 2.89 inches. (Data taken from the National Weather Service Office for Sault Ste. Marie), with the wettest months being August, September and October.



Population Data

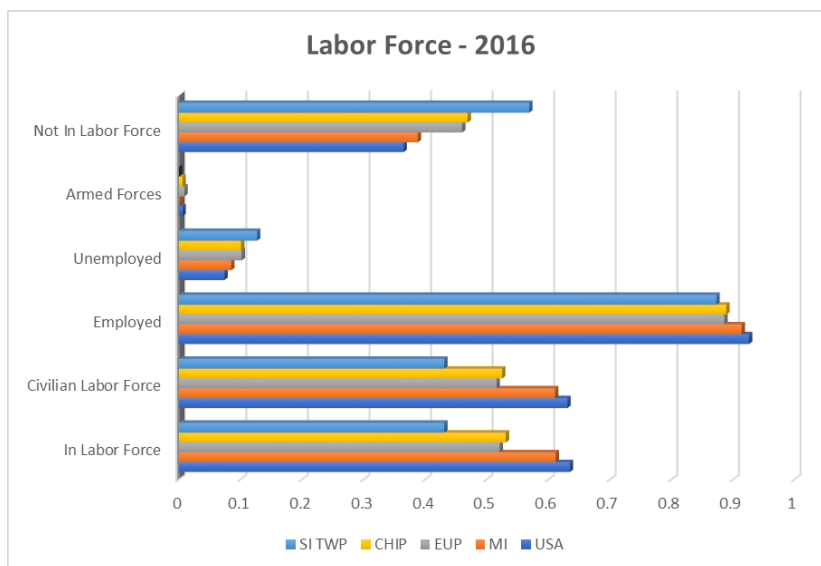
According to the US Census Bureau's American Community Survey data in 2016, Sugar Island Township had a population of 650. There are 322 males and 328 females living in the Township, with the majority (nearly 33.5 percent) between the ages of 45 and 64 years.

Residents between birth and 19 years make up approximately 18.3 percent of the population, 29.5 percent are over 65 years old, 3.4 percent are between 25 and 44 years old, and 3.4 percent are between 20 and 24 years old. In 2016, 93 percent of residents claim one race (453 are white, 131 are American Indian/Alaska Native), 19 people were Asian, while two are Native Hawaiian/Pacific Islander, and 45 people being of two or more races. (U.S. Census Data, 2010) (See Chart 1)



Income/Economic Data

The median household income for the Township is \$46,528 annually. This is higher than county figure of \$42,428 and considerably lower than the State figure of \$50,803, and even lower than the national median household income in 2016, which registered at \$55,322. Just over



34 percent of households show an annual household income of between \$50,000 and \$99,999; 28.5 percent between \$25,000 and \$49,999; 26 percent at less than \$24,999, and 11.2 percent at greater than \$100,000. (See U.S. Census Data Comparisons, Chart 1). A majority of Township residents work on the Michigan mainland and commute by ferry daily.

Just over 21 percent of Township residents of working age (16 years and older) are employed in education services and health care and social services; 15 percent in public administration; 14.6 percent in retail trade; 8.9 percent in Professional Services; and 8.5 percent in construction jobs. Other employment industries are detailed in Chart 1. According to the 2016 ACS, 78.4 percent of the Townships residents travel to work by car/truck or van – alone, 10.1 percent carpooled via car/truck or van, 5.8 percent traveled via other means and 4.8 percent worked from home.

For students attending Sault Area School, the Sault Area School bus transports 38-42 school-aged children to schools located on the mainland, twice daily M-F morning and afternoon, returning to the Township (Sault Area Public Schools information, June 2018). The 8-14 Township children, who attend the Joseph K. Lumsden Bahweting PSA school are returned to the Township by bus in the afternoon after school is dismissed. There are currently no home-schooled children registered with the EUP Intermediate Schools (EUP ISD, 2018).



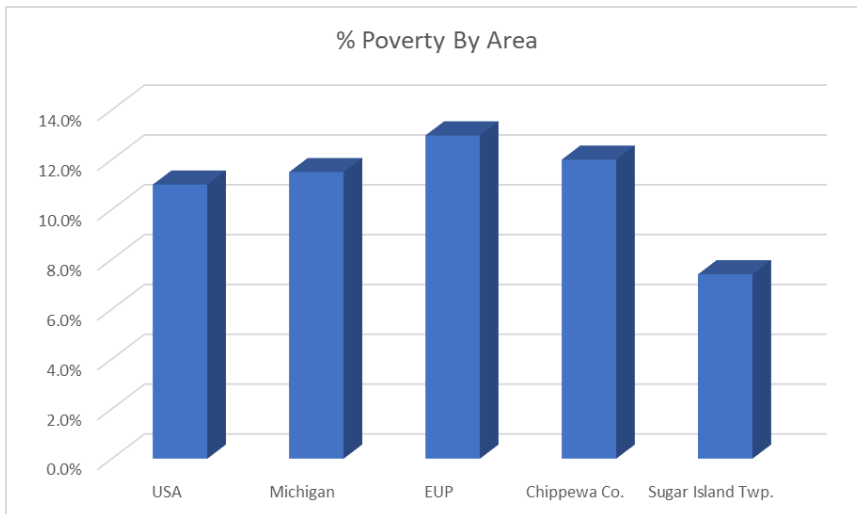
In 2016, 93.8 percent of workers aged 16 and over worked in the State of Michigan; 89.9 worked in Chippewa County; 3.8 worked outside of Chippewa County; and 6.3 percent worked outside of the State of Michigan. When compared to 2010 ACS data, all these categories showed a marked decline, excluding those who worked outside of Chippewa County, which saw an increase of 100 percent.

The Civilian Noninstitutionalized population in the Township with a disability was

recorded at 17.7 percent in 2016; of this population 7.8 percent had a hearing difficulty; 1.4 had a vision difficulty; 5.1 percent possessed a cognitive difficulty; 8.9 percent had an ambulatory difficulty and 3.3 percent had a self-care difficulty.

Social Data

According to the ACS 2016 data, there were 7.4 percent of the Township's population living in Poverty, a decrease of 3.2% from 2010. 90.8 percent of the Township's residents have health insurance coverage, 72.6 from a private entity, 47.7 percent from a public program and 9.2 percent with no coverage. Employed individuals aged 18 to 64 were found to have health



insurance 57.3 percent of the time; whereas only 5.3 percent of the unemployed population possessed health insurance.

The population of veteran's living in the Township dropped off significantly since 2010, with a decline of 53 percent. Despite this decrease, veteran's account for 14.5 percent of the Township's civilian

population aged 18 years and over.

Tourism and Recreation

While the Township's forest and waterways offer a home to the great variety of animals it also provides great recreation for island residents. Sugar Island has long been noted for its fishing, hiking, snowmobiling and viewing nature's presence.

The island is dotted with public parks and boat launches. The Township park, located on Northwest shore has playground equipment, a beach and softball fields. The park can be utilized as a launch for kayaks, canoes and paddle boards. The DNR boat launch, located on the Northeast shore road, has a boat ramp and a parking area. Eight Mile road is home to Simwaba Nature Trail. This path, to the shore, is on the main shipping channel. A sandy beach awaits anyone willing to walk the trail. There you can bask in the sun and watch the boats. The Sugar Island Music Festival, which happens yearly in August, helps to fund this nature trail.

On the south end of the island is the Osborne Preserve, also known as Duck Lake. It is owned by the University of Michigan and it does not have any facilities for public use. But it does allow public access to thousands of acres of hiking and fishing. The fishing in Duck Lake can be accessed on the Lake George side. There is a walking path and then a boardwalk from Sugar Island side allowing easy access to Duck Island. There are buildings of historical significance on the Preserve. Visitors need to sign in at the entrance area and it is expected that they will respect the area available for their enjoyment. The Osborn Preserve is attached to private lands that the public, should not respectfully access. Informational signage is posted at the Duck Lake entrance stating the rules of accessing this privately-owned property.

There are also many acres owned by the Little Traverse Conservancy, which are open to the public for hiking. They are adjacent to private properties. The mission of the Little Traverse Conservancy is to protect the natural diversity and beauty of northern Michigan by preserving significant land, scenic areas, and fostering appreciation and understanding of the environment. The service area includes Chippewa, Mackinac, Emmet, Cheboygan, and Charlevoix counties. The web site, <https://landtrust.org/preserve> , has information concerning use and location of these sites available to the public.

Guidelines for Use of Conservancy Nature Preserves

The Conservancy works hard to balance the public uses offered on our preserves with protection of their natural integrity and scenic beauty for future generations. Recreational, educational, and scientific use of the preserves is encouraged, if it does not interfere with our primary goals of preservation and protection. We welcome you to explore and enjoy our beautiful preserves, keeping in mind that you are a temporary visitor to the homes of many plants and animals.

Please enjoy: Hiking, bicycling, birdwatching, cross-country skiing, snowshoeing, fishing, and similar low-impact, non-motorized activities.

Please refrain from: Snowmobiling, camping, fires, dumping or littering, removal of vegetation, off-road vehicles.

Please remember:

Hunting is allowed only on designated preserves and with written permission only. Contact the Conservancy office at 231 347 0991 for more information or to receive a permission form.

Please note that you must print a copy of the form and have the signed form with you while hunting. Please observe the rules for hunting on a nature preserve. Below is a link to the online hunting form: <https://landtrust.org/preserve-hunting/> Web site to obtain Little Traverse Conservancy On-Line Hunting permit and rules for hunting on a nature preserve.

History of the Township

Sugar Island's first residents are considered descendants of the Anishinaabeg peoples, who hunted, fished and settled in the upper Great Lakes, St. Mary's River system and Straits of Mackinac. They gathered for the summers in places like *Bahweting* (Sault Ste. Marie) then breaking into family groups for the winter. The Anishinaabeg tribe settled on Sugar Island known to them as *Sisibakwato Miniss* or Sugartree Island. This name referred to the marvelous Sugar Island maple trees that were a source for the sugar bush maple syrup made in the spring. The tribes lived this way for hundreds of years until the arrival of European settlers in the 1600s (saulttribe.com, 2017). The Anishinaabeg had dealings with first the French, then the English, then the United States. These tribes, settled in the area near the rapids of the St. Mary's River around the 14th century (Arbic, 2003).

Originally the Anishinaabeg were considered one tribal band, the Bay Mills tribe. But the native leaders living in the Sault Ste. Marie, St. Mary's and Sugar Island lands, did not consider themselves a part of the Bay Mills Indian Community. They pushed for recognition as a separate tribe. In the 1940's the Sugar Island tribal residents met to discuss the future of their tribe. They developed a plan of action to become their own Chippewa band. On Dec. 24, 1953, they became the "Original Bands of Chippewa Indians and Their Heirs." This struggle took another 20 years to complete. The descendants built their case by searching archives, gathering historical documents, culling census rolls, church and military records. In the mid-1960s, the group included members from six historical Ojibwe bands: Sugar Island, Sault Ste. Marie, Drummond Island, Garden River, Grand Island and Point Iroquois (saulttribe.com, 2017).

In the early 1970s, the leaders of the Original Bands of Chippewa Indians traveled to Washington and successfully submitted their historical findings and legal argument to the Secretary of the Interior, who granted the tribe federal status in 1972. Once recognized, the Original Bands became the Sault Ste. Marie Tribe of Chippewa Indians. Land was taken into trust in March 1974 and Sault Tribe members adopted the tribe's Constitution in fall 1975.

Today, Sault Ste. Marie Tribe of Chippewa Indians are 44,000 strong. While the tribe headquarters is in Sault Ste. Marie, Mich., its economic impact extends for hundreds of miles. The tribe has landholdings, businesses, housing and other service centers throughout Michigan's Upper Peninsula. The tribe's seven-county service area is made up of the easternmost seven counties of Michigan's eastern Upper Peninsula—roughly the area east of Marquette to Escanaba. Sugar Island is one of two areas in the Unit 1 service area of the Sault Tribe 5 Unit designated areas.

