

STANDISH TOWNSHIP PLANNING COMMISSION

**STANDISH TOWNSHIP
MASTER PLAN
FOR
LAND USE**

**GOALS AND OBJECTIVES FOR GROWTH
MANAGEMENT**

December 7, 2015

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STANDISH TOWNSHIP PLANNING COMMISSION

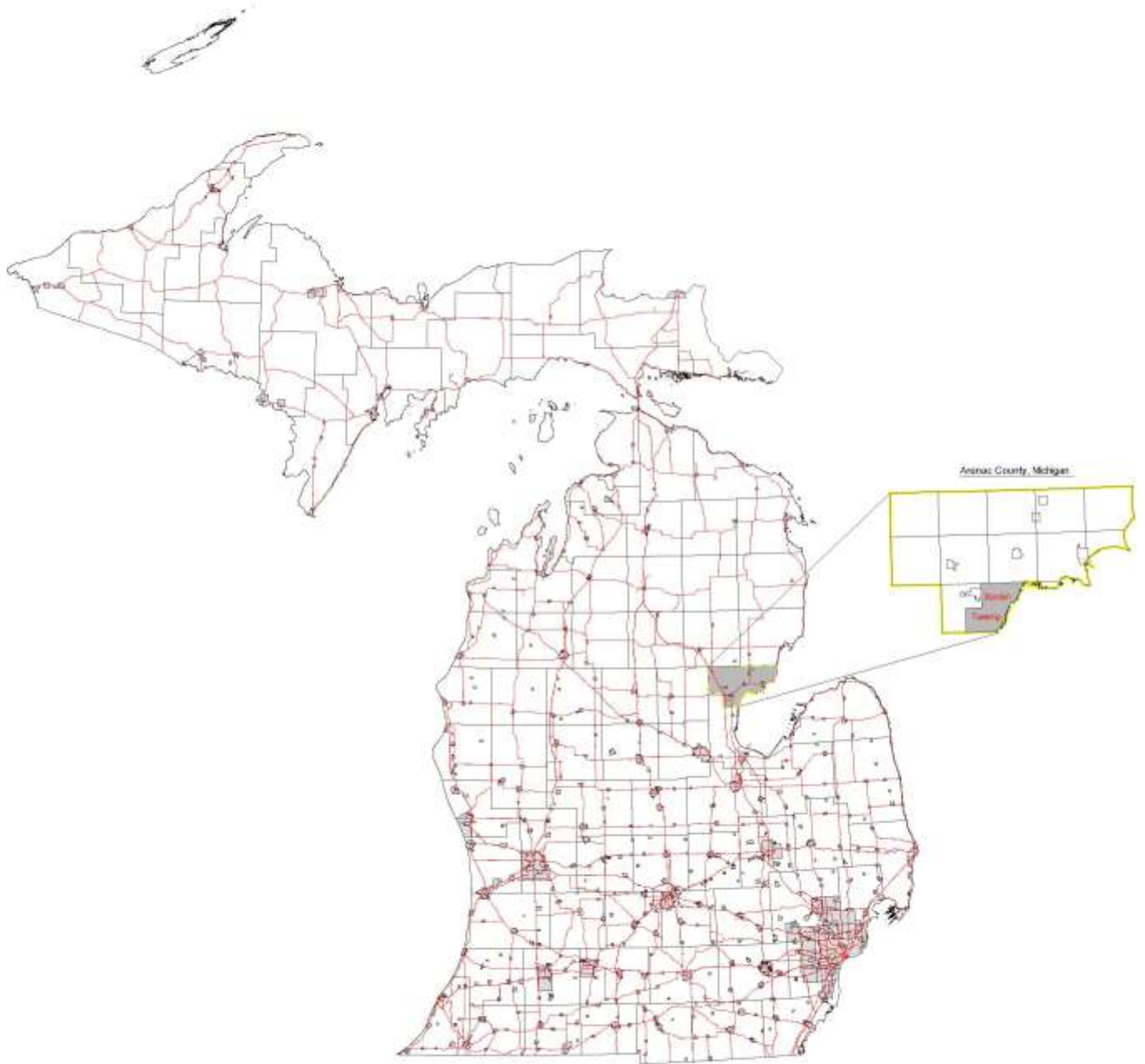
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SECTION ONE

Introduction

Standish Township has been a place known for its agriculture and exceptional natural resources, especially those associated with the Saginaw Bay where it has 37 miles of shoreline. Land uses planned for by the township reflect the values associated with these assets. Much of the township was deemed appropriate for agriculture, forest preservation, residential housing and limited commercial activities.

The opening of the Saganing Eagles Casino in 2007 changed this rural pattern to one of great commercial and tourist activity. The Saganing Chippewa Indian Tribe now controls over 350 acres of Standish Township land, primarily in the southeast of the township.

The township is also situated not far from the employment and commercial areas of the City of Standish and the Tri Cities--Saginaw, Bay City and Midland--where local residents work, shop, and can find other needed services.

With success of the casino, the Tribe now plans to build a 148-room hotel with a restaurant and an additional 400 slot machines. Numerous other businesses catering to the patrons of the casino are also being established.

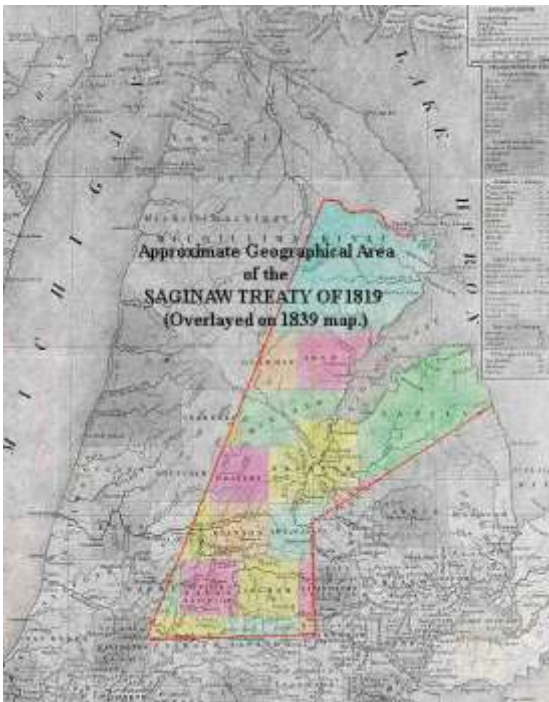
The magnitude of the existing and proposed development by the tribe has been assessed as well as future land uses and development patterns for the township. This plan sets out the vision for Standish Township for the next five years.

SECTION TWO

SECTION TWO BACKGROUND

A. Regional History

The history of Standish Township is tied to the uses of the land. The bounty of wildlife in the region provided a source of food for Native Americans before the arrival of Europeans and was what attracted the French in the 17th century, then the British in the 18th century to the area. The area became part of the United States of America, the Northwest Territory, after the American Revolutionary War in 1787. The British retook control of the area and little settlement of Europeans took place until the 1800's.



The earliest Europeans were traders, clergymen, and soldiers. The heavy influx of settlers began after the Erie Canal

opened in 1825 making migration by the Great Lakes as easy, or easier than, the Ohio River route which had led to the settlement of the lower Midwest much sooner than Michigan. This new migration from the northeast is evident by the numbers of New Englanders and New Yorkers who were the early settlers of the area.

Prior to 1830, Arenac County was under control of the Chippewa and Ojibway Indians. The land was laid out as a county but was incorporated with Bay County in 1857.

Arenac County (originally a part of Saginaw, Midland and Bay Counties) was organized in 1883 during the timber boom, which lasted through the last half of the 19th century. The Saginaw Bay watershed includes approximately 865 miles of rivers, which were used to float "white gold" (white pine logs) to sawmills in Saginaw. There they were milled into lumber and shipped on to the burgeoning East and Midwest. From 1851 to 1897, the Saginaw River floated 25 billion board feet of lumber in pine logs, enough to build one million medium-sized homes or pave a road ninety feet wide all the way to the moon. Michigan's "green rush" was worth a billion dollars more than California's "gold rush".

The Graduation Act of 1854, the Homestead Act of 1862, and the new railroads, which usually received six miles either side of their tracks as an incentive to construct the railroad systems, conjoined to bring waves of would-be farmers into the region. Railroad promoters even maintained an agent in Germany to promote land sales. Unfarmable, cut over

lands went ultimately into tree farms, hunting and fishing businesses, or back to the State for non-payment of taxes. Dozens of once thriving timber towns became ghost towns throughout the region.

Early Settlers of Standish

The earliest settlers in the area now known as Standish Township were Native Americans. Saganing was one of the first settlements in the area with many Indian families residing there. The Methodist Church established the Township's first church at the Indian Mission in Saganing in 1846. A new church was built in 1874 and still stands today on the Saganing Reservation. The Indians of the area would gather for camp meetings. At these meetings there would be preaching, singing and Indian dances. As white settlers moved in, these Indians began working for the settlers in the fields and picking berries.



The earliest white settlement of the township was the first water-powered sawmill in Central Michigan located on the Pine River near where the Pine River Cemetery is today. It was the first permanent white settlement, and was made at Pine River in 1854 by John Lentz. Mr.

Lentz built a sawmill capable of producing 3,000,000 feet of lumber per day. This community reached a population of several hundred people and boasted of having two general stores as well as a grocery store, hotel, saloon, livery, blacksmith, feed mill and elevator. Population dwindled off through the turn of the century, in 1910 the population was 31 and by World War I no population was given on the official census.



D & M Depot at Pine River

The first school in the township was on the Saganing Indian Reservation and it was started sometime during the Civil War. By 1868 a new brick school was built for whites and Indians at Old State Road and Saganing. During the 1850's the construction of AuSable State Road through the township brought many workers to the area. During that time there were post offices at Saganing, Hor (a place that existed near Pine River), and Arenac. Most settlers at this time settled near Pine River.

Peter Angus was Standish Township's first supervisor in 1873 when Standish Township was separated from Arenac Township. Then in 1883 the Michigan legislation passed a bill creating Arenac County separating Standish Township from Bay County. This action was severely debated and Bay County took the

matter to the Supreme Court of Michigan on the basis that the new county did not have the statutory 16 townships. The Supreme Court upheld the previous rulings that the 12 surveyed townships were within the spirit of the constitution.

In 1918 the land known as White's Beach was platted and developed by Charles and Mary White. This area was developed with roads and alleys as well as a beach. Mr. White was a fisherman who spent summers there and winters in Pinconning. Mr. White built a dance hall that extended over the water and was widely known for years. In 1940, the old buildings were torn down and the new tavern was built.



Development of the City of Standish began in the late 1800's as the Lansing, Jackson and Saginaw Railroad constructed a new line that ran from Bay City north to Wells. Prior to the railroad people would ride stagecoach or travel by boat to Pine River then west to the Standish settlement. In 1871 a depot were constructed and the lands around the depot and railroad tracks was platted by Mr. John D. Standish, a Detroit businessman. This area is currently known as the City of Standish.

The first industry to the area was a sawmill built and operated by Mr. Standish. Also in 1871 the first hotel was

built in the area by Sheriff Burmel of Bay City and was named the Standish House.

Standish was incorporated as a village in 1893 with Mr. James E. Austin as its first president. In 1880 The Arenac County Independent became the first newspaper in the area and is still in existence today. In 1885 as many as eight passenger trains ran through Standish every day. In 1903 Standish was incorporated into a city and Mr. H. Randall was elected its first mayor.

As the City of Standish began to flourish, the surrounding areas began to develop as well. In 1911 the first telephone lines were laid in the area and in 1912 the first commercial electric lights were brought to the area. In 1913 a new parcel post system opened in Standish. In 1916 the Temple Theater opened which seated 240 people. In 1947 a municipal sanitary sewer plant was placed into operation.



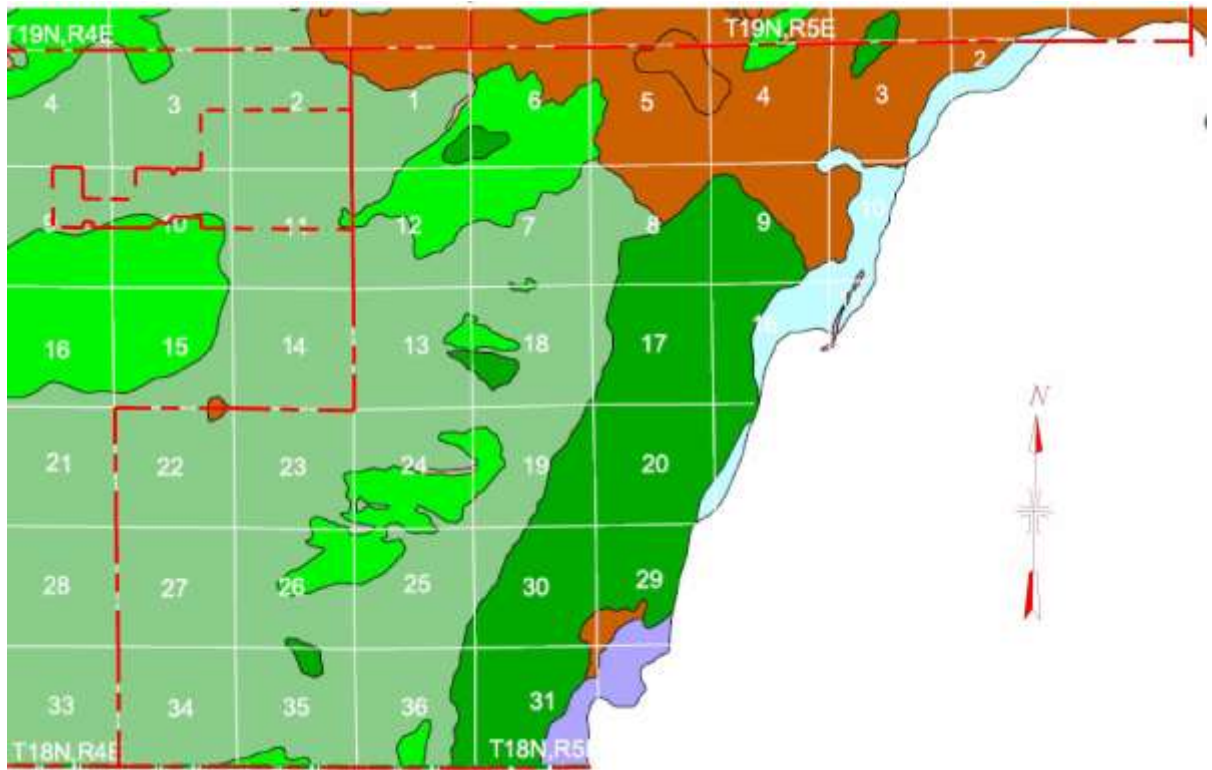
Various agricultural crops have predominated in Arenac County over the years from wild cranberries harvested by the Chippewas to huckleberries through the mid-1800's, to chicory in the 1910's. Dry beans were introduced after the Civil War and sugar beets in the 1890's and

corn, as its productivity increased, became a major crop in the 20th century.