The Sault Ste. Marie Tribe does not have a reservation on Sugar Island but does own several large tracts of land. One of these is the Mary Murray Culture Camp located on Brassar Road. This was the vision of a Sault Ste. Marie Tribe of Chippewa Indians tribal elder, the late

Mary Murray. Mary was born and raised on Sugar Island. She saw the need for “a place where little brown faces can learn about who they are as Indian children and where they can learn about their culture to become proud of their native heritage,” (saulttribe.com/history, 2017). In 1975, Mary Murray, donated the 40 acres on Sugar Island for a camp with the stipulation that it be used to provide a place to maintain and preserve the tribe’s traditional way of life. The Mary Murray Cultural Camp provides cultural activities, education and retreats for the Sault Tribe members. The culture camp has hosted many ceremonies and gatherings such as feasts, sweat lodges, elder gatherings, nature trail tours and pow wow accommodations. Another tribal meeting, held on the island, is the yearly summer traditional pow wow.

The Bay Mills Tribe of Chippewa Indians does have reservation land on Sugar Island, located along Homestead Road between 7 and 8 Mile Roads including the Willwalk Cemetery. It is estimated that in a little over two hundred years, after the Native Americans settled on Sugar Island, French missionaries and explorers came into these lands. In 1668, the Jesuit Father Jacques Marquette established a permanent mission in Sainte Marie du Sault, now known as Sault Sainte Marie, Michigan. This was one of the three Jesuit Missions in the Lake Superior region at that time. But, three centuries would go by before Sugar Island would become part of the United States. According to Bernard Arbic, author of the Sugar Island Sampler (1992), the 1783 Treaty of Paris, allowed for Sugar Island to be in United States (U.S.) waters because of where it lay in the navigable channel between the U. S. and Canada, placing Sugar Island within the U.S. Territory, (Arbic, 1992). This debate continued, even with the treaty, until 1842 when the Webster-Ashburton Treaty settled the ownership of Sugar Island as U.S.

Sugar Island was the second Township to be formed in Chippewa County, October 12, 1857 (Arbic 1992). In 1882 the dredging out of the Hay Lake Channel on the Western side of Sugar Island enabled larger boats to navigate the St. Mary’s river. Use of this western channel rather than the Lake George channel shortened the route to the lock by 11 miles. With the opening of the Hay Lake Channel, allowing larger boats access to transport goods to and from this area, an economic boom occurred for Sugar Islanders. Using this improved water way, the Township exported hay, maple sugar, lumber, and other materials from the island (Arbic, 1992). In 1855 with the completion of the Soo Locks, water transportation up and down Lake Superior was greatly improved. This allowed the Sugar Island Township residents to transport commodities from Township farms and businesses to Sault Ste. Marie, Ontario Canadian Garden River Tribe, Sault Sainte Marie, Michigan mainland, the Western Upper Peninsula and Southern Michigan’s larger ports and cities. These goods were loaded onto boats from docks located at the north-eastern shore of the Township.

Until July 1, 1928 transportation to and from Sugar Island was by boat or canoe, for individuals or larger parties of persons, in need of going to or coming from the Township. Moving equipment and machinery for farming also utilized boats, landing at the several docks on

the island. But that was soon to change, as on this date the Sugar Island Ferry began service to the islanders. The first of many ferries, was named "SERVICE", running to and from Sugar Island whenever a call came from 7am to 10pm. The cost of a one-way ride was 45 cents for automobiles, 75 cents for heavier trucks and 15 cents for foot passengers. Today's Sugar Islander II runs routinely every 30 minutes 24 hours/day (with the exception of 3a-4a and 4a-5a). One current eighty-five-year-old islander related an interesting story about coming to Sugar Island, at age 5, with her family and the Ferry. The family had gotten off the ferry, after a long road trip from lower Michigan, when their Model T Ford had a break down. They had to spend the night at the ferry dock to wait for a repair person to come across in the morning. The road was a basic two-track. As she and her brother huddled in the back seat, the howling of wolves could be heard, making sleep hard to come by, but making an enduring memory to this Sugar Island elder.

A person of interest with Sugar Island involvement, was Bishop Frederic Baraga, a Roman Catholic priest. He came to the area of Sugar Island in the mid-1800's. He had been given the job of building a mission church on Sugar Island with the help of the local Native Americans living in the settlement of Payment, on the north-eastern portion of the Island. Bishop Baraga had a great interest in learning the Chippewa language and is credited with composing a Chippewa language grammar book and dictionary. He was instrumental in the construction of the Holy Angels Church on the North Shore of Sugar Island and several other island churches. He was a central figure in Catholic service and education on Sugar Island and beloved by the Native and White populations of his era (dioceseofmarquette.org, 2017).

Governor Chase S. Osborn was another influential figure in Sugar Island history. Chase Osborn, a man of many talents, was Michigan Governor in 1911-1912, a publisher, prolific writer, naturalist and philanthropist. In the late 1800's, Osborn was a newspaper editor of The Sault News, in Sault Ste. Marie, Michigan and later served as Sault Ste. Marie postmaster from 1889 to 1893. Governor Osborn was a conservation enthusiast. He purchased 3,000 acres on Sugar Island's Southern portion (including Duck Island). In 1929 this large plot of land was donated to the University of Michigan, by Gov. Chase S. Osborn, to be maintained as a preserve. He was able to continue to enjoy his summers on Sugar Island at the Osborn Preserve until his death in 1949. The University of Michigan Osborn Preserve continues with a caretaker to ensure its continued benefit to Sugar Islanders, (Arbic, 1992).

Many other cultures and nationalities have been involved in the growth of Sugar Island Township. Until after World War I the dominant culture was the Chippewa tribe. In the 1920's the Finnish came to the Island and even gave it a name, *Sokeri Saari*. Their gathering place was the Finn Hall for meetings, dances and other social events. This building has been restored, by the Sugar Island Historical Society, along with an island school house. Both are located on Homestead Road. Farming was a large part of the Township but has declined in the last forty

years. Other businesses have grown, and fishing does remain a great interest for residents and visitors. The population of the Township grows with the nice weather and declines when the snowbirds leave. Sugar Island Township is a close-knit community. as one can see from the activities and benefits held at the Community Center, such as “Sugar Island Strong” for islanders in need. A more in-depth history of Sugar Island can be enjoyed by reading the books and articles available locally, from the Bayliss Public Library, and Lake Superior State University Shouldice Library.

References

Arbic, Bernard A., (1992). Sugar Island Sampler. The Priscilla Press. Allegan Forest, Mi.

<http://www.dioceseofmarquette.org/venbishopbaragahistory/baragapilgrimage>

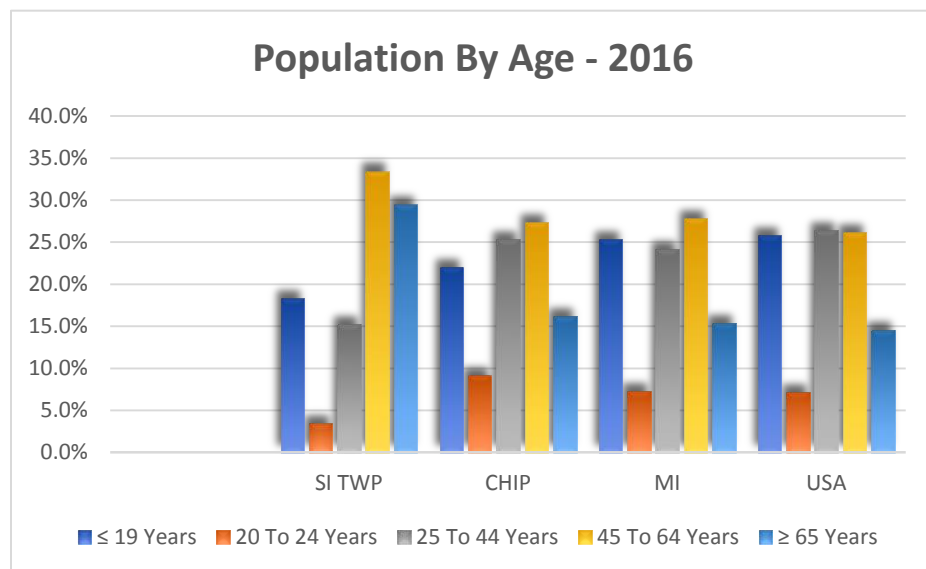
Retrieved 12-18-17

<http://www.saulttribe.com/history-a-culture/sovereignty/7-history-a-culture/41-story-of-a-people>

Retrieved 12-18-17

Population Growth and Residential Construction

According to U.S. Census Bureau's American Community Survey (ACS data), for 2016, the Township's population stands at 650, this continues a trend of slow decline since the 2000 census of 683. However, since the 1990 Census, the Township's population has increased exponentially, at 47.4 percent. The Township's population decline, of 4.8 percent is significantly higher than the declines experienced across Chippewa County, and the State of Michigan.



Housing Data

During 2016, there were 698 total housing units; 87.8 percent of the housing units in the Township were occupied. 63.6 percent of these were owner-occupied, while 36.4 were renter occupied units. Vacant housing units accounted for 12.2 percent of the total housing stock. Of these vacant units, 87% were identified as seasonal, recreational or occasional use.

Characteristics of the housing stock indicate that 89 percent are 1-unit detached units, which is well above the county level (76.1%), state (72.1%) and National (61.6%). 25.1 percent of these units were constructed between 1990 and 1999, with the largest proportion built earlier than 1970 (43.5%).

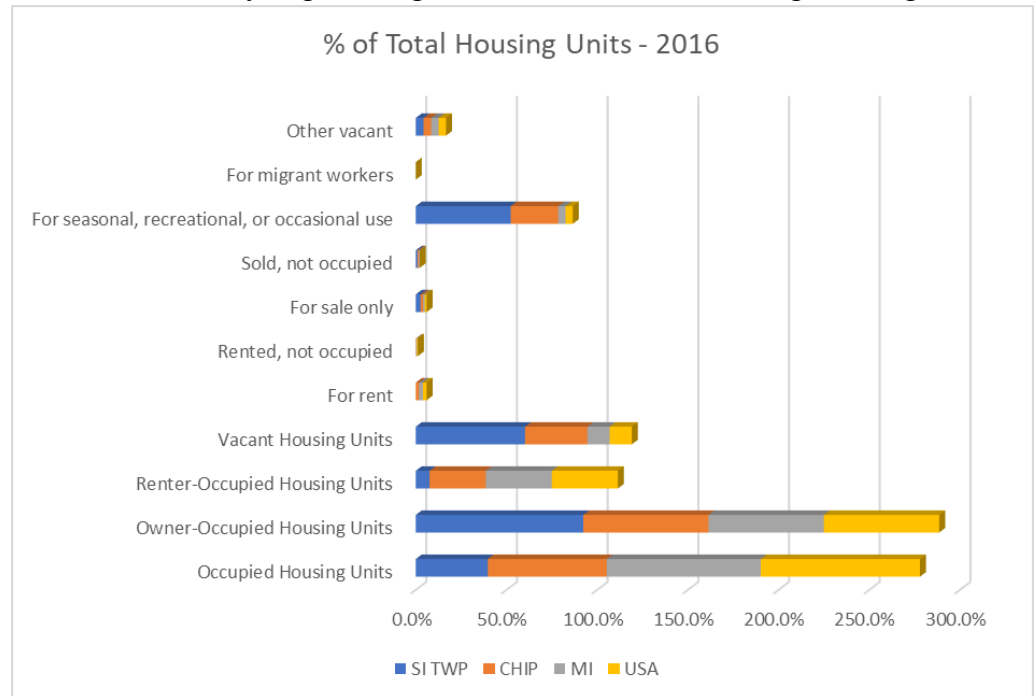
According to the 2016 ACS data, 40.5 percent of the Township's population moved to their current housing unit prior to 1990, this outpaces the level at the County (34.9), State (35.6) and national (30.4) rates.

Homeowners use various forms of fuel with which to heat their units. In 2016 45.5 percent utilized bottled, tank or LP gas; 27.8 used wood fuels; 15.2 used electricity, and 4.3 used fuel oil/kerosene, etc. This should not be surprising data, since the island does not have utility gas providers, and results in a higher usage of bottled/tank/LP gas than at the County level (20.6), State (8.3) or Nation (4.8).

The median home value in the Township was \$114,800 during 2017, which is slightly

higher than the median value County-wide of \$109,700, but significantly less than the State (\$127,800) and Nation (\$184,700). Since 2010, the median home value in the township as decreased by 3.4 percent, while the County median has increased 6.4 percent.

An important indicator when analyzing housing is the actual Cost of Housing. During 2016, 39.4 percent of all occupied housing units had a mortgage, with a median monthly cost of \$972; 45.7 percent of the occupied units were classified without a mortgage, with a median monthly cost of \$139. Occupied units paying rent were just over 5 percent, with a monthly median cost



Source: US Census Bureau, ACS 2016

of \$542. Both rental and mortgage monthly costs were well below county, state and national averages.

Emergency Management

The Sugar Island Community Center has been designated as a Red Cross Emergency Shelter. The SI Township Supervisor and Planning Commission are working with the Red Cross Disaster Program Manager, to develop the plan for implementation of this shelter. This disaster plan will make the shelter available for Sugar Island Township residents when a Township emergency or a disaster occurs, and resident relocation is needed. Additionally, a plan is being developed, by the Township and the Sault Tribe of Chippewa Indians, to allow emergency use of the Mary Murry Culture Camp, located on Brasser Road, if overnight accommodations, for Township residents, are needed. The Sugar Island Community Center has a generator for use during power outages. If this does occur on Sugar Island Township the contact persons are the current Township Supervisor, Fire Chief and/or the Red Cross representative.

Medical services for Township residents are provided by the Sugar Island EMS personnel and the Sugar Island ambulance. The Sugar Island ambulance barn is located on 1 ½ Mile Road next to the Community Center. The ambulance barn also has housing to accommodate the on call EMT and Paramedic personnel that are utilized by the Township to assist with EMS services. If an increased level of medical care is indicated by patient complaint and condition, Soo Fire EMS services are transported to the island by the Sugar Island ferry and care of the patient is transferred from local EMS to the Paramedic care providers. In the event of lack of SI ferry services for patient transport to the mainland, the US Coast Guard and Chippewa County Sheriff will assist with an air evac helicopter or an emergency hover craft transport, to negotiate crossing ice and water to the Sault Ste. Marie, MI mainland and War Memorial Hospital.

The Sugar Island Township Volunteer Fire Department is comprised of seventeen certified volunteer fire fighters. The Township's fire station is located on 1 ½ Mile Road by the Community Center. The Township's fire station has shower, bathroom and kitchen facilities for the fire personnel and ambulance service use when needed. When major fires occur, fire departments from neighboring municipalities are paged out to aid, if needed.

Solid waste pickup and disposal, for Township generated trash, is provided by Waste Management, Inc. by means of North end and South end dumps. The North end dump, run by Township employees, has posted times on the gate and is open four days a week. The South end dump is open from May through October for island residents. Recyclable materials can be deposited at the North End Transfer Station, located at 1 ½ Mile Road, into the recycling trailer located at the North end dump. This trailer is taken to the mainland at a minimum of every two weeks and unloaded at Chippewa County Recycling Center, located on Easterday Avenue.

Township water and sewer services are provided by the residents with private wells and septic fields on their property. Island residents follow the Sugar Island Zoning ordinances when establishing and maintaining these services. Direct sewage discharge into the surrounding waterways and ponds is prohibited by Sugar Island Township Zoning General Standard 3.15A.

Electric services are provided to the Township by the Cloverland Electric Cooperative, located in Dafer, Michigan and serving Chippewa County residents. An agreement with Cloverland Electric Cooperative has been established in the event of a ferry ice breaking emergency. The letter of agreement states “the company will work in cooperation with the Sugar Island Township during USCG spring ice breaking operations and will strive to have the necessary equipment in place to provide support for electrical system failures during such operations. This support will include line material, transformers and aerial lift equipment.” (see attached 03/16/2018 letter of agreement from Cloverland Electric Cooperative)

Police protection is provided to all areas of the Township by the following agencies: Chippewa County Sheriff Department, Michigan State Police Post, Bay Mills Police, Sault Tribe Police and U.S. Border Patrol which are in Sault Ste. Marie, Michigan and Bay Mills, Michigan. Emergency access to the Township, for these police agencies, is maintained by use of the Sugar Island Ferry.

Township Government

The Township Board consists of a Supervisor, Clerk, Treasurer and two Trustees. All are elected for four-year terms. The Township is not a chartered township but is a general township. Monthly public Township meetings are held the second Tuesday at 7pm at the Community Center.

Section 3: Natural and Cultural Variables Affecting Land Use

A major role in the planning process is the identification of natural and cultural variables which affect land use. Each variable should be discussed in more detail by Township officials and included as this Plan is revised and updated over the future years.

Geology - Bedrock & Slopes

Geologic information suggests that Sugar Island was probably formed from glacier activity which occurred about 15,000 years ago. Several geologic factors are used to determine the most appropriate and advantageous land use. Slope characteristics help determine drainage and erosion capability for development. Slope is determined by measuring the horizontal distance between contour lines. It is calculated in percentage. Three types of sloping veins exist in the Township - "severe" sloping veins (25% & greater), "moderate" sloping areas (10% - 25%), found mostly in the northern half of the Township, and "slight" sloping areas (less than 10%). (See Map 2) Construction is not a practical option where "severe" sloping areas exist. Costs for construction, installation and maintenance of systems needed to control erosion and drainage could be high. "Moderate" and "slight" sloping areas provide the best drainage and erosion control options for construction. Bedrock geology plays a major role in land use analysis.

The depth of bedrock from the land surface is a critical determinant in land development. Where bedrock and heavy boulders exist within ten feet of the surface, construction is not recommended. These areas may be found mostly in the northern part of the Township. Geologic data show that most of the Township's bedrock is deeper than ten feet, making these areas more appropriate for development.

Soils

Soils are a part of a natural resources inventory which also help determine if construction is better in some areas more than others. Map 3 provides reliable soils hydrology information for the Township. The Township is comprised of mainly three soil associations which can be found on the USDA General Soils Map 4. An estimated one-third of the Township is comprised of soils with very slow infiltration; just under two-thirds is comprised of slow infiltration soils, and the remaining portions contain soil which has a moderate and high infiltration levels. Soil types affect foundation strength, septic system operations, plant fertility, erosion and drainage. As such, the Township should consider development only in areas where the soils can adequately and safely handle these elements.

Land Cover

Land cover types in the Township include forest land, non-forest land (open areas), agricultural land, urban 1 (rural residential communities), wetlands and water areas. Map5

provides color detail of these areas. Approximately 70 percent of the Township consists of second-growth forest, ten percent residential (urban 1), ten percent agricultural, with the remaining being wetlands, water and non-forest land.

Land Ownership

Publicly-owned land may be found amid privately and commercially-owned property in the Township. (See Map 6 - Land Ownership Use) The Township includes 46 square miles of land area. Approximately 80 percent is privately-owned, with the remaining 20 percent owned by the Township, State and Federal governments. The University of Michigan owns nearly 3,000 acres, which includes Duck Island. The property was given to the University by Michigan Governor Chase S. Osborn, a former Sault resident, a Michigan Governor and active conservationist who spent summers on Sugar Island until his death in 1949. He is buried on Duck Island. The United States government holds property owned by the Sault Ste. Marie Tribe of Chippewa Indians and property owned by the Bay Mills Tribe of Chippewa Indians as trust lands. A public radio tower is situated on Township property, and operates through Central Michigan University. Seven cemeteries are located in the Township, including the Bethel (McFarland) Family Cemetery (T47N R2E, Sec. 20), Duck Island Cemetery (T46N R2E, Sec. 26), Maple Ridge/Bai-De-Wasai Cemetery (T47N R1E, Sec. 19), Payment Family Cemetery (T48N R2E, Sec. 26), the Finnish/Shingle Point Cemetery (T47N R2E, Sec. 16), St Luke's On the Trail (T45N R2-3E, Sec. 1), and Wilwalk Cemetery (T46N R2E, Sec. 8). (A portion of this information was provided by the Bayliss Public Library through the efforts of the Chippewa County Genealogical Society 2001.) One of the remaining active churches on the Island is Sacred Heart (Catholic) Parish (near Baie de Wasai) which was built around 1925. Priests from St. Mary's Pro-cathedral in Sault Ste. Marie hold Sunday morning early Mass at the church each week. St. Luke's On the Trail is a non-denominational church located off Homestead Road in the southern part of the Island. The church was built in 1986 and is generally open only during the summer season. (Map 6 shows locations of cemeteries and churches).

SUGAR ISLAND TOWNSHIP FUTURE LAND USE

The Sugar Island Future Land Use Map, included here as Map 9, illustrates the future land use district boundaries. The Township's goals and intentions as it relates to future land uses and activities in each of these districts are described in more detail below.

Waterfront District

The Waterfront District future land use category consists of housing types located around the exterior boundary of Sugar Island Township and the adjacent bodies of water, including the St. Mary's river and Lake George. Homes directly on the waterfront may include accessory structures such as docks and boathouses.

Recommendations to the Zoning Ordinance:

- *Eliminate Intensive and Extensive Development Waterfront Zones and move to singular Waterfront District designation.*

Commercial District

This district includes general commercial uses that could be developed in a linear pattern located along a major transportation corridor, which is often called a “strip” style of commercial development. The term General in this context refers to commercial enterprises that serve a broad market, and businesses that are not specific to a type of location and could include auto dealerships, hotels, chain restaurants, gas stations, and malls.

Rural Residential District

This district’s uses will be characterized by relatively low-density residential uses. On the current zoning map, Rural Residential is represented as Agriculture. Parcel sizes in this district will be comparatively larger than the Waterfront District. Areas in this district are located relatively farther away from higher density developments and on the interior of the Island.

Limiting factors for development in this district include slopes, soils, wetland areas, and the presence of other natural features. Utility service is a factor due to density and coverage.

Recommendations to the Zoning Ordinance:

- *Change current designation of Agriculture to Rural Residential, section will need to be incorporated into the Zoning ordinance with specific features of the rural residential district identified, including setbacks, permitted used, special uses and intent.*

Forestry/Recreation District

This district includes lands primarily characterized by areas of wetlands and forest lands. These lands are prevalent in the eastern and southeastern, and northwestern portions of the Island. The primary function of the district is to protect recreational, scenic and forest resource values.

Recommendations to the Zoning Ordinance:

- *Modify the Zoning Ordinance map to reflect the district geographic extents identified in the Future Land Use Map to certify consistency.*

Existing Dimensional Standards

Existing Districts						
Existing Dimensional Standards			Shoreline	Commercial	Agriculture	Forest/Rec
Maximum Building Height	Feet		30 ft.	Special Permit Only		Special Permit Only
	Stories		2.5			
Lot Standards	Min. Width (ft.)		100 ft.		100 ft.	
	Min. Depth (ft.)		500 ft.		200 ft.	
	Min. Area (ft.)		20,000 sq. ft.		1 acre	
Setback Standards	Front Yard (from ROW)	Minimum	25 ft. dwellings 75 ft.	Special Permit Only	NA	Special Permit Only

			Non-dwellings			
	Side Yard	Minimum	10 ft.		NA	
	Rear Yard	Minimum	NA		NA	
Floor Area		Minimum	600 sq. ft.	600 ft.	600 sq. ft.	600 sq. ft.

Relationship Between the Master Plan's Future Land Use Districts and Existing Zoning Districts

Master Plan Future Land Use District	Corresponding District(s) in Existing Zoning Ordinance	Potential Future Zoning Ordinance Districts
Waterfront	Shoreline District (Intensive/Extensive)	W-1, Waterfront
General Commercial	Commercial	C-1, Commercial
Rural Residential	Agriculture	RR-1, Rural Residential
Forestry/Recreational	Forest/Recreation	FR-1, Forest/Recreation

Other Recommendations:

- Review and update zoning definitions; and expand dimensional standards (see table above for missing or inconsistent information)
- Add provisions to address siting of small scale solar and wind energy facilities
- Code all zoning districts for clarification and consistency, as identified in the table above.

Roads

As of April 2018, most of the main public roads in the Township are paved. The Chippewa County Road Commission working with the Township Board have plans in place for completion and renovation of the remainder of the unpaved public roads. Current road project goals are completion of: two gravel lifts - S. Westshore including Six Mile Road (Laramie Hill), and Townhall Road to Hay Point Road. Future improvements will continue with the approval of the Chippewa County Road Commission and Township Board. Currently the Township maintains approximately 42 miles of paved roads (information provided by Chippewa County Road Commission 5.16.2018 and Township Board). See Map 7 – Road Systems for a visual assessment. Township road maintenance is provided by the Chippewa County Road Commission which maintains a storage facility in the Township. With the increasing population of the Township, and subsequent increase in roadway use, the need for upgrading and maintaining roadways in all portions of the Township is essential. Goals for the Township should be to develop a detailed assessment of existing roads and their conditions and short- and long-range plans for construction or improvements to maintain existing roads, addressing road issues in a timely manner.