Recent Past & Present

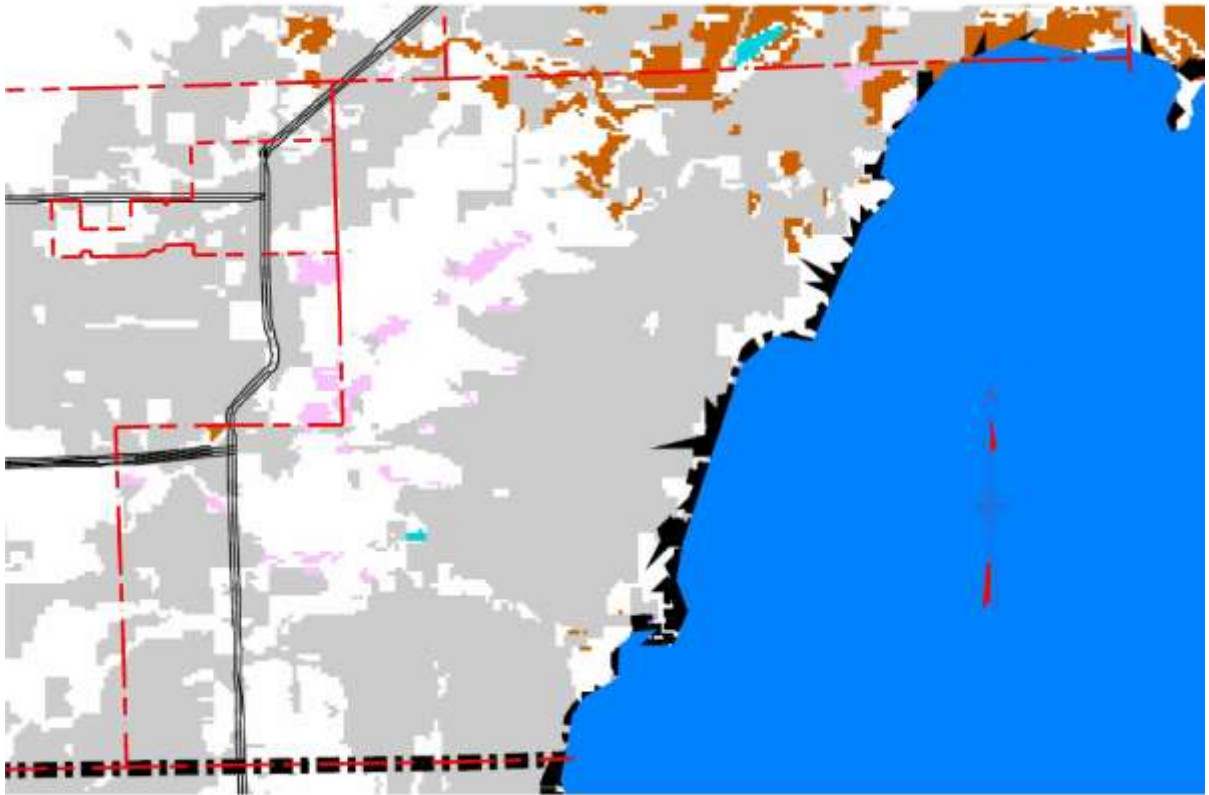
After the lumber boom peaked in the 1880's, fortunes declined. Although the introduction of electricity in the early 1900's brought many new businesses to the area, farming was still important with a significant portion of the township land devoted to agriculture.

The lack of employment opportunities within Standish Township has caused many residents to commute or even relocate to areas that have a higher employee demand. However, with the opening of the Saginaw Chippewa Indian tribe's Saganing Eagles Landing Casino, jobs and entrepreneurial opportunities have now become available and will continue into the foreseeable future. The increase in seasonal homes and permanent homes for retirees in the area that caused Standish Township to grow as a rural residential community may now change to more establishments and activities oriented toward the casino and its patrons. The bounty of forests, creeks, farmlands, and bay shores still can provide existing and prospective residents a pleasant environment; but Standish Township has been dramatically affected by the tribe's developments and plans for additional ones.



- BEECH-SUGAR MAPLE-HEMLOCK FOREST
- CEDAR SWAMP
- MIXED HARDWOOD SWAMP
- SHRUB SWAMP/EMERGENT MARSH
- WET PRAIRIE
- WHITE PINE-RED PINE FOREST

Standish Township Vegetation circa 1800



- Lowland Conifer Unchanged
- Lowland Deciduous Unchanged
- Emergent Wetland Unchanged
- Changed to Aspen
- Changed to Urban or Agriculture
- Other Change

Standish Township Land Cover Change, 1800's to 1978

B. Geography

General Geography

Standish Township (T18N, R4&5E) is one of twelve townships located in Arenac County. It is nestled between Lincoln Township and the City of Standish to the west and Saginaw Bay on the east, and Bay County to the South with Arenac Township located to the north. The township comprises approximately 30.5 square miles of land.

The terrain of the township is nearly level with exception of depressions along the banks of the Pine River and its tributaries. The majority of the land is cultivated and artificially drained because of the flat terrain.

Several Rivers flow through Standish Township. The North and South Branches of the Pine River converge at Pine River in the northeastern part of the township. The Saganing River also traverses the southern portion of the township discharging to the Saginaw Bay south of Whites Beach.

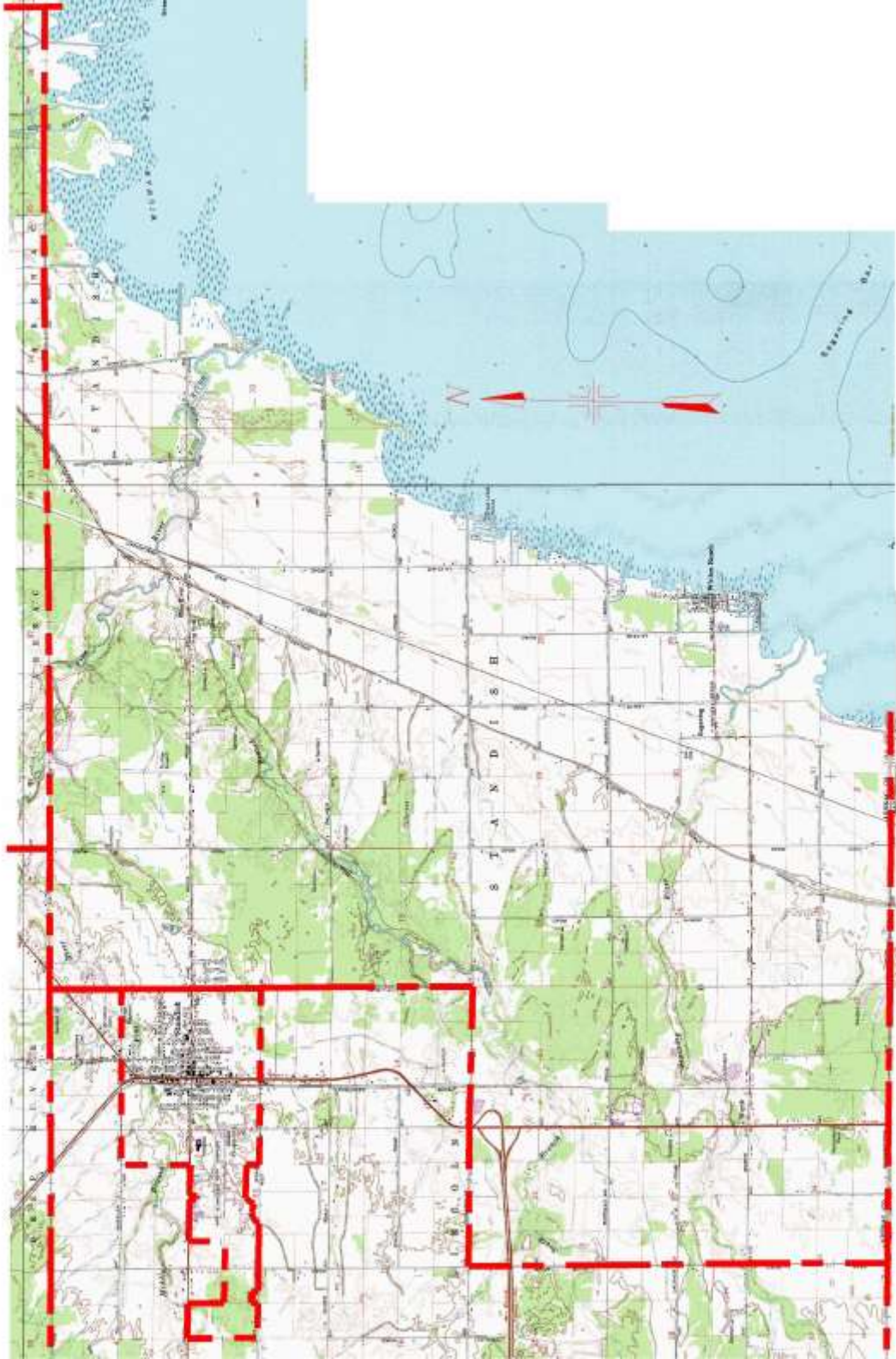
The highest point of the Township is located on the northerly side near the City of Standish with an elevation of around 625 feet above sea level. Most of the plains area used for farming range from 605 to 585. The lowest is along the east and south side of the township along the

Saginaw Bay shoreline with an elevation of 580.

The Township is partially forested which is utilized as woodlands. The remainder of the township is agricultural which is primarily from the center of the township running east across the township. Some areas of forested and scrub-shrub wetlands exist throughout the township with emergent wetlands located along the shoreline of the Saginaw Bay.

Standish Township's climate results from its location on the Saginaw Bay and Lake Huron. Being close to the Saginaw Bay and Lake Huron influences, temperatures vary more and precipitation and snowfall are very dependent upon the wind direction. The average growing season for the area is approximately 127 days. The average annual rainfall is approximately 29.04 inches. The mean daily maximum and minimum temperatures in January are 30°F and 14°F and in July 83°F and 57°F. Snowfall is usually less than 43 inches per year.

The Saginaw Bay is very shallow off the Standish Township coastline reaching water depths of no more than 15 deep out to more than three miles offshore. Typical water depths are around 5 feet at one mile offshore with the exception of the Saganing Bar, which extends almost five miles into the bay. Water Depths in Wigwam Bay are typically two feet deep for miles offshore.



Quadrangle Map for Standish Township

Geology

The processes that gave rise to the land within the Township provided the elevations, shaped the contours, deposited the underground formations of various minerals including deep oil and gas deposits, and much shallower limestone and gypsum, carved the river valleys, and laid down the parent materials for the soils. The upper soils are mostly sands as evidenced by the sand pits can be found throughout the township.

Bedrock Geology

The bedrock geology of Standish Township is that of the Michigan Basin: sedimentary rock of limestone, dolomite, shale, and sandstone laid down in ancient seas of the Paleozoic Age up to 500 million years ago. Above these sedimentary rock formations is a layer of glacial drift material in varying thickness deposited during the late Pleistocene period.



Surface Geology

The surface geology of Standish Township is glacial in origin. As the last glacier receded, the melting ice flowed toward what is now the Saginaw Bay. As the melt waters ran downhill, valleys were cut forming the now present streams and their

tributaries. The variability of the streams and tributaries in the lengths and direction of flow can be contributed to the randomly located and irregularly piled glacial deposits. The deposited materials formed the end moraines of fine textured till located in the northeast to central parts of the Township, which contain the fertile soils on which agriculture takes place.

The quarternary geology of Standish Township consists of Lacustrine clay and silt along the shoreline of the Saginaw Bay. Most of the remainder of the township is Lacustrine sand and gravel. A small strip of dune sand is located in the middle of the township and a small area of end moraines of fine textured till is found in the southern part of the township.

Soils Overview

Standish Township's topography and soils were formed by glacier deposits and erosion from over 10,000 years ago. Standish Township consists of only three primary soils associations. All of these associations are nearly level, poorly drained soils that formed in clay, silty clay or deep sand.

The most prevalent soils association with the township is the Wisner-Sims Association. These soils are found both along the shoreline of the Saginaw Bay and along the western side of the township on the westerly side of M-13. The soils found in this association are mainly Wisner and Sims. However, minor areas of Iosco Loamy Sand and Kawkawlin Loam are located throughout this association within the township. These soils can be productive for most all crops when drainage is provided.

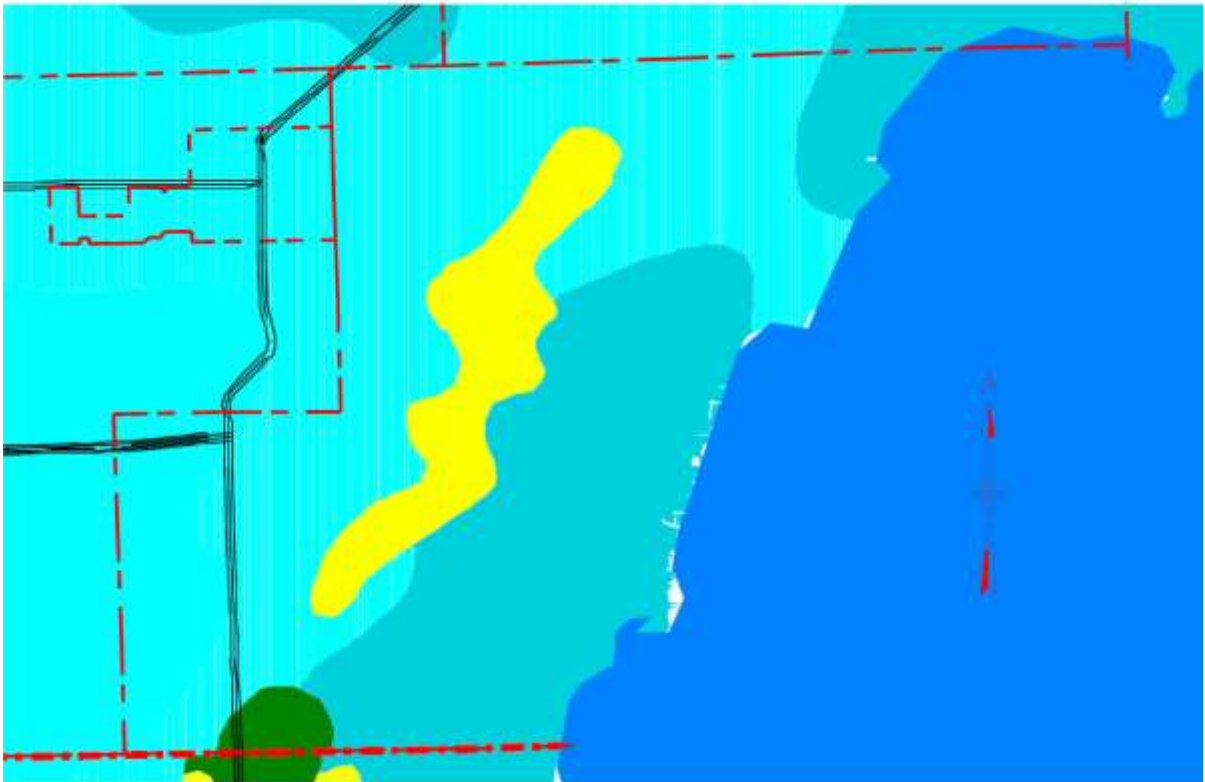
Roscommon –AuGres Association is the next most prevalent soils association that is located in the township. This association is located running north south through the middle of the township from west of Pine River south to Worth. These soils are found mostly on outwash plains and consist primarily of Roscommon and AuGres sands. These soils formed in sand under the influence of high or fluctuating water table, which makes them slightly acidic. Small pockets of Twining-Belding sandy loam are located in the southern part of the township in the association as well as pockets of Sims clay loam. This soil association is not well suited for farming because of the poor drainage and higher acid levels.

The final soils association found in the township is the Allendale-Pinconning-Pickford soils association. This association is found northeast of the City of Standish in the northwest part of Section 1. These soils formed in clay

under the influence of a high water table. This area of the township also contains pockets of AuGres sand. This soil association is typically moderate for farming.

A considerable part of the lakeshore is freshwater marsh. The soils in these submerged lands is a mixture of soil types caused either by the washing of soils into the lake from the land or washed onto shore by waves. Typically, these marshes consist of cattails and reeds and are not productive for farming or development.

Another soil feature found along the shoreline is Lake Beach, which consist of material recently deposited along low beach ridges. This soil consists of mostly coarse soils in thin layers of sand and gravel. These areas are not suitable for farming or forests but have been developed for recreational purposes.



- Dune Sand
- Lacustrine clay and silt
- Lacustrine sand and gravel
- End moraines of fine-textured till

Standish Township Quaternary Geological Map

Hydrology

The streams, creeks, and tributaries flowing across the Township provide an abundant supply of fresh water to help recharge the underground aquifer with clean water. The streams that traverse the Township include the Saganing Creek, and the North, Middle and South branches of the Pine River. The Township has limited access to municipal water supply therefore, most residents and businesses use individual wells to supply water. The

entire township falls in the Kawkawlin-Pine Watershed.

The water table in Standish is very near the surface of the land in most of the township. However, yield from wells is generally low in the township, and water from these wells can be hard requiring the use of water softeners.

Wetlands are found throughout the Township (see National Wetland Inventory map). National Wetland

Inventory Maps are general maps used to provide information on the potential location of wetlands based on soils, topography, and other available data. The United States Fish and Wildlife Service prepared these maps through interpretation of topographic data and aerial photographs. This inventory map may indicate wetlands that are not actually present or it may not show wetlands that are present. According to the National Wetlands Inventory maps, wetlands in the Township range in size from very small isolated pockets smaller than an automobile to larger areas of several acres. These inventories are intended to be used as a planning tool for development, open space designations, zoning, and other planning purposes. Wetlands protection in Michigan is regulated under Part 303, Wetlands Protection, of the Natural Resources and Environmental protection Act of 1994, P.A. 451. Only with an on-site evaluation done by either the Michigan Department of Environmental Quality (MDEQ) or a qualified private consultant and verified by the MDEQ can the determination of the boundaries and regulatory status of wetlands be made.

A variety of wetland types are scattered throughout the entire township and mostly fall within the ravines around the Pine River and its branches and the Saganing Creek. Larger concentrations of forested wetlands are mostly found in the northerly portion of the township with some areas found in the center of the township. Scrub-shrub wetlands are the most prevalent wetland type in the township, and those features are primarily found in the northerly and central parts of the township. Small emergent wetland features are located within the township again primarily in the northerly one-half of the

township and along the shoreline of the Saginaw Bay. These wetland features exist in low-lying areas where runoff from surface water and shallow ground water deposits remain present during portions of the growing season.

Wetlands can provide a variety of functions including sedimentation and pollution control, surface water filtration, storm-water storage and flood control, wildlife habitat, and aesthetics. The habitat within these wetlands varies from emergent vegetation such as cattail, sedges, and various wildflowers to scrub shrub to forested wetlands containing species including, but not limited to, dogwood, tag alder, cedar, silver maple, and cottonwood and green ash.

Standish Township also participates in the FEMA Flood Insurance Program. FEMA conducts a Flood Insurance Study (FIS) of a region to identify the community's risk levels. The FIS includes statistical data for river flow, storm tides, rainfall and topographic surveys, as well as hydrologic and hydraulic analyses. After examining the FIS data, FEMA creates a map delineating the different areas of flood risk. Each community that chooses to participate in the NFIP works closely with the Federal Emergency Management Agency (FEMA). Together, they collect the information needed to create an accurate Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) of the region. The FIRM and FIS will later be used to determine flood insurance rates for homeowners and for floodplain management.

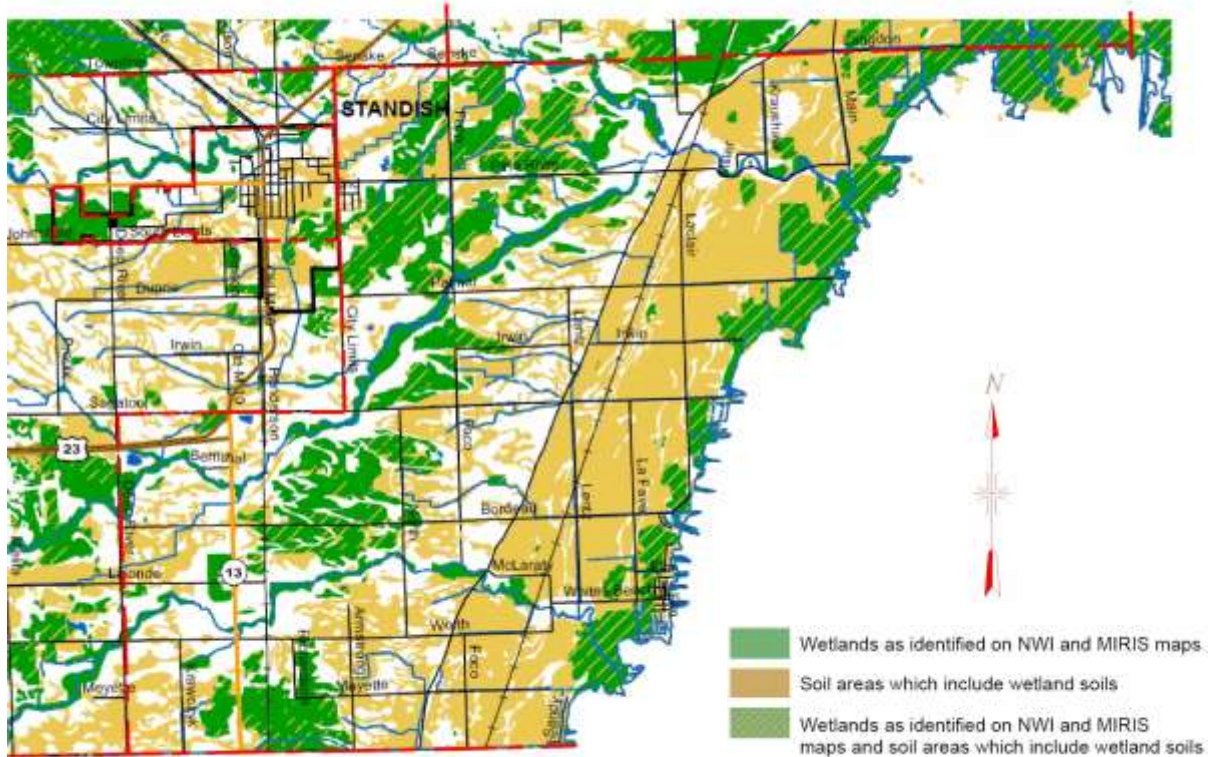
Flood zones are land areas identified by the Federal Emergency Management Agency (FEMA). Each flood zone

describes that land area in terms of its risk of flooding. These areas are shown on Flood Insurance Maps or a FIRM. A FIRM will generally show a community's base flood elevations, flood zones, and floodplain boundaries.

The primary areas of floodzones in Standish Township lies along the shoreline of the Saginaw Bay. However, other areas are mapped along the Pine River and its branches and the Saganing Creek.



FEMA Flood Insurance Rate Map of Standish Township.
Shaded areas represent floodzones. Effective Date March 16, 2015



Standish Township National Wetland Inventory

Natural Resources

Fauna and Flora

Standish Township contains a rich variety of natural resources and habitat types. The habitats include Mesic Northern Forest and Dry Mesic Northern Forests that are pine or pine-hardwood dominated communities often found on glacial lake plains and inland dune ridges. Additionally, forested and scrub shrub uplands, riverine valleys, floodplain forests, swamps, emergent and scrub shrub wetlands, open agricultural fields currently in production and some which have been left fallow, and small wood lots can be found interspersed within the township.

The Pine River and its many tributaries flow through the township as well as the Saginaw Creek. These watercourses contain catfish, walleye and other various species of pan fish, giving anglers a chance to try their skills. The coastal waters of the Saginaw Bay also contains a variety of species including Large Mouth Bass, Yellow Perch, Crappie, Sunfish, Walleye, Northern Pike, and Channel Catfish. The deeper waters of the Saginaw Bay contain other species such as Chinook, Coho and Steelhead Salmon. There are also a few small, private inland ponds in the township that contain a variety of fish species.

The abundant wildlife, which relies on these varied habitats, provides recreational opportunities not only for the residents of the Township, but also for the many visitors to the area. Large and small game hunting for species including white-tail deer, rabbits, squirrels, ruffed grouse, waterfowl and wild turkey, is an activity enjoyed by many. Bird watching and wildlife observation, which have become another preferred recreational activity not only in Michigan but in most other parts of the country as well, afford the participants great viewing opportunities in the Standish Township area due to the variety of available habitats and accessible lands. Wildlife including deer, fox, coyote, muskrat, and occasionally beaver, utilize the varied habitats during their life cycles including breeding, nesting, and raising young. A variety of smaller animals, reptiles, amphibians, bird species including neotropical migrants, waterfowl, and birds of prey also live and thrive in the area.

In addition to the many forms of wildlife including mammals, reptiles, amphibians, birds, insects, aquatic species, trees and flowers normally observed, there are some species which are not as readily visible. This is due in part to the rarity of the species, the preference for isolation and solitude, or requirements for areas of undisturbed habitat. A few species of wildlife listed as threatened, endangered, or special concern under federal and or state law have been identified as having occurred within portions of Standish Township. The federally enacted Endangered Species Act of 1973, and/or Part 365, Endangered Species Protection of the Michigan Natural Resources and Environmental Protection Act, Public Act

451 of 1994, as amended, provides protection for these special resources.

Several species of interest have been documented in the township or nearby. The Bald Eagle (*Haliaeetus leucocephalus*) a State of Michigan threatened species has been documented in the area. Also, the Forster's Tern (*Sterna Forsteri*), Black Tern (*Chlidonias Niger*), and American Bittern (*Botaurus Lentiginosus*) are Michigan Special Concern species that have been documented. And lastly, the Slough Grass (*Beckmannia Syzigachne*) and False Hop Sedge (*Carex Lupuliformis*) are Michigan Threatened species that have been documented.

Other protected species that may have been seen in the township are Red-shouldered Hawk (*Buteo Lineatus*), March Wren (*Cistothorus Palustris*), Wood Turtle (*Clemmys insculpta*), Large Toothwort (*Dentaria Maxima*), Eastern Massasauga (*Sistrurus Catenatus Catenatus*), Great Blue Heron Rookery, and Black-crowned Night-heron (*Nycticorax nycticorax*).

The presence of threatened or endangered species does not preclude activities or development, but may require alterations to project plans. Other state statutes are in place to help protect and preserve the natural resources of the local communities, a few of which include wetlands, and inland lakes and streams protection.