Utilities and Other Services

Electric service to the Township is provided by Cloverland Electric Cooperative via underwater cable. Telephone service is also provided to the Township through underwater

cables. The Township contracts with Waste Management of the Eastern U.P. for garbage collection. Transfer stations are in two locations for voluntary disposal. The northern station is open year-round, and the southern station is open during the summer season.

Wildlife

Sugar Island is a small island nestled in the middle of the St. Mary's River. Part of the allure of an island is the separation from the rest of society. Islanders will tell you this is the beauty of the island and one of its biggest assets.

The island has a diverse variety of plants and wildlife. The inland lakes and streams along with forest areas provide a home for various animals such as moose, white tail deer, black bear, bobcats, lynx, gray wolves and elk. The bogs are home to the muskrat, beaver, otter, raccoon, porcupine, skunk, mink, and weasel. The island is dotted with snowshoe hare, various squirrels and chipmunks. The island is known among the birding community as an avian mecca and is an excellent site for watching birds. It first gained its reputation as an attractive spot from which the great grey owl hunted in the winter. Flocks of bird watchers arrive every spring to watch the species of birds which drop south into Michigan in seven to eight-year cycles. The spring and summer seasons bring other birds to Sugar Island including, songbirds, hummingbirds, Canadian geese, woodpeckers, mute swans, loons, migratory ducks, mallards, wood ducks, and blue wing teals. Island residents are blessed with eagles that soar overhead all year long. The wide variety of wildlife residing in the Township adds to the allure of island living.

Section 4: Summary

The revision of the Sugar Island Township Master Plan directs the island and islanders into the future while maintaining the quiet and natural beauty surrounding the island. All long-term goals, ordinance changes, updates, and modifications will be made with the island's natural surroundings and environment as a focal point for any changes made.

As this progress continues and changes come to the Township, the goal should be to preserve the natural waterways, remember the island history, and respect the wildlife. For residents who came here before and for those who are yet to come, let us remember, that as the Township moves forward it is to our benefit to always look backwards.

The September 2018 Master Plan was developed by the Planning and Zoning Commission members: Kathy Dickey, Tanya Menard, Kipper Biron, Judy Smith, and Adrienne Beckham.











Cloverland Electric Cooperative Letter of Agreement 3/16/2018



March 16, 2018

Sugar Island Township

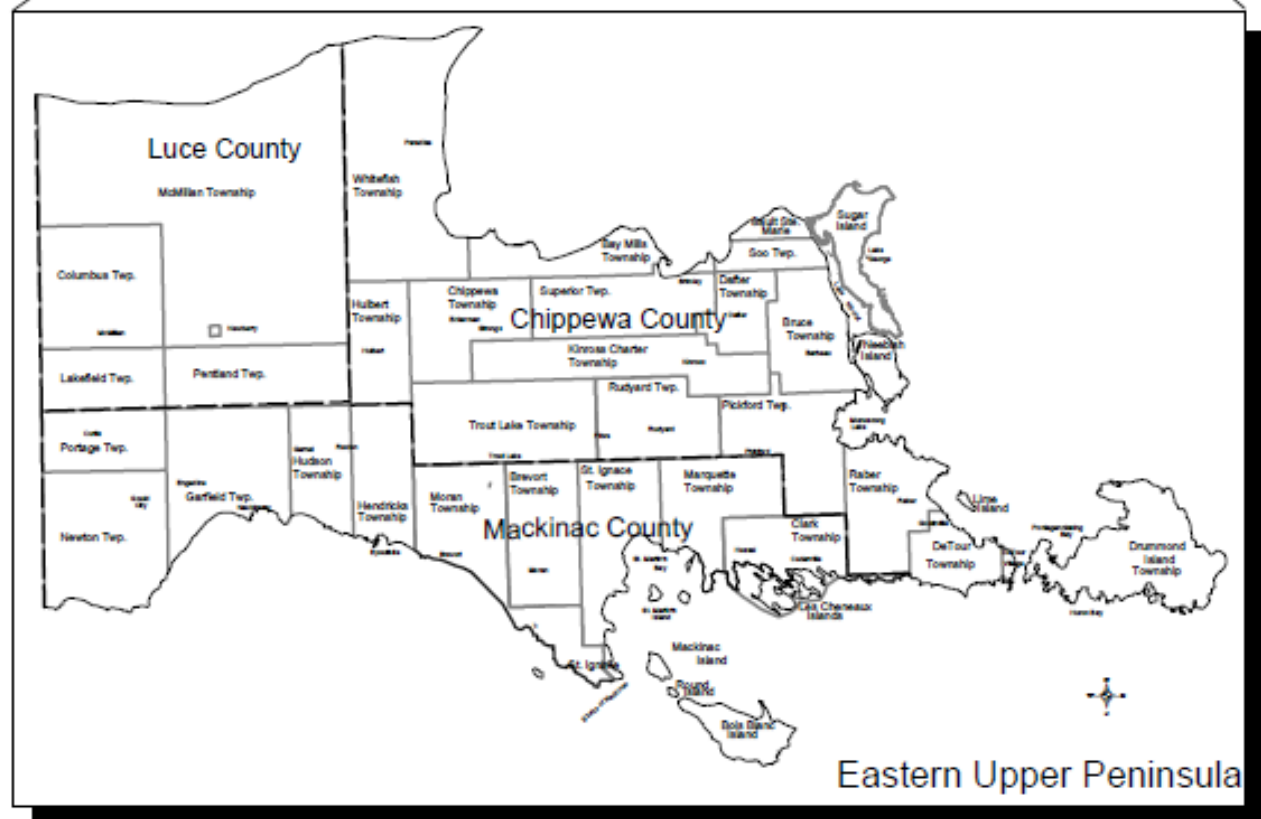
Re: Ice Breaking Operations

Cloverland Electric Cooperative will work in cooperation with the Sugar Island Township regarding emergency operations during the USCG spring ice breaking operation and will strive to have the necessary equipment in place to provide support for electrical system failures during such operations. This support will include, line material, transformers and aerial lift equipment.