There are a number of invasive species in the township. Below is a list of common invasive species and emerging threats listed by the Michigan Natural Resources and Environmental Protection Act (PA 451 of 1994).

Common Invasive Species and Emerging Threats

Trees	
Common Name	Scientific Name
Norway Maple	<i>Acer platanoides</i>
Tree of Heaven	<i>Ailanthus altissima</i>
Black Alder	<i>Alnus glutinosa</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Black Locust	<i>Robinia pseudoacacia</i>
Shrubs	
Common Name	Scientific Name
Japanese Barberry	<i>Berberis thunbergii</i>
Autumn Olive	<i>Elaeagnus umbellata</i>
Glossy Buckthorn	<i>Frangula alnus/Rhamnus frangula</i>
Privet	<i>Ligustrum vulgare</i>
Amur Honeysuckle	<i>Lonicera maackii</i>
Morrow's Honeysuckle	<i>Lonicera morrowii</i>
Tartarian Honeysuckle	<i>Lonicera tatarica</i>
Bell's Honeysuckle	<i>Lonicera xbella</i>
Common Buckthorn	<i>Rhamnus cathartica</i>
Black Jetbead	<i>Rhodotypos scandens</i>
Multiflora Rose	<i>Rosa multiflora</i>
Woody Vines	
Common Name	Scientific Name
Oriental Bittersweet	<i>Celastrus orbiculatus</i>
Japanese Honeysuckle	<i>Lonicera japonica</i>
Kudzu	<i>Pueraria lobate</i>
Herbaceous Plants	
Common Name	Scientific Name
Garlic Mustard	<i>Alliaria petiolate</i>
Narrow-leaved Bitter-cross	<i>Cardamine impatiens</i>
Spotted knapweed	<i>Centaurea stoebe/Centaurea maculosa</i>
Canada Thistle	<i>Cirsium arvense</i>
European Swamp Thistle	<i>Cirsium palustre</i>
Black Swallow-wort	<i>Cynanchum louiseae/Vincetoxicum nigrum</i>
Pale Swallow-wort	<i>Cynanchum rossicum/Vincetoxicum rossicum</i>
Leafy Spurge	<i>Euphorbia esula</i>
Baby's Breath	<i>Gypsophila paniculata</i>
Giant Hogweed	<i>Heracleum mantegazzianum</i>
Dame's Rocket	<i>Hesperis matronalis</i>
Lyme-grass	<i>Leymus arenarius</i>
Purple Loosestrife	<i>Lythrum salicaria</i>
White Sweet Clover	<i>Melilotus alba</i>

Yellow Sweet Clover	Melilotus officinalis
Japanese Stilt Grass	Microstegium viminium
Wild Parsnip	Pastinaca sativa
Reed Canarygrass	Phalaris arundinacea
Phragmites	Phragmites australis
Japanese Knotweed	Polygonum cuspidatum
Giant Knotweed	Polygonum sachalinense
Mile-a-minute weed	Polygonum perfoliatum
Narrow-leaved Cat-tail	Typha angustifolia
Aquatic Plants	
Common Name	Scientific Name
Flowering Rush	Butomus umbellatus
Water-hyacinth	Eichornia crassipes
Hydrilla	Hydrilla verticillata
European Frog-bit	Hydrocharis morsus-ranae
Eurasian Water Milfoil	Myriophyllum Spicatum
Curly Pondweed	Potamogeton crispus

The effects of invasive species on geosystems in the area, including the township, are habitat loss, additional risk to threatened and endangered species, and severe economic consequences. Loss of revenues to farmers and timber industries, increased costs for infrastructure maintenance, and reduced tourism are some common effects. There are some simple and direct effects to shore property owners, including the loss of lake views and the use of their beaches. Because low Great Lakes levels in past years, Phragmites australis, commonly called Phragmites, has become a severe problem along the Saginaw Bay coastline. The bay is very shallow along the coast, so as the lake waters have receded, large areas of unsubmerged land became exposed and Phragmites thrived all along the bay shoreline.

A number of organizations and agencies have taken on the challenge of invasive species. The Saginaw Bay Cooperative Invasive Species Management Area (SB-

CISMA) was formed to address invasive species management with non-native Phragmites as its first priority species. The partners of the cooperative are:
Midland Conservation District
Saginaw Bay RC&D
Iosco Conservation District
Saginaw Chippewa Indian Tribe
Genesee Conservation District
Saginaw Basin Land Conservancy
Other entities supporting the co-op are:
Shiawassee National Fish and Wildlife Refuge
Department of Natural Resources – Wildlife Division
Congressman Dan Kildee’s Office
Michigan Department of Transportation
Natural Resources Conservation Service
Michigan Invasive Species Information Network (MISIN)
Nayanquing Point State Wildlife Area
Michigan Department of Agriculture
Michigan State University Extension – Sea Grant
Because the Saginaw Bay is a part of federal waters (all of the Great Lakes),

there is U.S. Government scrutiny in addition to the Michigan Department of Natural Resources (DEQ) and other state agencies.

Management principles for invasive species are:

- Control projects are designed after serious consideration of a range of treatment options so that the control methods are the most effective and appropriate to a given situation.
- Projects include a vision and plan for desired future conditions after the weeds are gone.
- Education and outreach activities are targeted to specific audiences, with clearly defined desired behavioral changes.

The levels of management are:

- Eradicate: The weed species is eliminated from the management area, including all viable seeds and/or vegetative propagules.
- Control: Dispersal is prevented throughout the target patch and the area coverage of the weed is decreased over time. The weed is prevented from dominating the vegetation of the area but low levels are accepted.
- Contain: Weeds are geographically contained and are not increasing beyond the perimeter of the infestation. Treatment within established infestations may be limited, but areas outside are controlled or eradicated.
- Reduce: The density and/or rate of spread of the weed are reduced across a geographic area.
- Custodial: Specific treatment for a particular plant is deferred at this time.

Infestations may be treated as a result of other weed priorities. The species may not be inherently invasive, habitats are not susceptible to invasion, or the infestation is not treatable with current technology.

The Arenac County Conservation District has been actively addressing the Phragmites with funding from the United States Fish & Wildlife Division Resources problem for the last two years. A program of **control** of the species was begun at the Bay County line and has so far progressed north to the Eagles Landing Marine (~64 acres). The process includes ground spraying with glyphosate-based chemicals approved by the State of Michigan to kill the live plants, then to burn the dead plant material left to destroy seed heads and any other parts of the plants that might re-affect the shore.

The key to the program is landowner participation. The Department of Natural Resources has given the Saginaw Bay riparian landowners the right to manage the lake bottomlands in order to control Phragmites. It is important to have all landowners involved so that there are not pockets or areas that are left to re-affect treated areas. Landowners are also required to re-treat any small areas that regrow after treatment and burning. The program has been very successful so far and higher bay water levels have lessened areas for possible Phragmites growth.

The Conservation District has garnered a grant from the Michigan Department of Natural Resources to contain the control program north from the Eagles Landing Marine to the Wigwam Bay area. It will be attempting to continue the project even

further along the northern section of the Bay.

The Department of Natural Resources is also now treating its properties along the Saginaw Bay (the Wigwam Bay State Wildlife Area). The Saginaw Bay Resource Conservation and Development is preparing to treat the Arenac County drains with the Drain Commissioner through the Department of Natural Resources funding.

State of Michigan Environmental Areas

Sensitive fish and wildlife habitat along the shore lands of the Great Lakes, connecting waterways and river mouths has historically been destroyed by intensive residential and commercial development. The continued loss of these necessary habitats will have serious effects on fish and wildlife throughout the Great Lakes region. Under the State of Michigan's program, environmental areas are regulated to protect habitat necessary for the preservation and maintenance of fish and wildlife. Many environmental areas contain coastal wetlands but other important habitats, such as upland ridges and islands are also included. In several instances, upland areas are involved in habitat protection for shore birds.

Environmental area designation sets up a review program where the affected property owner must make application to the Department for any dredging, filling, grading or other alteration of the soil, natural drainage or vegetation, or placement of permanent structures.

Part 323 provides for the designation of environmental areas up to 1,000 feet landward of the ordinary high water mark of a Great Lake or 1,000 feet landward of

the ordinary high water mark of lands adjacent to waters affected by levels of the Great Lakes. If the environmental area boundary encompasses an entire parcel, a 12,000 square foot structure zone is identified where construction can be permitted.

Approximately 275 linear miles of essential habitat exists along Michigan's Great Lakes shore lands representing about 8.5% of the Great Lakes shoreline. About 607 parcels of land were designated as environmental areas from 1976 to 1985.

Of the approximately 118 environmental areas, each containing one to several parcels of land, less than 6 percent utilize the full 1,000-foot setback. Most of the parcels containing environmental areas extending inland 1,000 feet are State and/or federally owned.

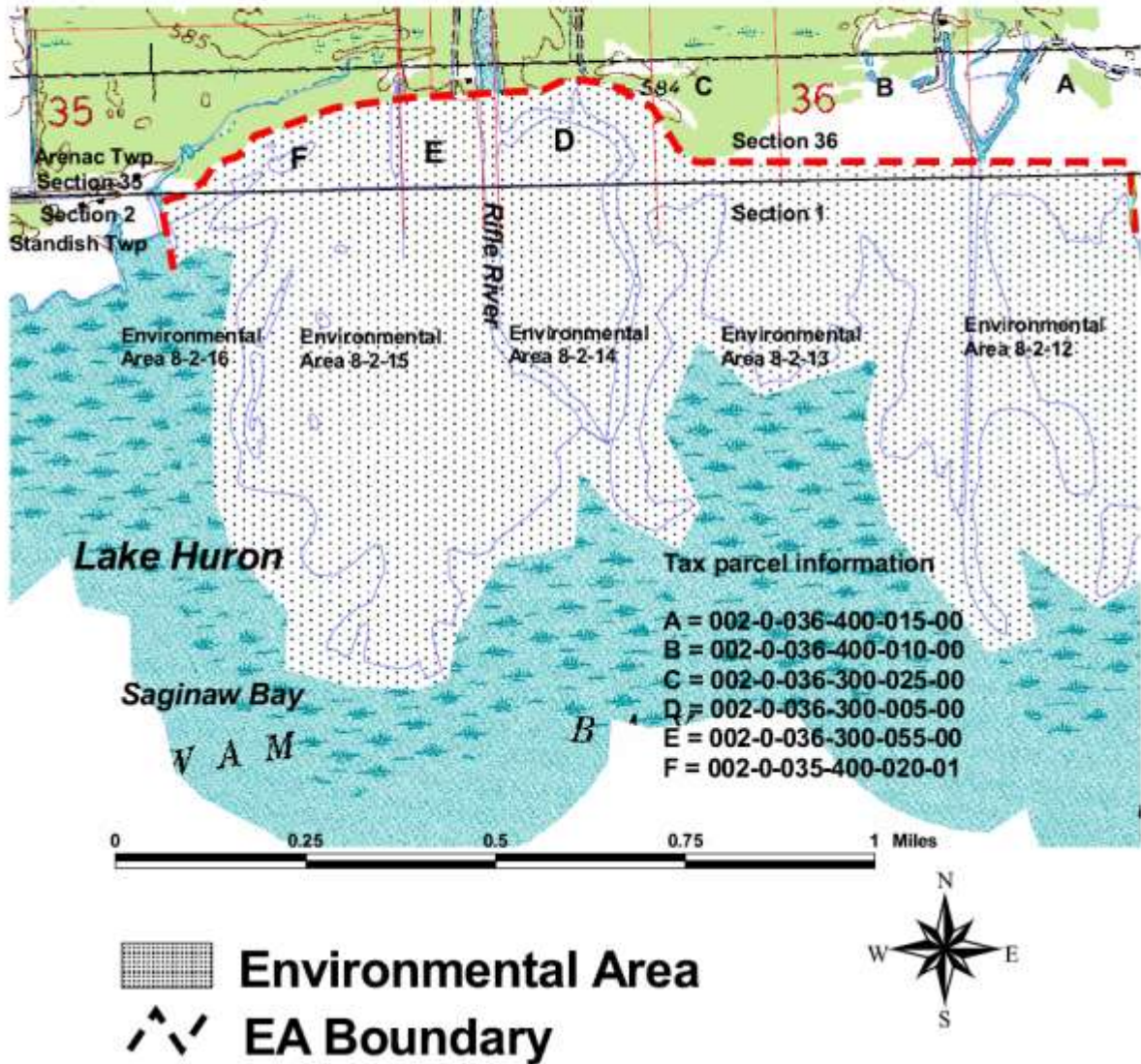
The statute identifies uses, which require the Department's review. These include dredging, filling, grading, other alterations of the soil, alterations of the natural drainage, alteration of vegetation utilized by fish or wildlife, or both, including timber harvest in identified colonial bird nesting areas and the placement of permanent structures. Activities that do not require a permit include maintenance of existing dikes, farming if specific provisions are complied with and timber harvest if outside a colonial bird nesting area.