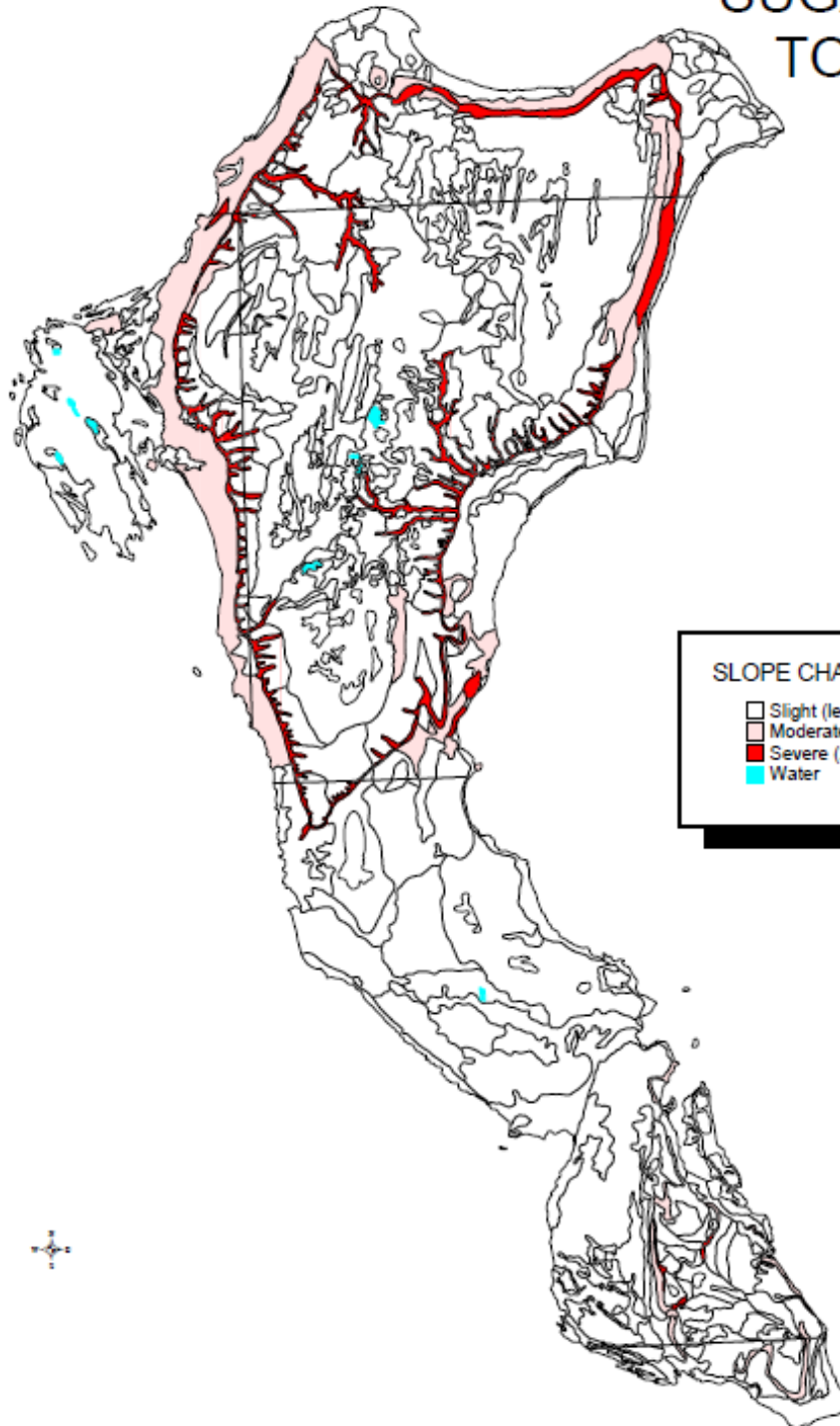
Sincerely,

Paul Warner
Division Manager - Dafter
Cloverland Electric Cooperative

MAP 1 LOCATION MAP SUGAR ISLAND TOWNSHIP



MAP 2 SUGAR ISLAND TOWNSHIP

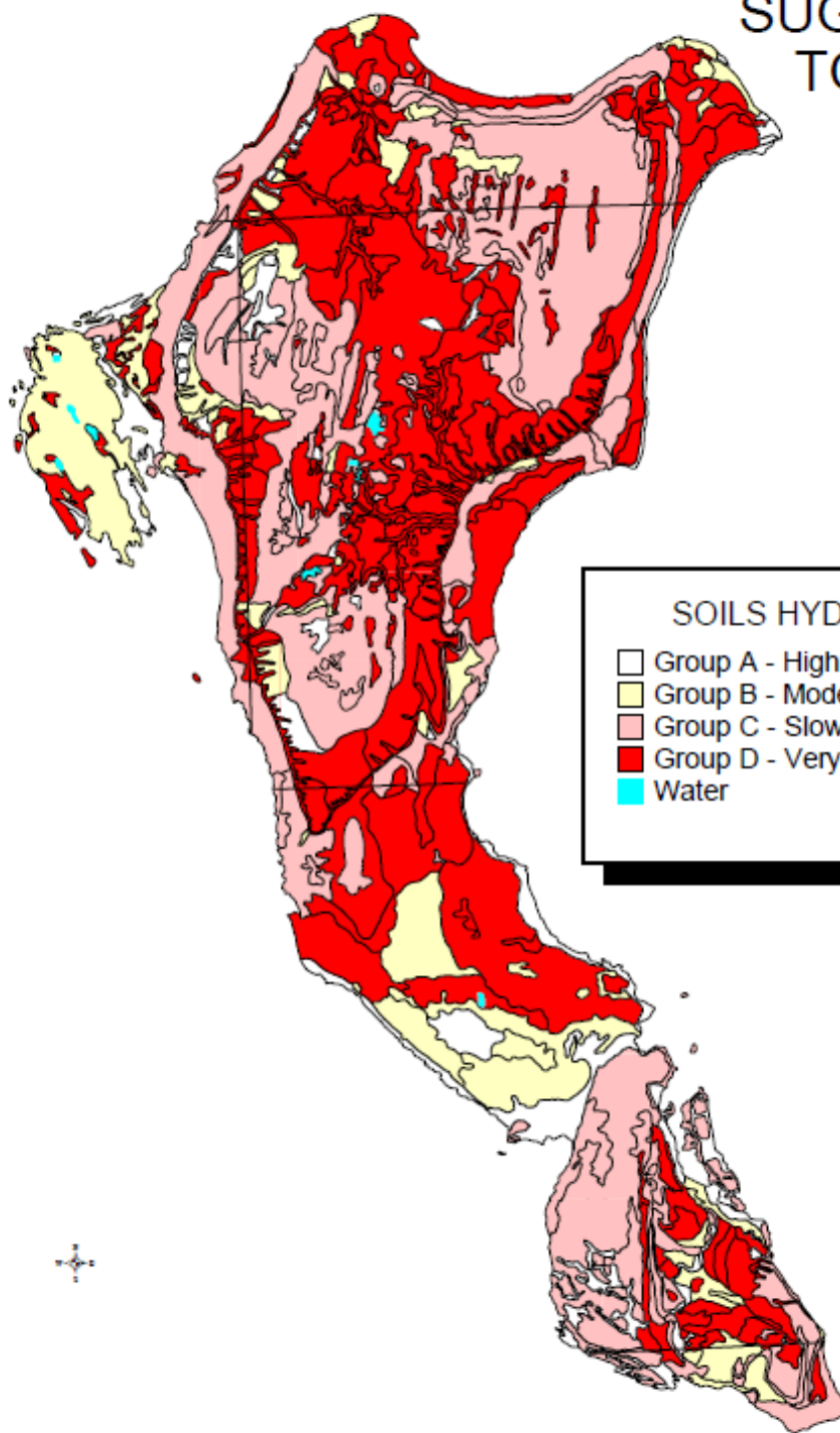


SLOPE CHARACTERISTICS

- Slight (less than 10 %)
- Moderate (10% - 25%)
- Severe (25% and greater)
- Water

SCALE: 1" = 1.75 MILES

MAP 3 SUGAR ISLAND TOWNSHIP



SOILS HYDROLOGY

- Group A - High Infiltration
- Group B - Moderate Infiltration
- Group C - Slow Infiltration
- Group D - Very Slow Infiltration
- Water







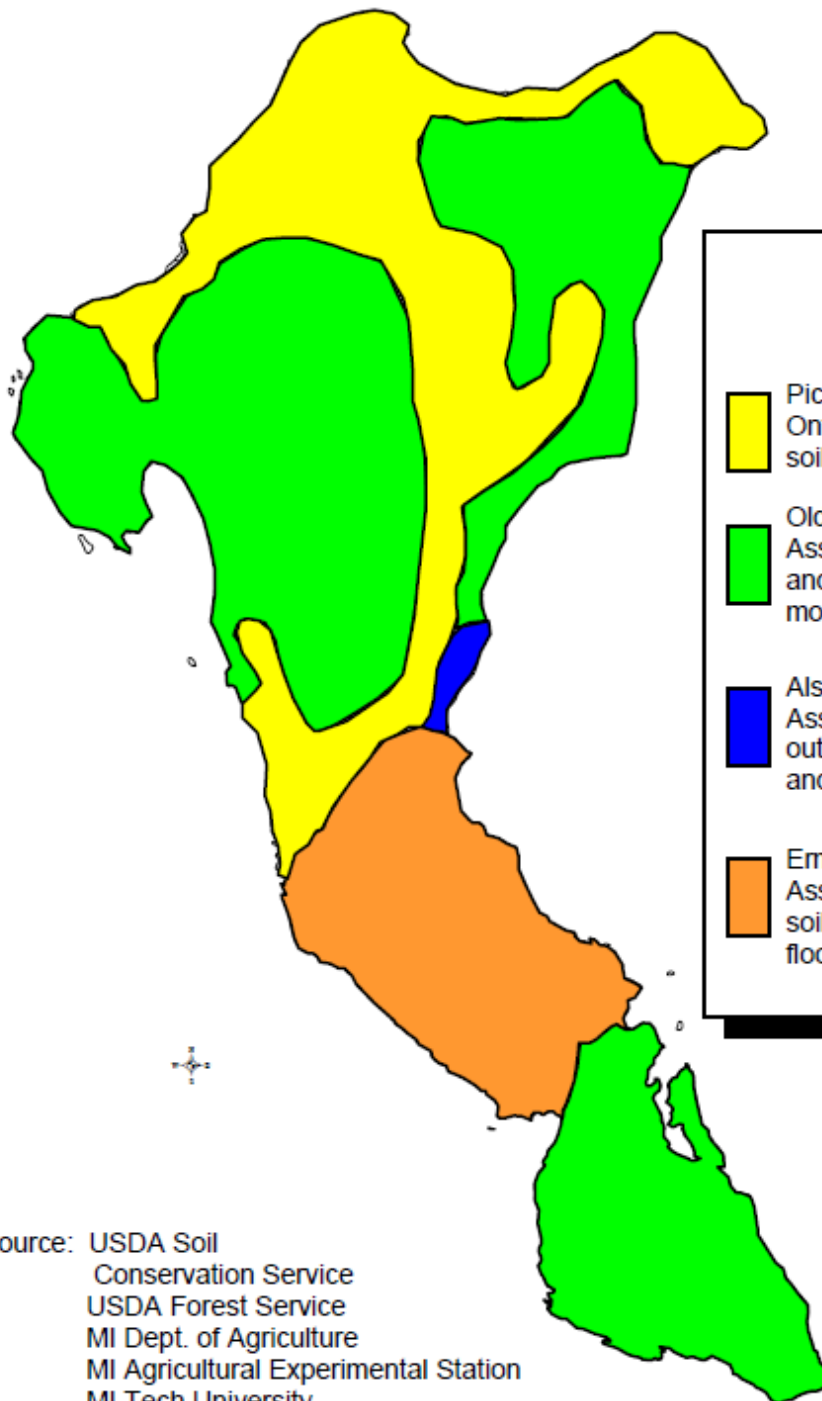
SCALE: 1" = 1.75 MILES

MAP 4 SUGAR ISLAND TOWNSHIP

Legend

General Soils

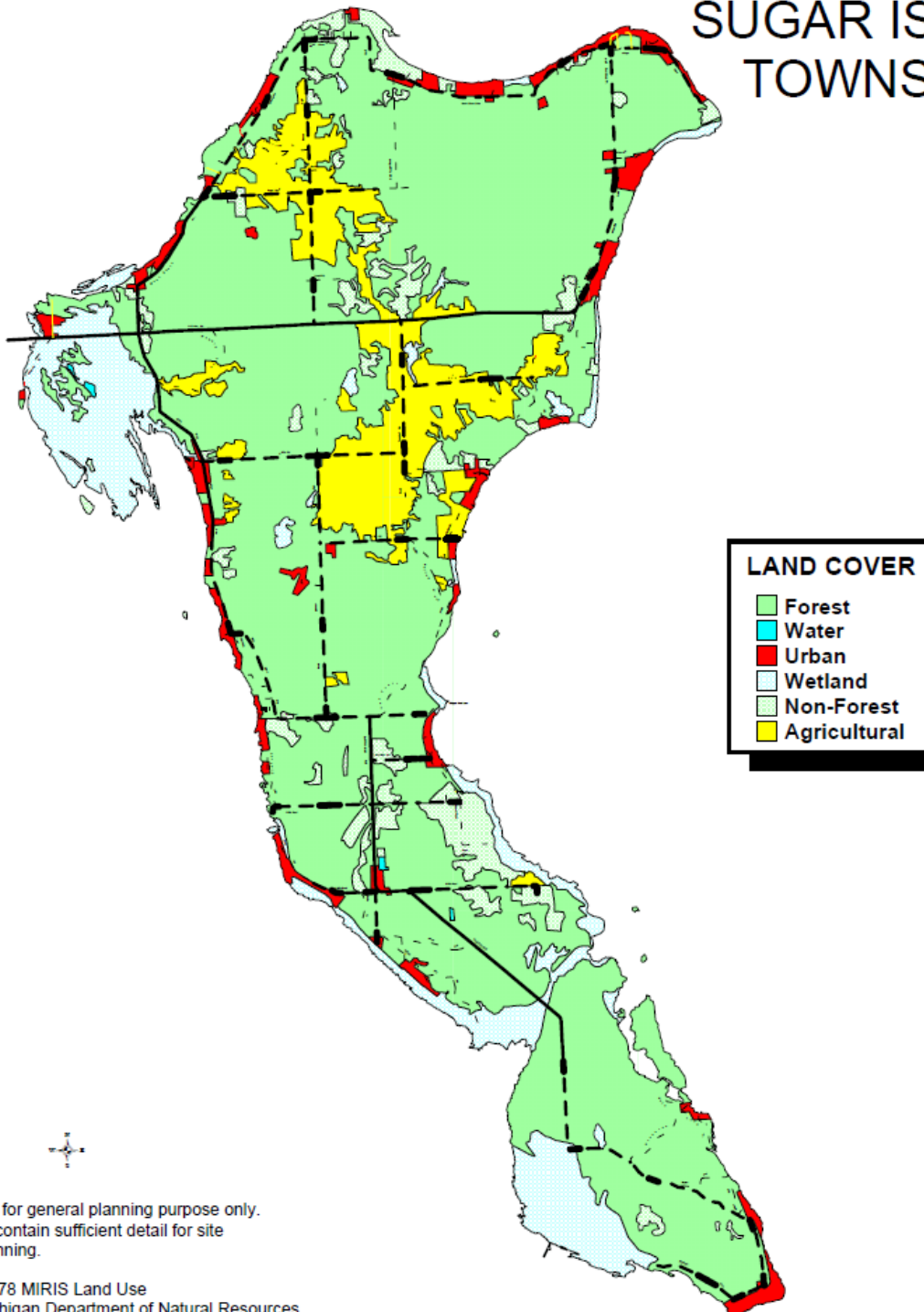
-  Pickford-Rudyard-Ontongan Association (loamy soils on lake plains)
-  Oldman-Velvet-Gay Association (loamy, sandy and mucky soils on ground moraines and end moraines)
-  Alsona-Ingalls-Manistee Association (sandy soils on outwash plains, lake plains, and ground moraines)
-  Ermatinger-Wega-Brown Association (loamy and sandy soils on lake plains and the former flood plains of glacial rivers)



Source: USDA Soil
Conservation Service
USDA Forest Service
MI Dept. of Agriculture
MI Agricultural Experimental Station
MI Tech University
(compiled, 1990)