Designation of these sensitive coastal shore lands assures an increased level of protection over these valuable resources. Studies and surveys conducted by the Department and others have recorded over 25 fish species, 12 mammal species, and 131 bird species utilizing these valuable

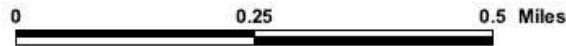
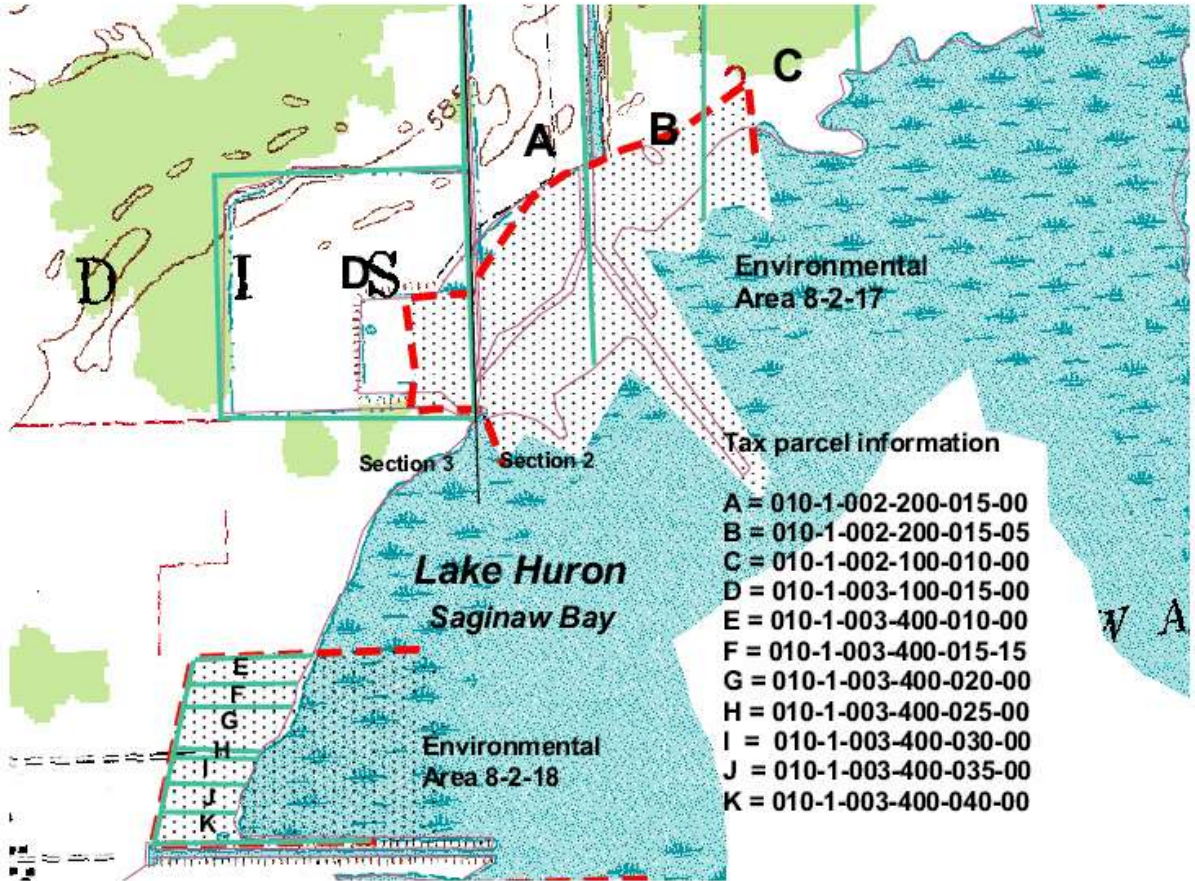
coastal habitats. In addition, typically unseen and overlooked species which are equally essential for maintaining health fish and wildlife populations are also provided protection under this coastal designation.

The following pages include maps indicate those areas designated within Standish Township.

Arenac County, Arenac Township T19N R5E Sections 35 & 36 Arenac County, Standish Township T18N R5E Sections 1 & 2 Environmental Area



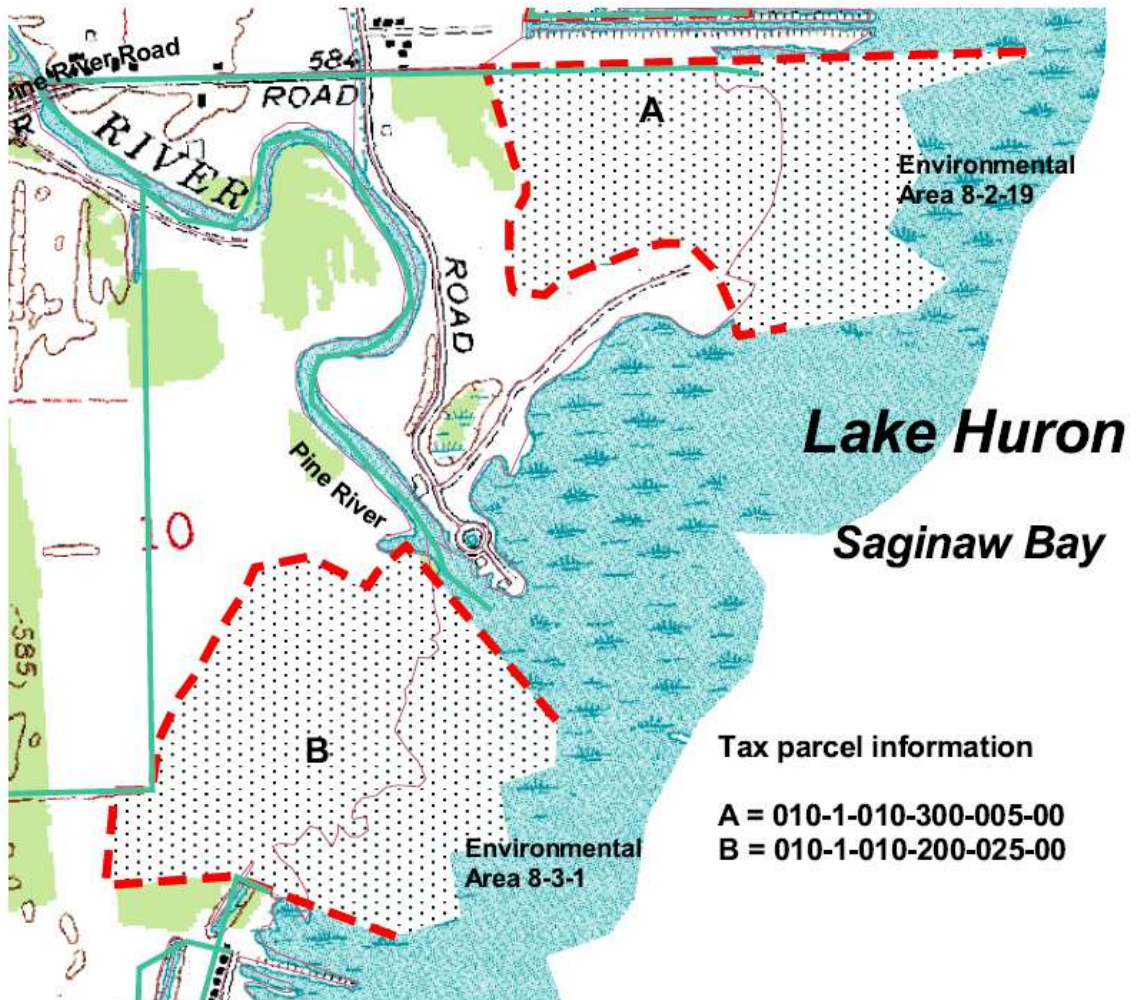
Arenac County, Standish Township T18 N R5E Sections 2 & 3 Environmental Area



Environmental Area
EA Boundary

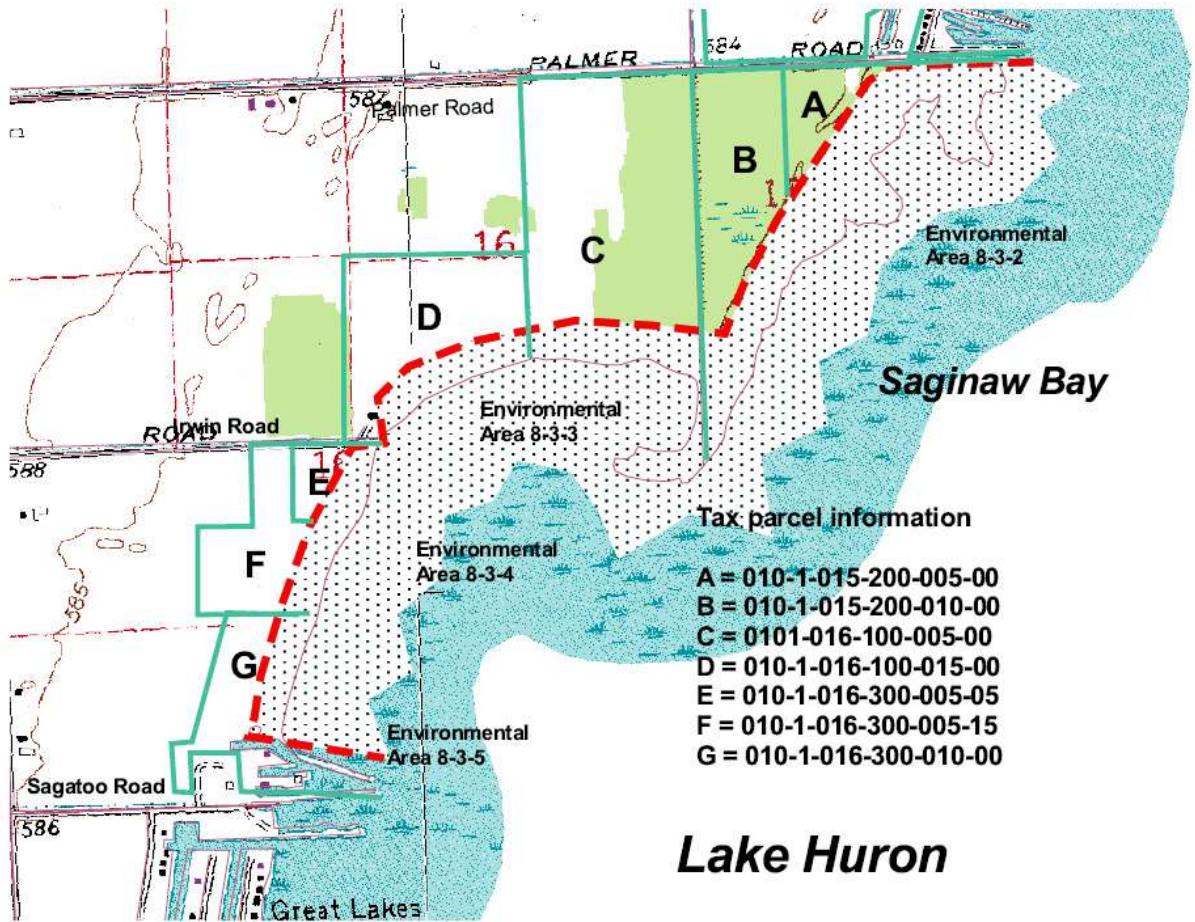


Arenac County, Standish Township T18 N R5E Section 10 Environmental Area



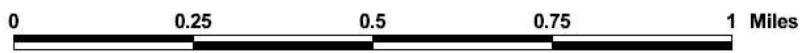
-  **Environmental Area**
-  **EA Boundary**

Arenac County, Standish Township T18 N R5E Sections 15 & 16 Environmental Area



Tax parcel information

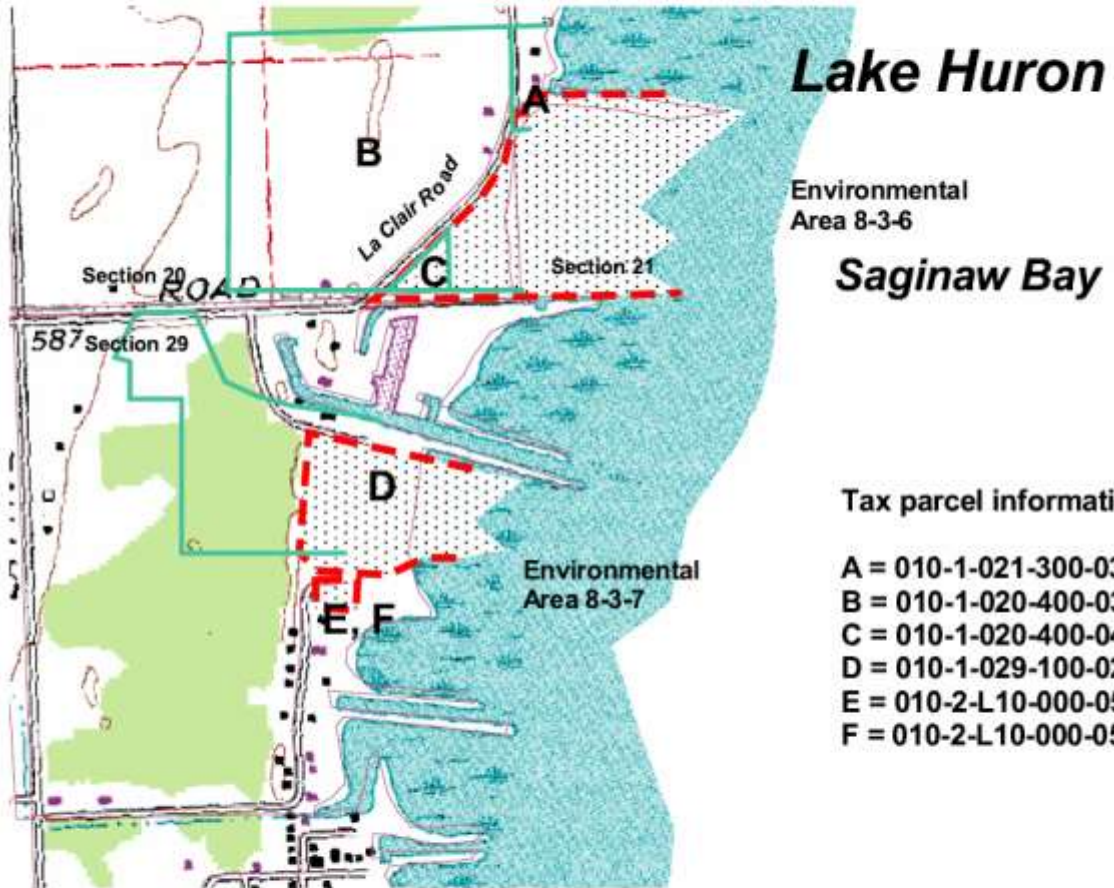
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 C = 0101-016-100-005-00
 D = 010-1-016-100-015-00
 E = 010-1-016-300-005-05
 F = 010-1-016-300-005-15
 G = 010-1-016-300-010-00



 **Environmental Area**
 **EA Boundary**



Arenac County, Standish Township T18 N R5E Sections 20, 21, & 29 Environmental Area



Tax parcel information

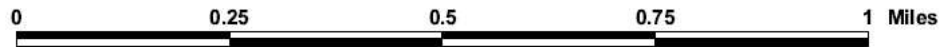
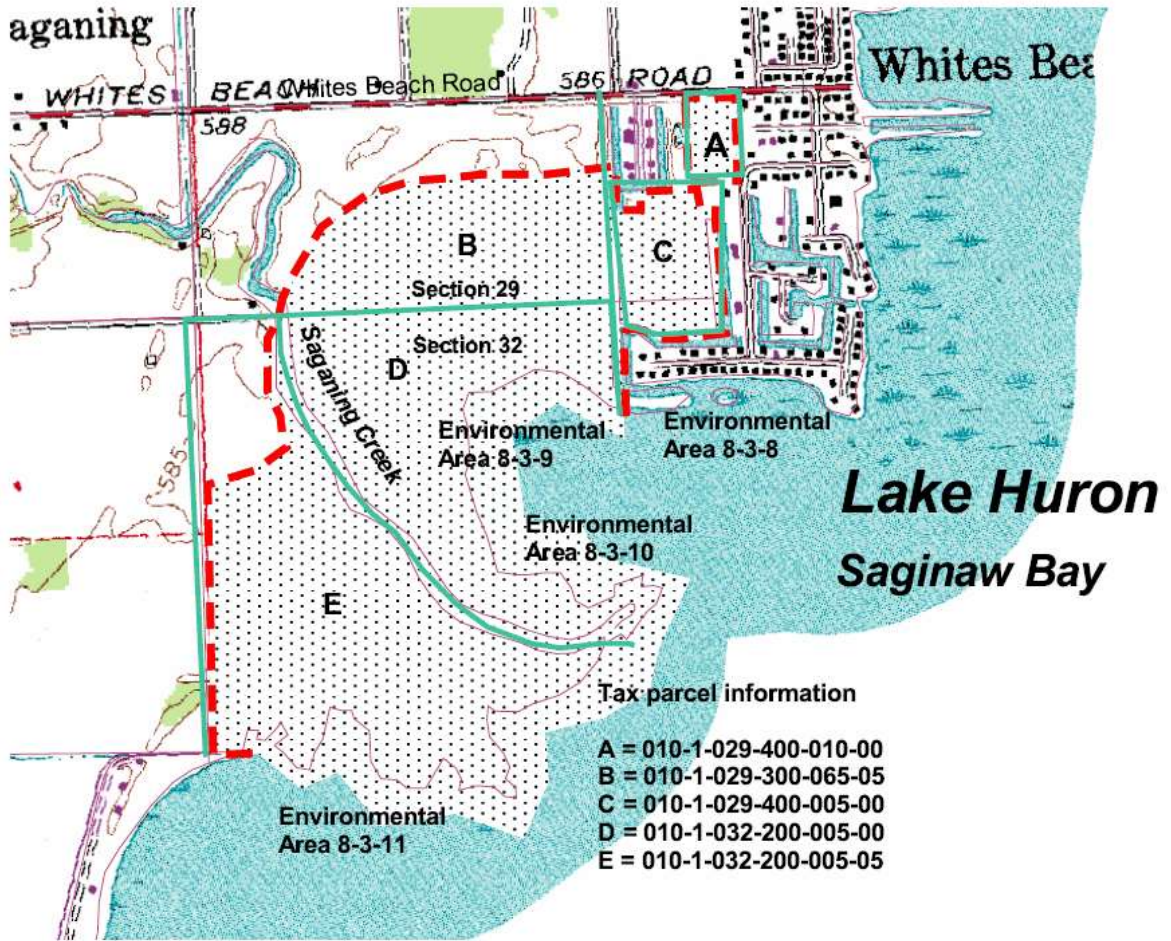
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- B = 010-1-020-400-035-00
- C = 010-1-020-400-045-00
- D = 010-1-029-100-020-00
- E = 010-2-L10-000-051-00
- F = 010-2-L10-000-058-00



-  **Environmental Area**
-  **EA Boundary**



Arenac County, Standish Township T18 N R5E Sections 29 & 32 Environmental Area



 **Environmental Area**

 **EA Boundary**





Aerial Photo of Standish Township circa 2005.

C. Existing Land Cover and Uses

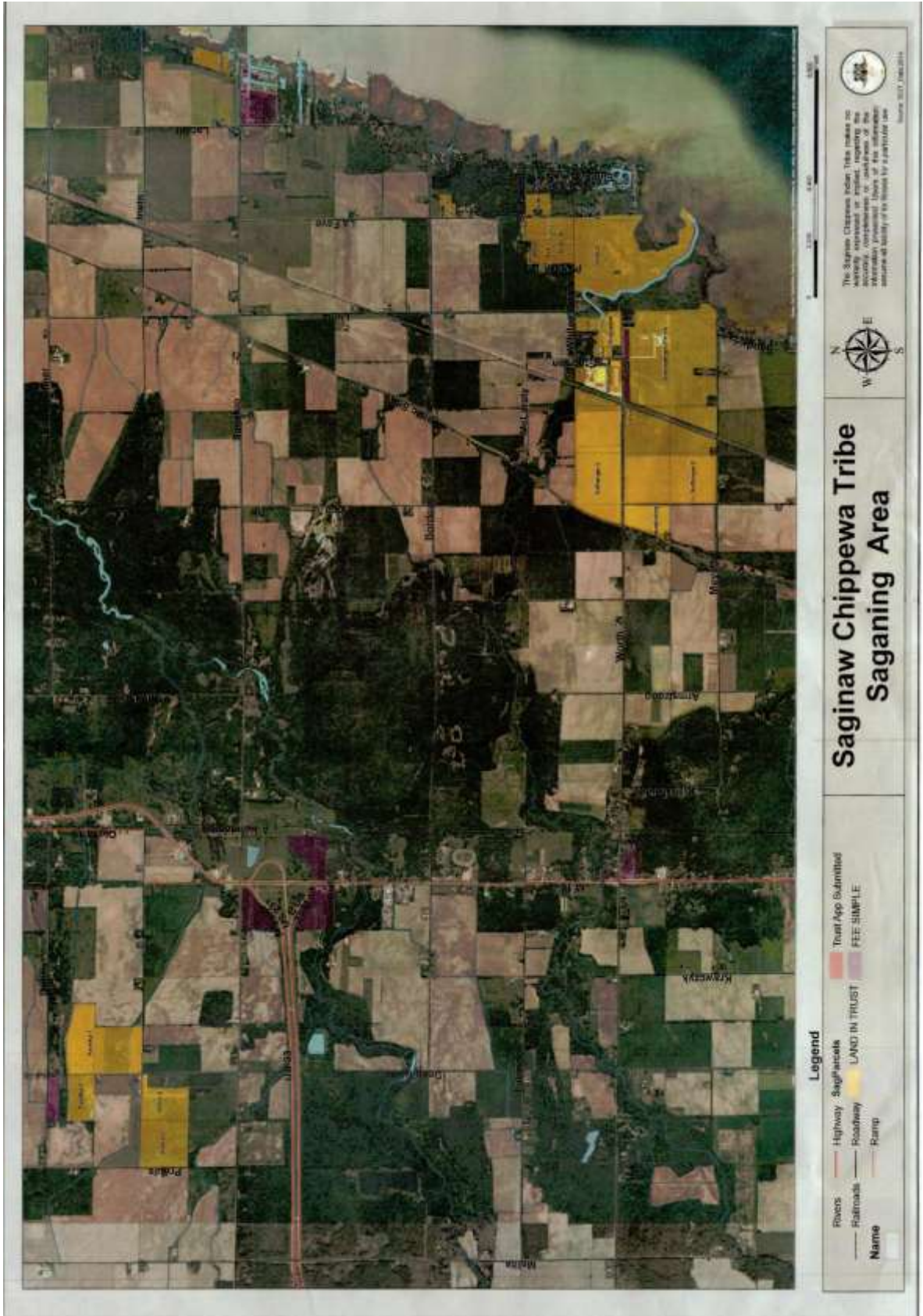
Standish Township has over of 17,500 acres of land. The 1992 Land Cover Map of Standish Township shows that agricultural land is the largest single land cover with deciduous forest with spotted woody wetland areas being the majority of the remainder. Despite the fact that much commercial development has taken place in the southern section of the township, these land covers still predominate. Agricultural uses are the predominant land cover paralleling the Saginaw Bay coastline from 2 to 3 miles inland. Agricultural use also is the primary land cover west of M-13.

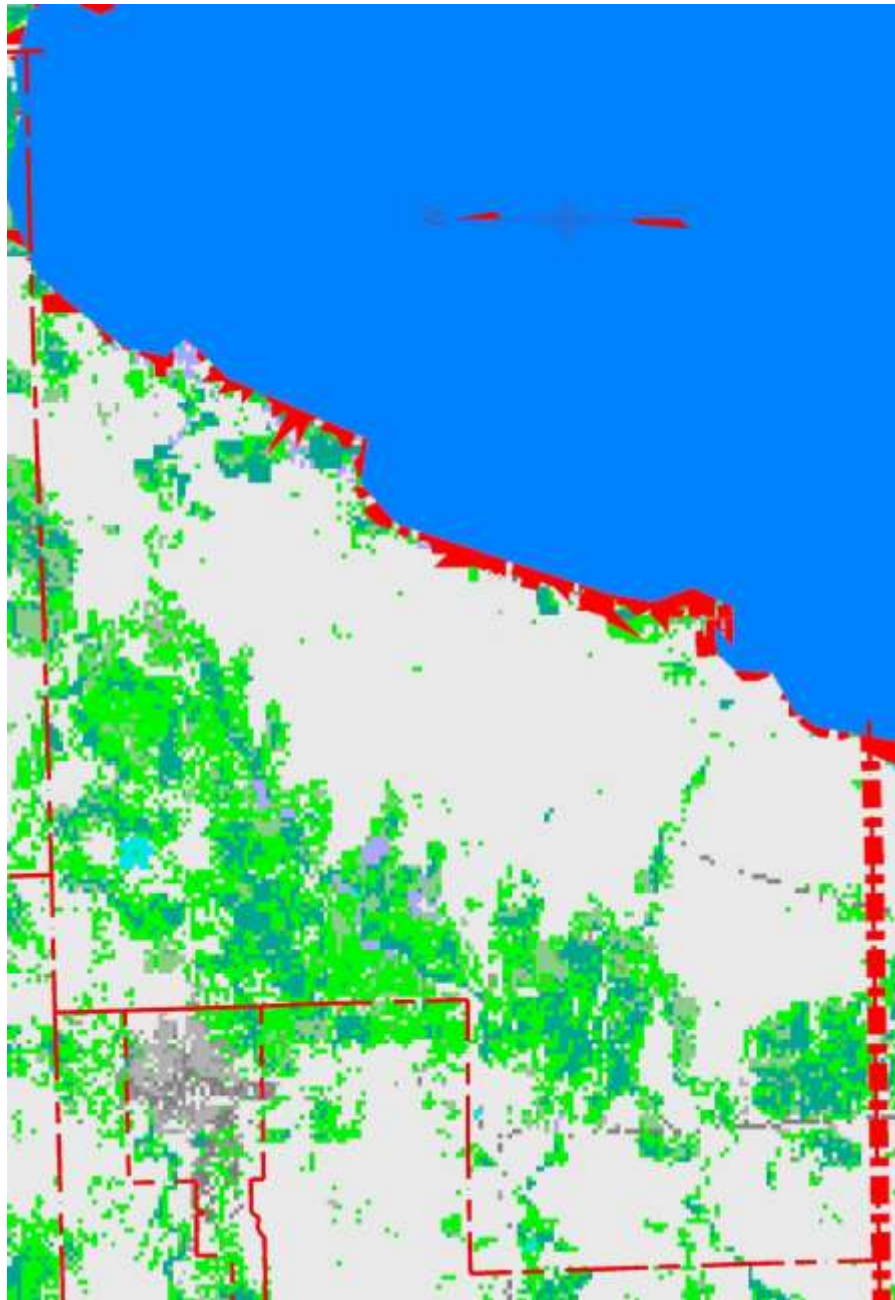
Residentially developed areas of Standish Township, which constitute only a small percent of township lands, are primarily located along the Saginaw Bay Coastline in particular near the Whites Beach area. Other residential areas are along the Pine River Road corridor and the M-13 corridor. The majority of the township lands are agricultural and woodlots with scattered rural residences. Due to the geology of the township several deep pockets of sand exist, and numerous sand mines are located throughout the township. There is also a United States Government Indian Reservation in addition to the other Saginaw Chippewa Indian Tribal lands.

There are three areas of commercial activity now in the township, the M-13 corridor, the Pine River Corridor, and the area surrounding the Eagles Landing Casino on Worth Road. These are areas primarily of commercial use; however, some industrial uses are located in this

area as well. Since the construction of the Saginaw Eagles Landing Casino in 2007 by the Saginaw Chippewa Indian Tribe, the focus of commercial development has changed toward the casino and its associated enterprises in the southeast part of the township. The tribe has purchased and is operating a gas station and convenience and sporting goods store at Worth Road and M-13. The development of a hotel, restaurant, and additional gaming areas adjacent to the existing casino are planned by the Tribe. The Tribe has also purchased, renovated, and currently operates the former Great Lakes Shores Marina (now the Eagle Bay Marina). The Tribe may also be considering other developments for properties it holds including the M-13/US 23 interchange.