SCALE: 1" = 1.75 MILES

MAP 5 SUGAR ISLAND TOWNSHIP



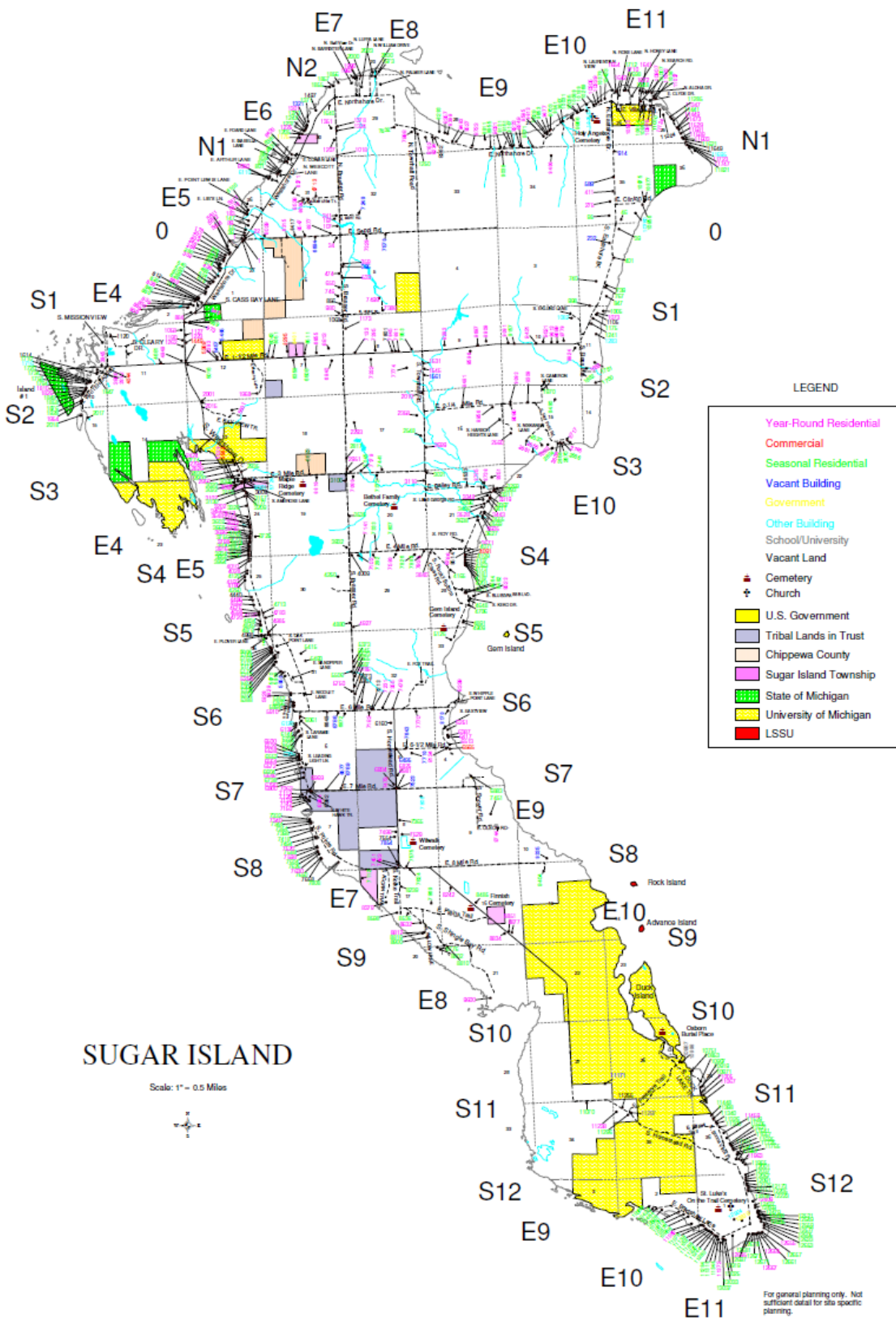
This map is for general planning purpose only.
It does not contain sufficient detail for site
specific planning.

Source: 1978 MIRIS Land Use
Michigan Department of Natural Resources

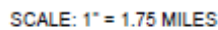
Created by: EUP Regional Planning & Development Comm.

SCALE: 1" = 1.75 MILES

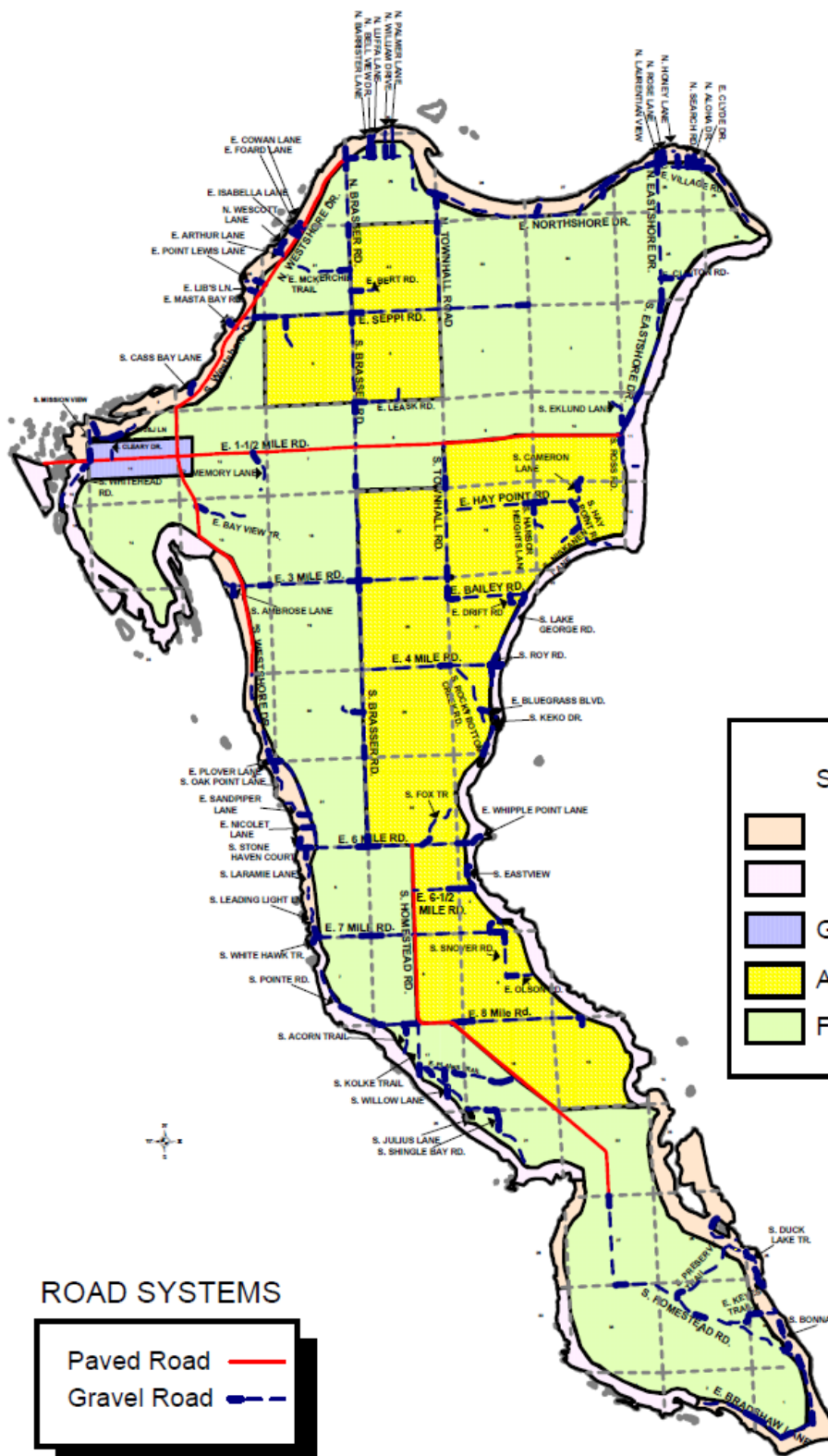
Map 6 Land Ownership/Use



SCALE: 1"=1.75 MILES



MAP 8 SUGAR ISLAND Existing Land Use (1978)



Land Use

Shoreline District (Resort Dev.)

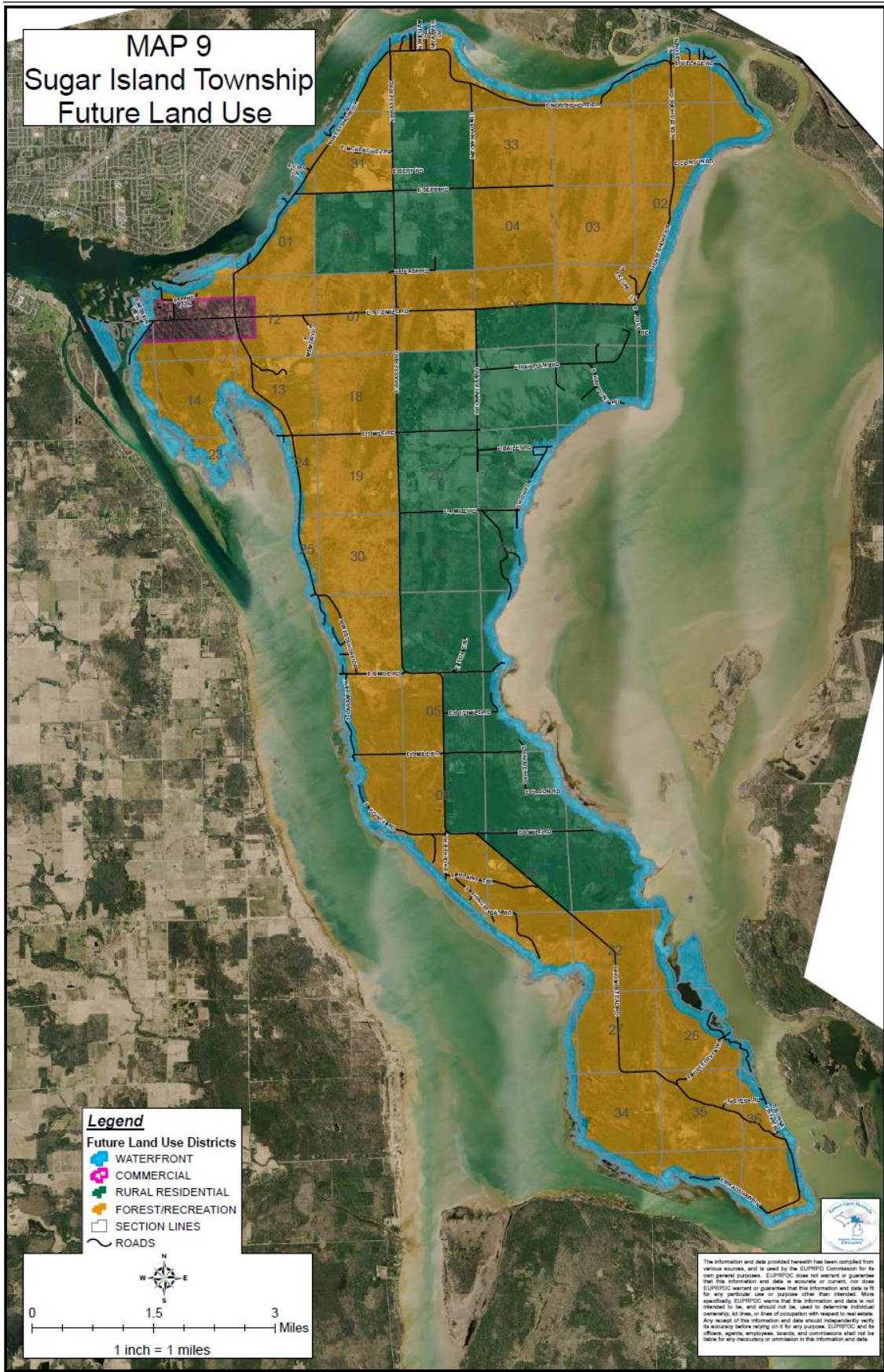
- A. Intensive Development
- B. Extensive Development
- General Commercial
- Agricultural
- Forestry/Recreational

ROAD SYSTEMS

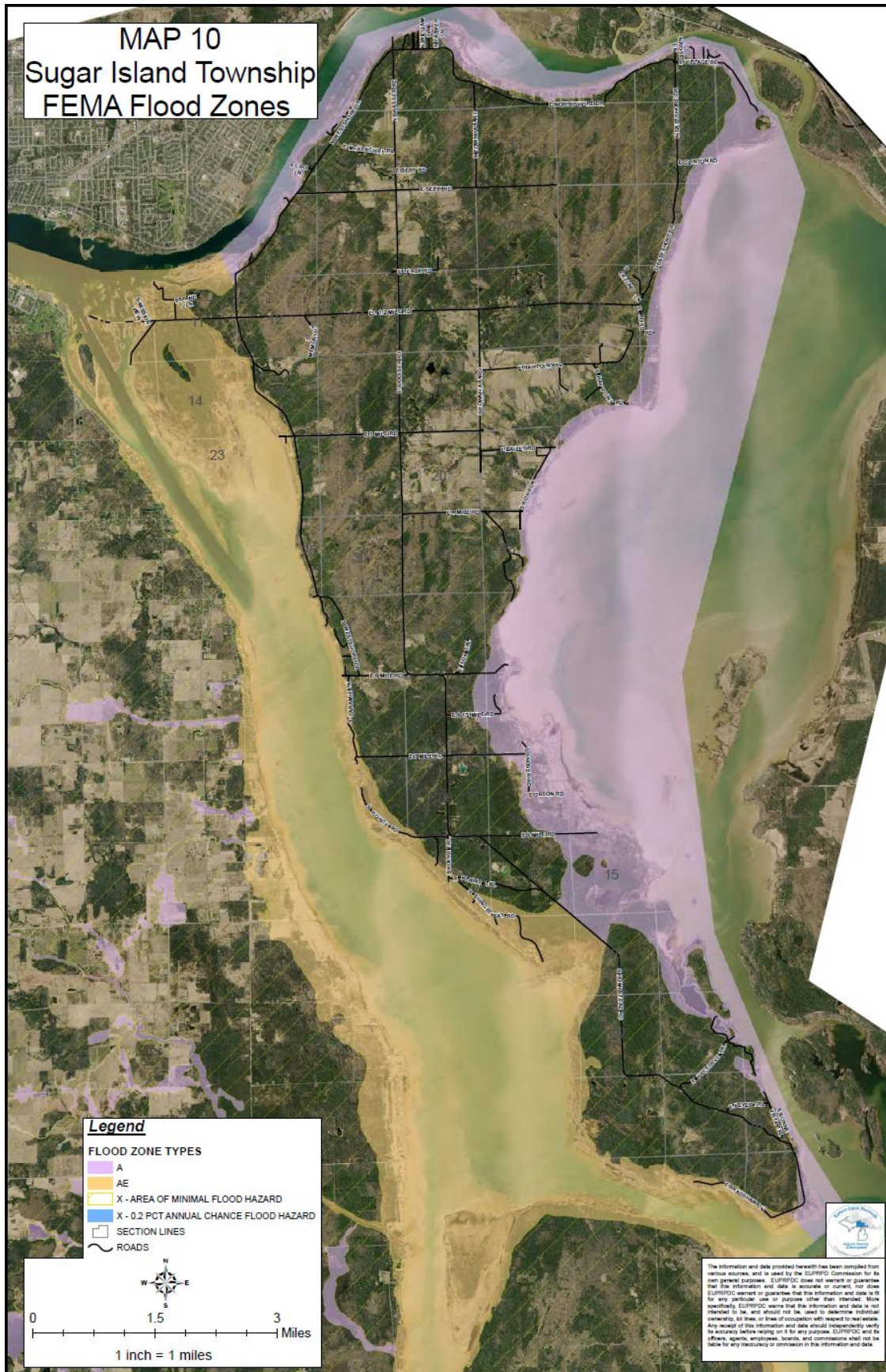
- Paved Road
- Gravel Road

SCALE: 1" = 1.75 MILES

This map is for general planning purpose only. It does not contain sufficient detail for site specific planning.



MAP 10 Sugar Island Township FEMA Flood Zones



APPENDIX – 2016 ACS Census Data, Sugar Island Township

Chart 1 – Population Data

Category	Sugar Island Twp.		Chippewa County		Michigan		United States	
	#	%	#	%	#	%	#	%
Total Population	650	100.0%	38,330	100.0%	9,909,600	100.0%	318,558,162	100.0%
% Change 2010-2016								
Median	55.1		39.8		39.5		38	
Age	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
≤ 19 Years	119	18.3%	8,440	22.0%	2,505,495	25.3%	82,296,405	25.8%
20 To 24 Years	22	3.4%	3,483	9.1%	721,224	7.3%	22,612,610	7.1%
25 To 44 Years	99	15.2%	9,679	25.3%	2,396,310	24.2%	83,946,307	26.4%
45 To 64 Years	218	33.5%	10,508	27.4%	2,758,873	27.8%	83,522,208	26.2%
≥ 65 Years	192	29.5%	6,220	16.2%	1,527,698	15.4%	46,180,632	14.5%
Male/Female Distribution	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
Male	322	49.5%	21,209	55.3%	4,869,885	49.1%	156,765,322	49.2%
Female	328	50.5%	17,121	44.7%	5,039,715	50.9%	161,792,840	50.8%
Population By Race	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
Total Population	650	100.0%	38,330	100.0%	9,909,600	100.0%	303,965,272	100.0%
White	453	69.7%	27,370	71.4%	7,817,827	78.9%	231,170,208	73.3%
Black or African American	0	0.0%	2,564	6.7%	1,376,446	13.9%	40,633,114	12.6%
American Indian or Alaska Native	131	20.2%	5,573	14.5%	52,891	0.5%	4,787,447	0.8%
Asian	19	2.9%	385	1.0%	276,769	2.8%	16,198,607	5.2%
Native Hawaiian or Other Pacific Islander	2	0.3%	28	0.1%	2,492	0.0%	973,336	2.0%
Some Other Race	0	0.0%	83	0.2%	111,377	1.1%	18,133,954	4.8%
Hispanic or Latino	9	1.4%	639	1.7%	474,381	4.8%	47,727,533	17.3%
Veteran Population	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
Civilian Population 18 Years And Over	681	539	31,184	30,843	7,526,062	7,678,119	228,808,831	243,935,157
Veterans	166	78	4,137	3,487	731,023	602,630	22,652,496	19,535,341
Sources: U.S. Census Bureau: American Community Survey								
% of Population	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
Veterans	24.4%	14.5%	13.3%	11.3%	9.7%	7.8%	9.9%	8.0%
Sources: U.S. Census Bureau: American Community Survey								
% Change 2010-2016	Sugar Island Twp.	CC	MI	USA				
Civilian Population 18 Years And Over	-20.9%	-1.1%	2.0%	6.6%				
Veterans	-53.0%	-15.7%	-17.6%	-13.8%				
Sources: U.S. Census Bureau: American Community Survey								
GROUP QUARTERS POPULATION 2016	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
Total Population	652	650	39,078	38,330	9,952,687	9,909,600	303,965,272	318,558,162
In Group Quarters	0	0	5,235	4,191	235,850	229,188	7,997,020	8,075,215
Sources: U.S. Census Bureau: American Community Survey								
% Of The Total Population	Sugar Island Twp.		Chippewa County		Michigan		United States	
	2016	%	2016	%	2016	%	2016	%
In Group Quarters	0.0%	0.0%	13.4%	10.9%	2.4%	2.3%	2.6%	2.5%
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA				
Total Population	-0.3%	-1.9%	-0.4%	4.8%				
In Group Quarters	0.0%	-18.4%	-2.4%	-3.6%				
Sources: U.S. Census Bureau: American Community Survey								

Chart 2 – Income Characteristics

	Sugar Island Twp.		Chippewa Co.		Eastern UP		Michigan		United States	
<u>HOUSEHOLD INCOME 2016</u>	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Total Households	374	277	14,836	13,905	22,236	21,451	3,843,997	3,860,394	114,235,996	117,716,237
≤ \$24,999	98	72	4,743	4,166	7,011	6,297	967,385	932,555	26,909,874	26,297,668
\$25,000 To \$49,999	132	79	4,079	3,770	6,333	6,251	1,008,127	967,054	28,176,742	27,217,272
\$50,000 To \$99,999	100	95	4,540	4,436	6,808	6,609	1,195,243	1,177,974	35,299,006	35,275,632
≥ \$100,000	44	31	1,474	1,533	2,084	2,294	673,242	782,811	23,850,374	28,925,665
Sources: U.S. Census Bureau: American Community Survey										
% Of Total Households	Sugar Island Twp.		Chippewa Co.		Eastern UP		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
≤ \$24,999	26.2%	26.0%	32.0%	31.8%	31.5%	29.4%	25.2%	24.2%	23.6%	22.3%
\$25,000 To \$49,999	35.3%	28.5%	27.5%	28.8%	28.5%	29.1%	26.2%	25.1%	24.7%	23.1%
\$50,000 To \$99,999	26.7%	34.3%	30.6%	34.6%	30.6%	30.8%	31.1%	30.5%	30.9%	30.0%
≥ \$100,000	11.8%	11.2%	9.9%	11.7%	9.4%	10.7%	17.5%	20.3%	20.9%	24.6%
Sources: U.S. Census Bureau: American Community Survey										
	Sugar Island Twp.	Chippewa Co.	Eastern UP	MI	USA					
% Change 2010-2016										
≤ \$24,999	-26.5%	-12.2%	-10.2%	-3.6%	-2.3%					
\$25,000 To \$49,999	-40.2%	-7.6%	-1.3%	-4.1%	-3.4%					
\$50,000 To \$99,999	-5.0%	-2.3%	-2.9%	-1.4%	-0.1%					
≥ \$100,000	-29.5%	4.0%	10.1%	16.3%	21.3%					
Sources: U.S. Census Bureau: American Community Survey										
<u>PER CAPITA INCOME</u>	Sugar Island Twp.		Chippewa Co.		Eastern UP		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Total Population	652	650	38,520	38,330	56,264	57,044	9,883,640	9,909,600	308,745,538	318,558,162
Per Capita Income	\$ 26,659	\$ 23,811	\$ 20,309	\$ 20,839	\$ 20,310	\$ 21,629	\$ 25,135	\$ 27,549	\$ 27,334	\$ 29,829
Sources: U.S. Census Bureau: American Community Survey										
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	Eastern UP	USA	MI					
Total Population	-0.3%	-0.5%	1.4%	3.2%	30.0%					
Per Capita Income	-10.7%	250.0%	6.5%	9.1%	9.6%					
Sources: U.S. Census Bureau: American Community Survey										
<u>MEDIAN HOUSEHOLD INCOME 2016</u>	Sugar Island Twp.		Chippewa Co.		Michigan		United States			
	2010	2016	2010	2016	2010	2016	2010	2016		
Median Income Of Occupie	\$ 41,429	\$ 46,258	40,194	\$ 42,287	\$ 48,432	\$ 50,803	\$ 51,914	\$ 55,322		
Median Income Of Owne	\$ 40,804	\$ 49,167	51,265	\$ 51,999	\$ 58,850	\$ 62,251	\$ 65,167	\$ 70,586		
Median Income of Rente	\$ 90,313	nd	19,930	\$ 23,855	\$ 25,003	\$ 28,598	\$ 31,548	\$ 35,192		
Sources: U.S. Census Bureau: American Community Survey										
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA						
Median Income Of Occupie	11.7%	5.2%	4.9%	6.6%						
Median Income Of Owne	20.5%	1.4%	5.8%	8.3%						
Median Income of Rente	--	19.7%	14.4%	11.6%						
Sources: U.S. Census Bureau: American Community Survey										
<u>MEAN AND MEDIAN HOUSEHOLD INCOME 2016</u>	Sugar Island Twp.		Chippewa Co.		Michigan		United States			
	2010	2016	2010	2016	2010	2016	2010	2016		
Median Household Income	41,429	46,528	\$ 40,194	\$ 42,287	\$ 48,432	\$ 50,803	\$ 51,914	\$ 55,322		
Mean Household Income	56,125	53,429	\$ 52,341	\$ 54,418	\$ 63,692	\$ 68,928	\$ 70,883	\$ 77,866		
Sources: U.S. Census Bureau: American Community Survey										
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA						
Median Household Income	12.3%	5,2%	4.9%	6.6%						
Mean Household Income	-4.8%	4.0%	8.2%	9.9%						
Sources: U.S. Census Bureau: American Community Survey										

FAMILY INCOME 2016	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Total Families	285	189	9,340	8,586	2,553,979	2,498,193	76,254,318	77,608,829
≤ \$24,999	46	33	1,824	1,749	421,827	392,677	12,224,692	11,660,867
\$25,000 To \$49,999	112	62	2,523	2,358	616,309	558,055	17,478,457	16,432,141
\$50,000 To \$99,999	83	68	3,757	3,155	918,854	868,179	26,374,068	25,418,635
≥ \$100,000	44	26	1,236	1,324	596,989	679,462	20,177,101	24,097,186
Sources: U.S. Census Bureau: American Community Survey								
%	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
≤ \$24,999	16.1%	17.5%	19.5%	20.4%	16.5%	15.7%	16.0%	15.0%
\$25,000 To \$49,999	39.3%	32.8%	27.0%	27.5%	24.1%	22.3%	22.9%	21.2%
\$50,000 To \$99,999	29.1%	36.0%	40.2%	36.7%	36.0%	34.8%	34.6%	32.8%
≥ \$100,000	15.4%	13.8%	13.2%	15.4%	23.4%	27.2%	26.5%	31.0%
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA				
Total Families	-33.7%	-8.2%	-2.2%	1.8%				
≤ \$24,999	-28.3%	-4.1%	-6.9%	-4.6%				
\$25,000 To \$49,999	-44.6%	-6.5%	-9.5%	-6.0%				
\$50,000 To \$99,999	-18.1%	-16.0%	-5.5%	-3.6%				
≥ \$100,000	-40.9%	7.1%	1380.0%	19.4%				
Sources: U.S. Census Bureau: American Community Survey								