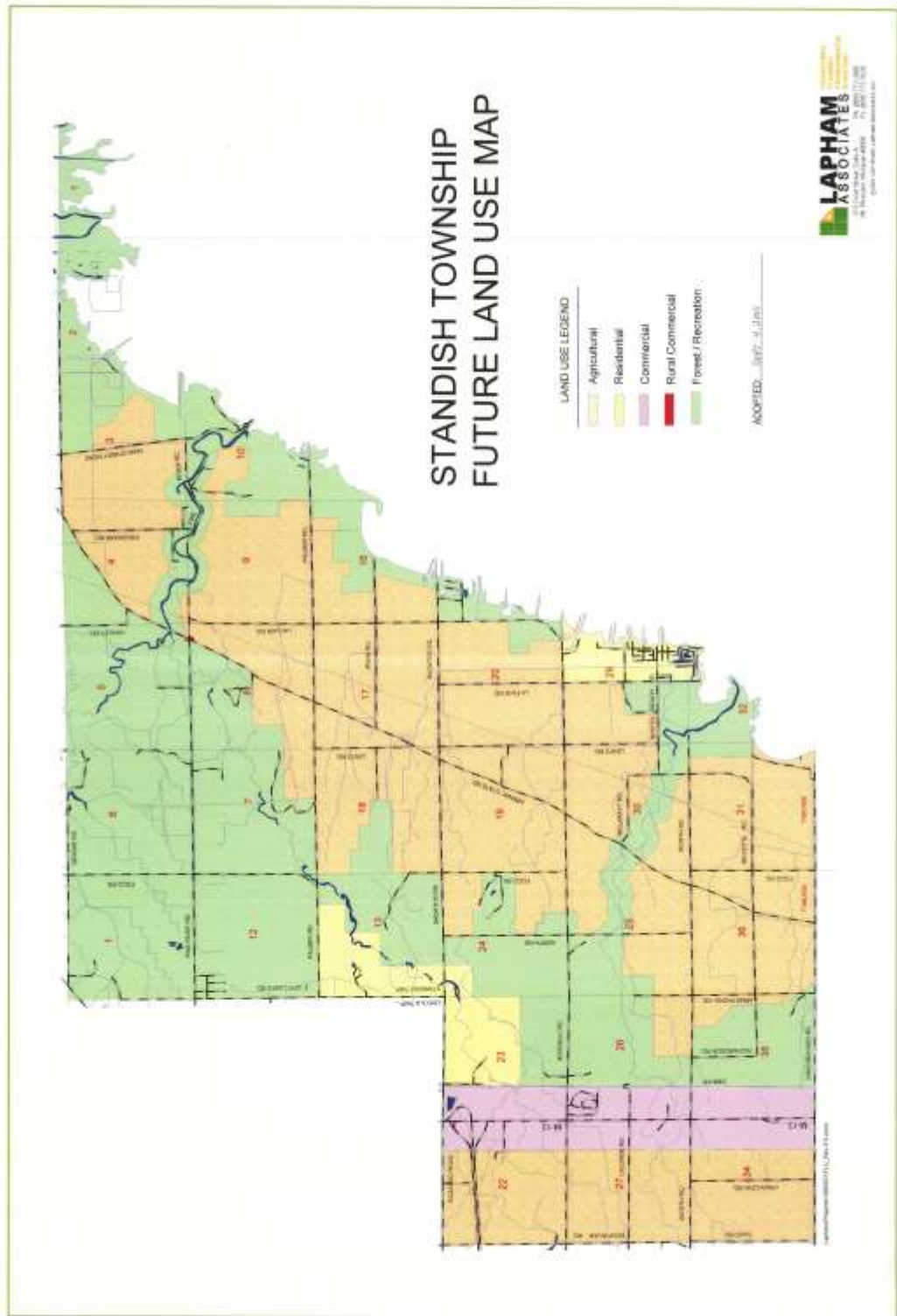
The plat maps (2014, 1906), which follow, illustrate the trends of ownership patterns in the township. Close to 1,700 individual parcels currently, appear on the tax roll in Standish Township. In 1906 most parcels were 40 acres or greater with a few smaller parcels near the City of Standish and the communities of Worth and Arenac. The more current plat map indicates the development of the areas around Whites Beach and Pine River as well as the development around M-13 and the old “Worth” area. Many 40 acre or more parcels still exist in the township although many have been split into 10 to 20 acres parcels. The State of Michigan owns several parcels in Standish Township. One is a small parcel of land at the intersection of M-13 and US-23 to allow the “Cloverleaf.” Other State-owned land lies along the coast of the Saginaw Bay near Wigwam Bay and is a part of the Wigwam Bay State Wildlife Area.



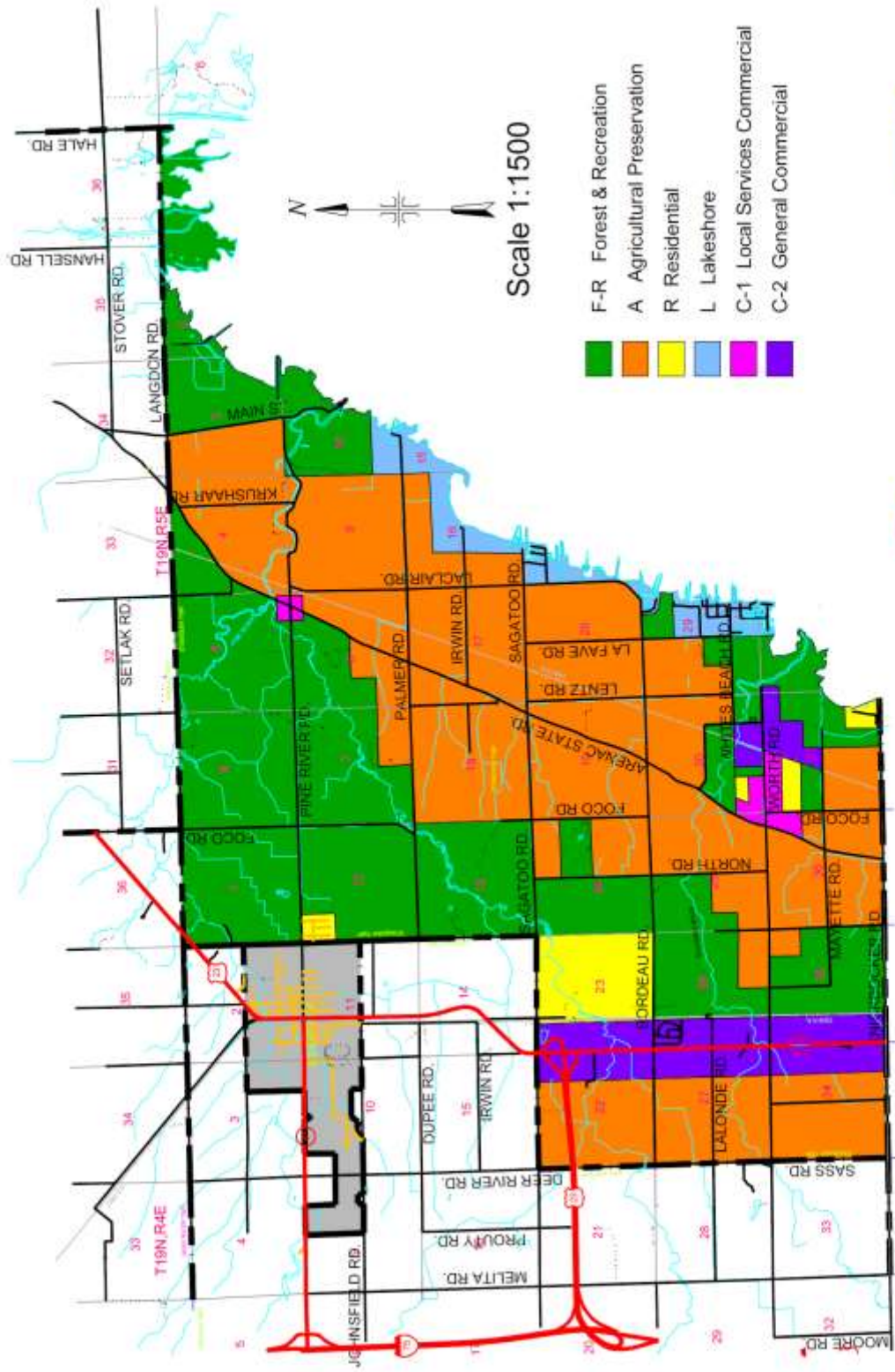


- Low-Intensity Residential
- Agriculture
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Open Water
- Great Lakes
- Woody Wetlands
- Emergent Wetlands

Standish Township 1992 Land Cover



Standish Township Future Land Use Map from 2000

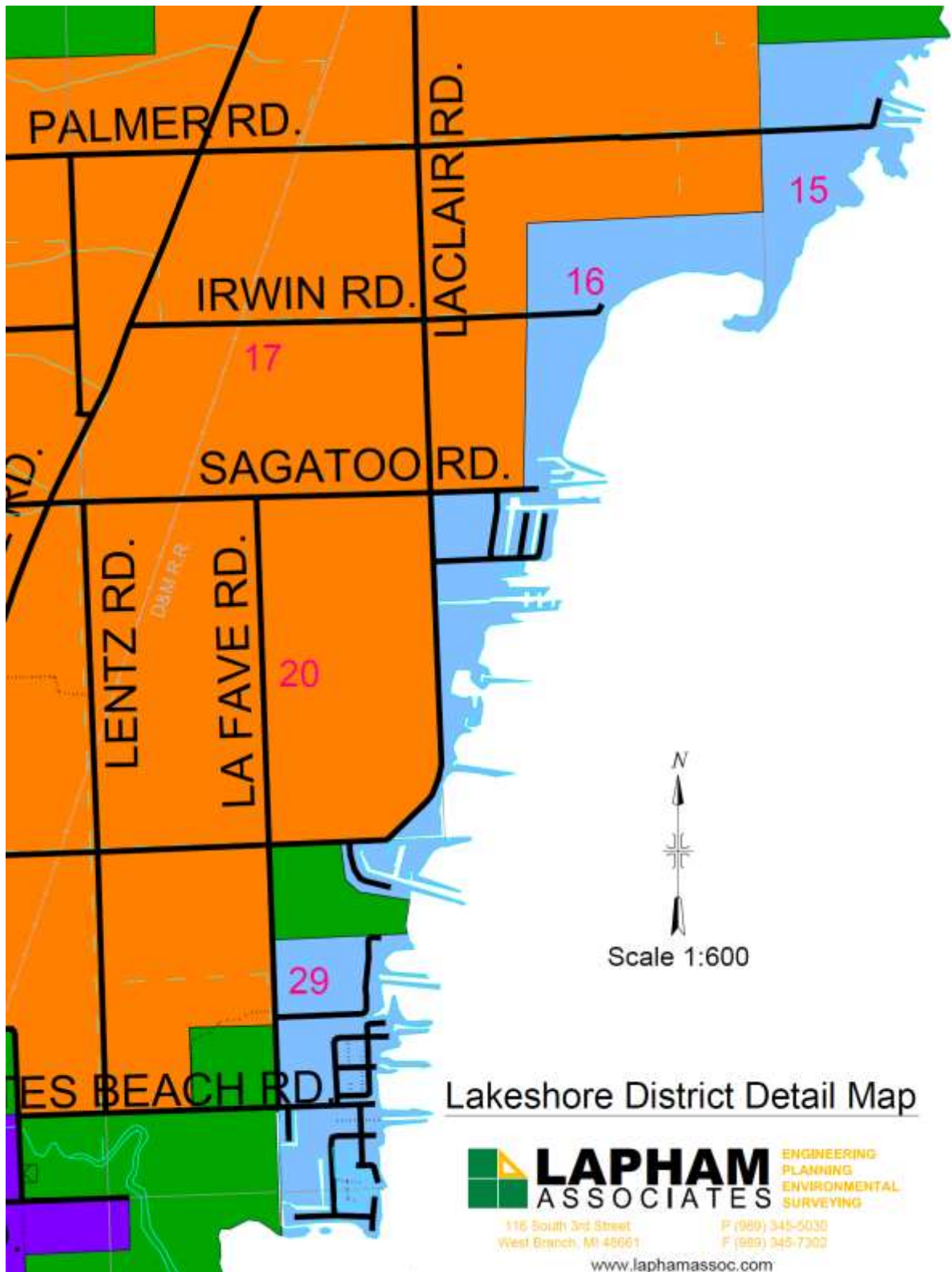


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Standish Township Zoning District Map