Chart 3 – Employment Characteristics

TRANSPORTATION TO WORK 2016	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Workers 16 Years And Over	262	208	15,423	15,013	4,255,557	4,356,501	139,255,035	145,861,221
Public Transportation (Excl	7	-	320	110	53,244	61,812	6,872,730	7,476,312
Walked	-	2	822	837	96,839	95,720	3,962,070	4,030,730
Other Means	6	12	208	196	48,875	55,988	2,401,488	2,655,046
Worked At Home	2	10	582	517	148,685	160,030	5,759,724	6,661,892
Car, Truck, or van - drove a	207	163	11,516	11,533	3,527,070	3,594,640	105,840,717	111,448,640
Car, Truck, or van - carpool	40	21	1,975	1,820	380,844	385,311	14,418,306	13,588,601
Sources: U.S. Census Bureau: American Community Survey								
% Of Total Population	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Public Transportation (Excl	2.7%	0.0%	2.1%	0.7%	2.3%	1.4%	2.8%	5.1%
Walked	0.0%	1.0%	5.3%	5.6%	0.4%	2.2%	0.5%	2.8%
Other Means	2.3%	5.8%	1.3%	1.3%	0.7%	1.3%	1.2%	1.8%
Worked At Home	0.8%	4.8%	3.8%	3.4%	3.5%	3.7%	4.1%	4.6%
Car, Truck, or van - drove a	79.0%	78.4%	74.7%	76.8%	82.9%	82.5%	76.0%	76.4%
Car, Truck, or van - carpool	15.3%	10.1%	12.8%	12.1%	8.9%	8.8%	10.4%	9.3%
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	USA	MI				
Workers 16 Years And Over	-20.6%	-2.7%	4.7%	2.4%				
Public Transportation (Excl	-100.0%	-65.6%	8.8%	16.1%				
Walked	200.0%	1.8%	1.7%	-1.2%				
Other Means	100.0%	-5.8%	10.6%	14.6%				
Worked At Home	400.0%	-11.2%	15.7%	7.6%				
Car, Truck, or van - drove a	-21.3%	0.1%	5.3%	1.9%				
Car, Truck, or van - carpool	-47.5%	-7.8%	-5.8%	1.2%				
Sources: U.S. Census Bureau: American Community Survey								
PLACE OF WORK 2016	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Workers 16 Years & Over	262	208	15,423	15,013	4,356,501	4,279,616	139,255,035	145,861,221
Worked In State Of Reside	242	195	15,284	14,844	4,274,711	4,198,303	133,963,344	140,392,299
Worked In County Of Res	239	187	14,405	14,098	3,026,827	2,970,054	101,099,155	105,598,812
Worked Outside County (	4	8	879	746	1,247,884	1,228,250	32,864,188	34,793,487
Worked Outside State Of R	20	13	139	169	81,790	81,313	5,291,691	5,468,922
Sources: U.S. Census Bureau: American Community Survey								
% Of All Workers 16 Years & Over	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Worked In State Of Reside	100.0%	93.8%	99.1%	98.9%	98.0%	98.1%	96.2%	96.3%
Worked In County Of Res	96.2%	89.9%	93.4%	93.9%	69.7%	69.4%	72.6%	72.4%
Worked Outside County (	3.8%	3.8%	5.7%	5.0%	28.3%	28.7%	23.6%	23.9%
Worked Outside State Of R	0.0%	6.3%	0.9%	1.1%	2.0%	1.9%	3.8%	3.7%
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA				
Workers 16 Years & Over	-20.6%	-2.7%	-1.8%	4.7%				
Worked In State Of Reside	-19.4%	-2.9%	-1.8%	4.8%				
Worked In County Of Res	-21.8%	-2.1%	-1.9%	4.5%				
Worked Outside County (	100.0%	-15.1%	-1.6%	5.9%				
Worked Outside State Of R	-35.0%	21.8%	-60.0%	3.3%				
Sources: U.S. Census Bureau: American Community Survey								

MEDIAN EARNINGS BY EDUCATION LEVEL - 2016	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Population 25 Years & Over	\$ 28,676	\$ 32,188	\$ 26,604	\$ 26,178	\$ 33,403	\$ 35,243	\$ 34,665	\$ 36,810
Less Than High School Grad	\$ 36,042	\$ 55,500	\$ 15,897	\$ 16,175	\$ 18,007	\$ 19,288	\$ 19,492	\$ 20,924
High School Graduate (Incl	\$ 27,386	ND	\$ 22,248	\$ 20,083	\$ 25,862	\$ 26,762	\$ 27,281	\$ 28,672
Some College Or Associate	\$ 14,583	\$ 26,705	\$ 26,368	\$ 25,990	\$ 31,952	\$ 31,801	\$ 33,593	\$ 34,412
Bachelor's Degree	\$ 49,583	\$ 46,250	\$ 39,026	\$ 39,405	\$ 47,924	\$ 49,711	\$ 48,485	\$ 51,094
Graduate Or Professional L	\$ 93,438	ND	\$ 61,028	\$ 51,739	\$ 66,034	\$ 67,420	\$ 63,612	\$ 67,832
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA				
Population 25 Years & Over	12.2%	-1.6%	5.5%	6.2%				
Less Than High School Grad	54.0%	1.7%	7.1%	7.3%				
High School Graduate (Incl	ND	-9.7%	3.5%	5.1%				
Some College Or Associate	83.1%	-1.4%	-0.5%	2.4%				
Bachelor's Degree	-6.7%	1.0%	3.7%	5.4%				
Graduate Or Professional L	ND	-15.2%	2.1%	6.6%				
Sources: U.S. Census Bureau: American Community Survey								
% Of All Full-Time, Year- Round Workers With	Sugar Island Twp.		Chippewa Co.		Michigan		United States	
	2010	2016	2010	2016	2010	2016	2010	2016
Full-Time, Year-Round Work	166	249	9,513	9,702	2,774,097	2,942,259	97,543,592	104,079,627
≤ \$24,999	18.7%	16.1%	27.9%	27.0%	19.9%	19.0%	21.9%	19.5%
\$25,000 To \$49,999	52.4%	40.3%	43.2%	41.5%	38.4%	36.6%	38.8%	36.3%
\$50,000 To \$74,999	15.0%	25.5%	19.6%	20.1%	22.6%	22.5%	20.3%	21.4%
\$75,000 To \$99,999	6.6%	10.1%	4.5%	7.2%	9.9%	10.3%	8.8%	9.7%
≥ \$100,000	7.2%	8.1%	4.8%	4.2%	9.2%	11.5%	10.3%	13.2%
Sources: U.S. Census Bureau: American Community Survey								
% CHANGE 2010-2016	Sugar Island Twp.	Chippewa Co.	MI	USA				
Full-Time, Year-Round Work	50.0%	2.0%	6.1%	6.7%				
≤ \$24,999	-13.9%	-3.4%	-4.5%	-10.9%				
\$25,000 To \$49,999	-23.1%	-4.0%	-4.7%	-6.3%				
\$50,000 To \$74,999	70.0%	2.8%	-0.4%	5.5%				
\$75,000 To \$99,999	53.0%	60.3%	4.0%	10.3%				
≥ \$100,000	12.5%	-12.3%	25.0%	28.3%				
Sources: U.S. Census Bureau: American Community Survey								

Chart 4: Employment Characteristics

[illegible]

EMPLOYMENT BY CLASS 2016	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Civilian Employed Population 16 Years & Over	266	213	15,605	15,108	22,599	21,647	4,369,785	4,449,717	141,833,331	148,001,326
Private Wage And Salary Workers	200	135	9,531	9,791	14,210	14,326	3,593,359	3,739,966	111,303,933	118,121,482
Government Workers	54	68	5,199	4,287	6,909	5,787	530,927	480,977	21,024,265	20,773,653
Self-Employed In Own Not Incorporated Business Workers	12	8	842	997	1,425	1,491	237,234	221,232	9,250,789	8,868,069
Unpaid Family Workers	0	2	33	33	55	43	8,265	7,542	254,344	238,122
Sources: U.S. Census Bureau: American Community Survey										
% Of All Civilian Employed Population 16 Years & Over	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Private Wage And Salary Workers	75.2%	63.4%	61.1%	64.8%	62.9%	66.2%	82.2%	84.0%	78.5%	79.8%
Government Workers	20.3%	31.9%	33.3%	28.4%	30.6%	26.7%	12.1%	10.8%	14.8%	14.0%
Self-Employed In Own Not Incorporated Business Workers	4.5%	3.8%	5.4%	6.6%	6.3%	6.9%	5.4%	5.0%	6.5%	6.0%
Unpaid Family Workers	0.0%	0.9%	0.2%	20.0%	0.2%	0.2%	0.2%	20.0%	0.2%	20.0%
Sources: U.S. Census Bureau: American Community Survey										
% CHANGE 2010-2016	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
Civilian Employed Population 16 Years & Over	0.3%	-3.2%	-4.2%	1.8%	4.3%					
Private Wage And Salary Workers	0.3%	2.7%	0.8%	4.1%	6.1%					
Government Workers	2.3%	-17.5%	-16.2%	-9.4%	-1.2%					
Self-Employed In Own Not Incorporated Business Workers	5.6%	18.4%	4.6%	-6.7%	-4.1%					
Unpaid Family Workers	--	0.0%	-21.8%	-8.7%	-6.4%					
Sources: U.S. Census Bureau: American Community Survey										
TRAVEL TIME TO WORK	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Mean Travel Time To Work (Minutes)	29.8	34.8	16.0	16.8	16.6	17.5	23.7	24.3	25.2	26.1
Sources: American Community Survey										
% CHANGE 2010-2016	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
Mean Travel Time To Work (Minutes)	16.8%	5.0%	5.4%	5.0%	2.5%	0.4%				
Sources: U.S. Census Bureau: American Community Survey										
COUNTY GROSS DOMESTIC PRODUCT	2016									
Chippewa Co.	\$1.2 billion									
Luce Co.	\$159.4 million									
Mackinac Co.	\$336.0 million									
Sources: National Associations of Counties Analysis of Moody's Analytics data, 2016										
LABOR FORCE 2016	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Population 16 Years & Over	702	566	32,338	31,992	47,438	46,920	7,836,314	7,953,581	238,733,844	253,323,709
In Labor Force	321	244	17,886	16,986	25,858	24,438	4,944,003	4,866,369	155,163,977	160,818,740
Civilian Labor Force	321	244	17,719	16,802	25,691	24,225	4,938,337	4,862,651	154,037,474	159,807,099
Employed	266	213	15,605	15,108	22,599	21,647	4,369,785	4,449,717	141,833,331	148,001,326
Unemployed	55	31	2,114	1,694	3,092	2,477	568,552	412,934	12,204,143	11,805,773
Armed Forces	-	-	167	184	167	213	5,666	3,718	1,126,503	1,011,641
Not In Labor Force	381	322	14,452	15,006	21,580	21,580	2,892,311	3,087,212	83,569,867	92,504,969
Sources: U.S. Census Bureau: American Community Survey										
% Of The Population 16 Years & Over	Sugar Island Twp.		Chippewa Co.		EUP		MI		USA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
In Labor Force	45.7%	43.1%	55.3%	53.1%	54.5%	52.1%	63.1%	61.2%	65.0%	63.5%
Civilian Labor Force	45.7%	43.1%	54.8%	52.5%	54.2%	51.6%	63.0%	61.1%	64.5%	63.1%
Employed	82.9%	87.3%	88.1%	88.9%	88.0%	88.6%	88.5%	91.4%	92.1%	92.6%
Unemployed	17.1%	12.7%	11.9%	10.1%	12.0%	10.2%	11.5%	8.5%	7.9%	7.4%
Armed Forces	0.0%	0.0%	0.5%	0.6%	0.4%	0.9%	0.1%	0.1%	0.5%	0.6%
Not In Labor Force	54.3%	56.9%	44.7%	46.9%	45.5%	46.0%	36.9%	38.8%	35.0%	36.5%
Sources: U.S. Census Bureau: American Community Survey										