Standish Township Zoning Map from 2011

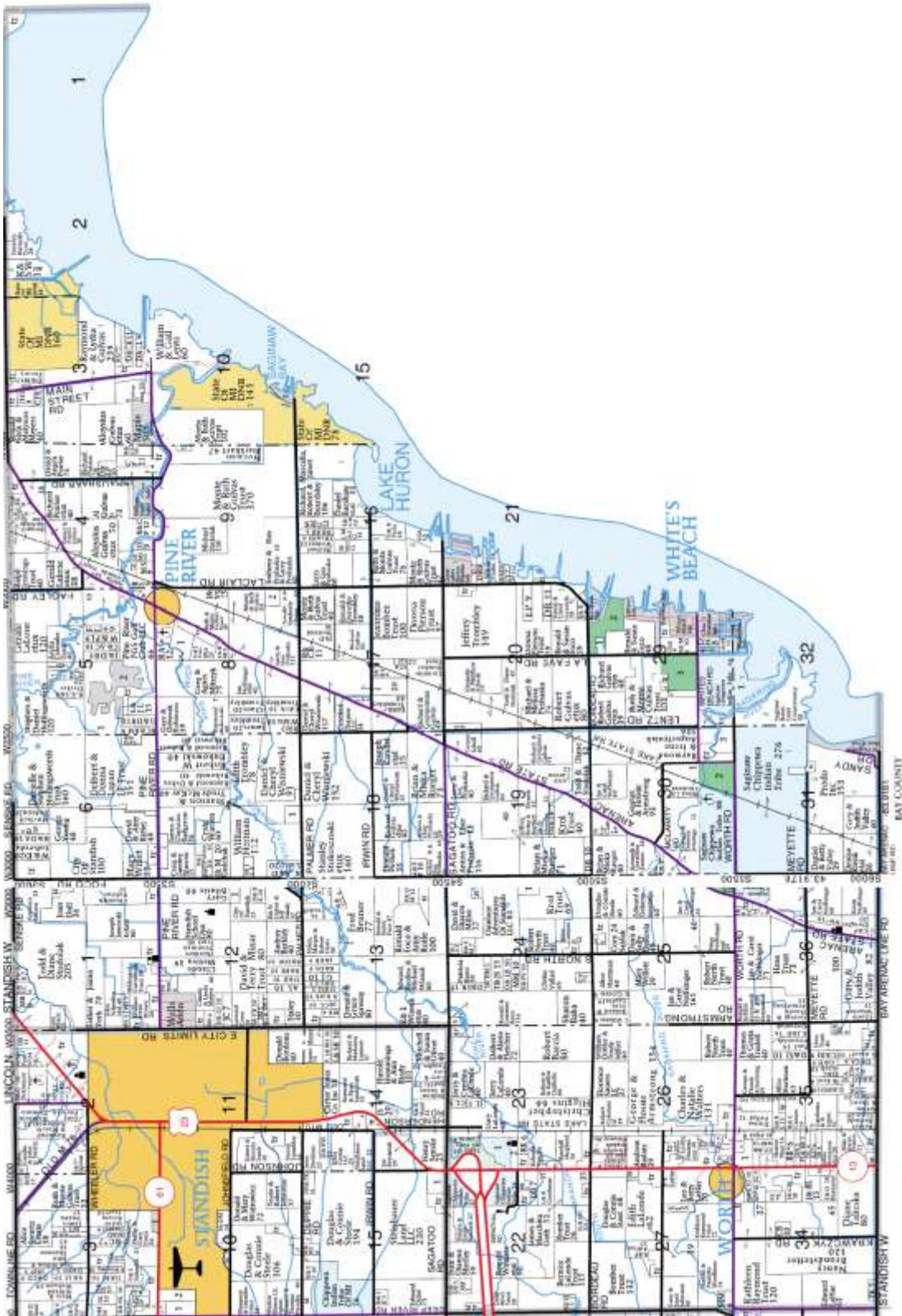


Lakeshore District Detail Map

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Standish Township 2014 Plat Map

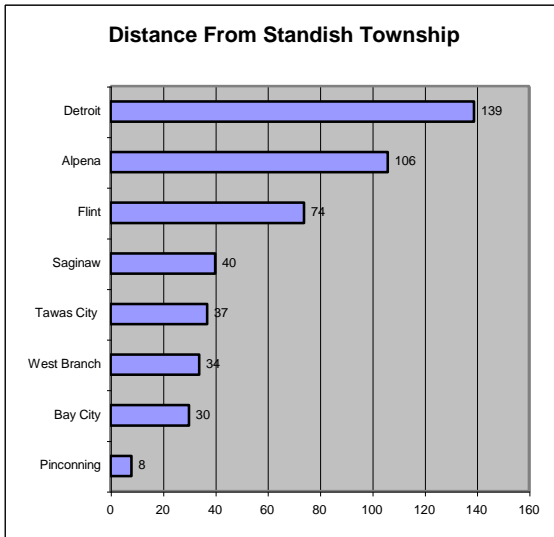
Source: Farm & Home Publisher, Ltd.



Standish Township 1906 Plat Map

D. Transportation, Public Facilities, and Services

Standish Township has several major highways as well as several primary roads that fall within the township's boundaries. The Township lies within a one-hour drive of several communities including Standish, Pinconning, Bay City, West Branch, Tawas City, and Saginaw. Since interstate highway I-75 is just a short drive to the west via US-23 or M-61, township residents can drive to Saginaw, Midland, Bay City and even Flint allowing them to be within the modern commuter's range.



Source: Map Quest

Both US-23 and M-13 as well as nearby access to Interstate I-75 provides Standish Township residents with access to recreational and vacation opportunities throughout northern Michigan and elsewhere in the United States and Canada. The state and federal road system provides access for farmers, commercial and industrial, producers to market their products efficiently throughout the region.

The Arenac County Road Commission is responsible for maintaining roads with funds provided by state gasoline taxes and property tax millages.

Standish Township Roads	
Primary Roads	18.65 miles
Local Roads	44.93 miles
Source: Arenac County Road Commission	



Michigan Department of Transportation 2007 ADT Map.

Roads in Standish Township total over 60 miles. Of these roads 3 sections of roadway are state highways (5.1 miles). M-13 runs north (3.1 miles) from the Bay County line to US-23 just south of the City of Standish. This section of roadway has an average daily traffic of over 7,500 vehicles. US-23 runs west (2 miles) to the township line. This segment of roadway is a limited access divided highway. This section of roadway has an average daily traffic of over 4,500 vehicles. US-23 also runs north into the City of Standish. This section of roadway has an average daily traffic of over 15,000 vehicles. A small portion of US-23 continues to cross the far

northwest corner of the township in Section 1 of T.18N., R.4E.

There are five primary roads in Standish Township that are part of the county road system. Pine River Road and Worth Road are east-west roadways; Deep River Road and Main Street Road are north-south roadways; and Arenac-State Road more-or-less parallels the Saginaw Bay coastline.

The Arenac County Road Commission recently has reconstructed Sagatoo Road to LaClair Road. The commission plans to complete the last section that will link US-23 to the Eagle Bay Marina on the Saginaw Bay in the near future. Monies for this project as well as for McClarty Road and part of Arenac-State Road are being provided through the Bureau of Indian Affairs.

The Arenac County Road Commission also has plans in the township to structurally rebuild South Main Street Road / Pine River Road. The Bureau of Indian Affairs together with the Saginaw Chippewa Tribe has plans for several other road projects to service the casino and other tribal properties. The Tribe has proposed to take over Worth Road from the county road commission from the Lake State Railway to the Eagles Landing Casino and to build and improve a road south of the tribal properties for access to the non-tribal properties on the east side of the casino.

The Saginaw Chippewa Tribe also has plans to improve the intersection of US-23 and M-13. These plans are still preliminary and include the development of the tribal property at this intersection.

Rail transportation for freight in Arenac County is provided through the Lake State Railway, formerly the Detroit & Mackinaw Rail Road. There are two separate railways that cross the township in a north-south direction. The Arenac Transit Corporation provides inter-county bus services for the county residents. Indian Trails Motorcoach provides long distance bus service to the area.

The Midland - Bay City - Saginaw International Airport (KMBS) is about an hour away from Standish Township. The MBS International Airport is the closest commercial airport capable of handling large jets to Detroit and is a Northwest Airlines airliner. Other nearby airports (Class A) include Gross Airport (52I) located 3 miles west of Pinconning; James Clements Airport (3CM) located 3 miles south of Bay City; Jack Barstow Airport (3BS) located 3 miles northwest of Midland; Gladwin Zettle Memorial Airport (KGDW) located 1 mile southeast of Gladwin; and West Branch Community Airport (Y31) located 3 miles southeast of West Branch.



Boating is another means of transportation as well as recreation in the township. The Eagle Bay Marina, located on Sagatoo Road at the Saginaw Bay, provides

docking, fuel and other necessities for boaters on the Lake Huron. Also, the State of Michigan maintains a boat launch facility at the Wigwam Bay State Wildlife Area. This boat launch is at the end of Pine River Road at the Saginaw Bay. Other docking and launch areas to the Saginaw Bay are available.

Utility services in the township are provided by Consumers Energy (electric and natural gas service), and AT&T and Verizon (phone service). Charter Communications, Dish Network, and Direct TV (cable television) available in most parts of the township and satellite television is available anywhere in the township. Internet services are provided by Charter Communications and HughesNet where available, and M-33 Access and Speednet, LLC (wireless).

The City of Standish maintains sanitary sewer lines that are located in the township, but no municipal sanitary sewer is available to the township. A sanitary sewer main runs along Pine River Road and Foco Road, and service to a small portion of the township could be provided if a mutual agreement could be agreed upon between the municipalities via this existing collection system.

After the Michigan Department of Environmental Quality conducted the soil samples at various locations at Whites Beach, the agency determined that approximately 70% of the well and septic systems were failing due to the presence of E-coli bacteria. The health department would no longer issue permits and the Department of Environmental Quality, in essence, told Standish Township if they did not pursue a solution the state would. A public hearing was conducted so

residents of the affected area could be made aware of the problems and could discuss its options. An ad hoc team was formed by the residents of Whites Beach. The group got quotes from adjoining communities to provide sewer and water services to the area: Pinconning, City of Standish and the Saganing Eagle's Landing Casino, each of which has operating water and sewer facilities. Townley Engineering was hired to guide the team and the township through the process. A grant was pursued through Rural Development to aid the community and the township to afford the new systems. After many months of acquiring information for an agreement and planning, a \$4 million grant was authorized through Rural Development. The Saganing Eagle's Landing Casino was selected as the most economical option for supplying the water and sewer services. Details for an agreement continue to be worked out between the Saginaw Chippewa Tribal Council and Standish Township. A water and sewer ordinance needs to be created and this task was given to the Planning Commission. Many details still need to be worked out, but a tentative date of spring 2016 to begin construction of the system has been set.

Water supply for the rest of Standish Township residents is mainly derived from individual on-site wells. However, the Saginaw-Midland Municipal Water Supply Corporation has a main pipeline from Sims Township to Saginaw that generally parallels the Saginaw Bay shoreline. This pipeline provides raw lake water from the Saginaw Bay that is treated by municipalities prior to distributing to consumers. Another mainline runs down Pine River Road to serve the City of Standish, where the water is treated for

residents and supplies the Pine River Golf Club and a few other township residences bordering the city.

Standish Township provides general services to the citizens in their community such as assessing, zoning and planning, and elections. Standish Township provides these several services to the citizens in their community by means of local property taxes and state revenue sharing. The township also maintains the cemetery, township hall, and contributes to the Standish Historical Depot and Welcome Center in the City of Standish. The township has also taken actions that have reduced blight throughout the township.

The Arenac County Sheriff Department and the Michigan State Police's third district provide police protection to the township. Fire protection is provided by the Standish Area Fire Authority, which is located in the City of Standish and is operated by volunteer firefighters. The Standish Area Fire Authority is supported by one mill from each municipality – Standish Township, the City of Standish and Lincoln Township.

The Standish Fire Authority constructed a new fire barn in 2011. It is located in the City of Standish Industrial District. The new barn is 60 x 120 in size with office, kitchen area, boardroom and the area for all the fire equipment and vehicles. The new barn was funded with monies from the Authority funds, a large donation from the Saginaw Chippewa Indian Tribe, and a 20-year loan from the USDA.



In addition to the Fire Department, medical services are also provided through local funding. Mobile Medical Response (MMR) is responsible for medical emergencies within Standish Township. St. Mary's of Michigan Standish Hospital located in the City of Standish offers full medical services for the area. The City of Standish also offers a number of dentists, physical therapy and rehabilitation specialists, mental health practitioners and pharmacies.

Standish Township is serviced by the Central Michigan District Health Department. An office located in the City of Standish on Deep River Road services all of Arenac County. The Health Department is responsible for environmental health including permitting of drain fields, potable water wells, and food service facilities as well as testing and other environmental health issues. They also provide health education and other personal health services such as immunizations, family planning and the WIC program.



Children in Standish Township go to Standish-Sterling Community Schools. Higher education is available to the township through Kirtland Community College in Roscommon, Delta College in Bay City, Saginaw Valley State University in Saginaw and Mid-Michigan Community College in Harrison as well as other state universities such as Michigan State University, University of Michigan and Central Michigan University.

Alternative education is also provided through the Bay-Arenac ISD Career Center and through the Standish Alternative Education Program. Standish-Sterling Community Schools currently has dual enrollment with Delta College, career Center, and F21 which are online high school level classes. They do not offer alternative education/GED classes. The Bay-Arenac ISD conducts programs that serve high school young adult students with moderate and severe disabilities. These special education programs are designed to strengthen the educational, social, personal and daily life skills of students with moderate and severe cognitive and impairments and severe multiple impairments with the goal that these students become participating members of their community to the best of their abilities. To reach this goal our students work toward transition by following a curriculum that includes functional academics, leisure recreation,

independent living, and community-based experience.

Other State and Federal Governmental services are available in Standish Township. The United States Department of Agriculture has a service center and a Rural Development office in Standish. The United States Postal Services also has an office in Standish. The Secretary of State has an office in Standish, and the Michigan Department of Human Services has the Arenac County Department of Human Services office in Standish. The State of Michigan Department of Corrections has the Standish Maximum Correctional Facility in Standish which opened in 1990. This prison has been closed. The city and county are working with the state trying to find a new use for the facility or to find new operators for it.

Standish Township has numerous recreational possibilities for its residents and visitors. Many of these are associated with the natural resources noted earlier including fishing, hunting, boating and birding. Also discussed earlier are the Eagle Bay Marina and the Wigwam Bay Wildlife Area. There is a small boat launch at the mouth of the Pine River. The Outdoor Adventures Campground is located on Foco Road and the Pine River Golf Club is in the north of the township off Pine River Road. The Standish Roadside Park honoring Arnold P. Jessen is located on M-13. This park is the largest park in the township and is used for family picnics and other gatherings. The township hall is available for rent at a reasonable rate by contacting a township trustee. A new activity in the township is the Pow Wow Weekend held at the Pow Wow grounds near the casino.

Standish Depot Days, an annual event held in Standish the first weekend of October, allows visitors to relive the old Michigan Central Railroad Depot days and to discover Arenac County's past with the Arenac County Historical Society scrapbooks. Tours at the Depot include a restored 1929 caboose and two English passenger rail cars.

Other Depot events include:

Antiques tractor displays – provided by Sunrise Side Antique Tractor Club

Amusement rides

Horse-drawn carriage rides

Pie baking contest

Chili cook-off

Brownie baking contest

Chicken noodle soup cook-off

Depot Days 5k Run/Walk – first weekend in October

Santa at the Depot – November

The Depot offers great photo opportunities. All event details can be found on the website

www.standishdepot.org.

Other county events include:

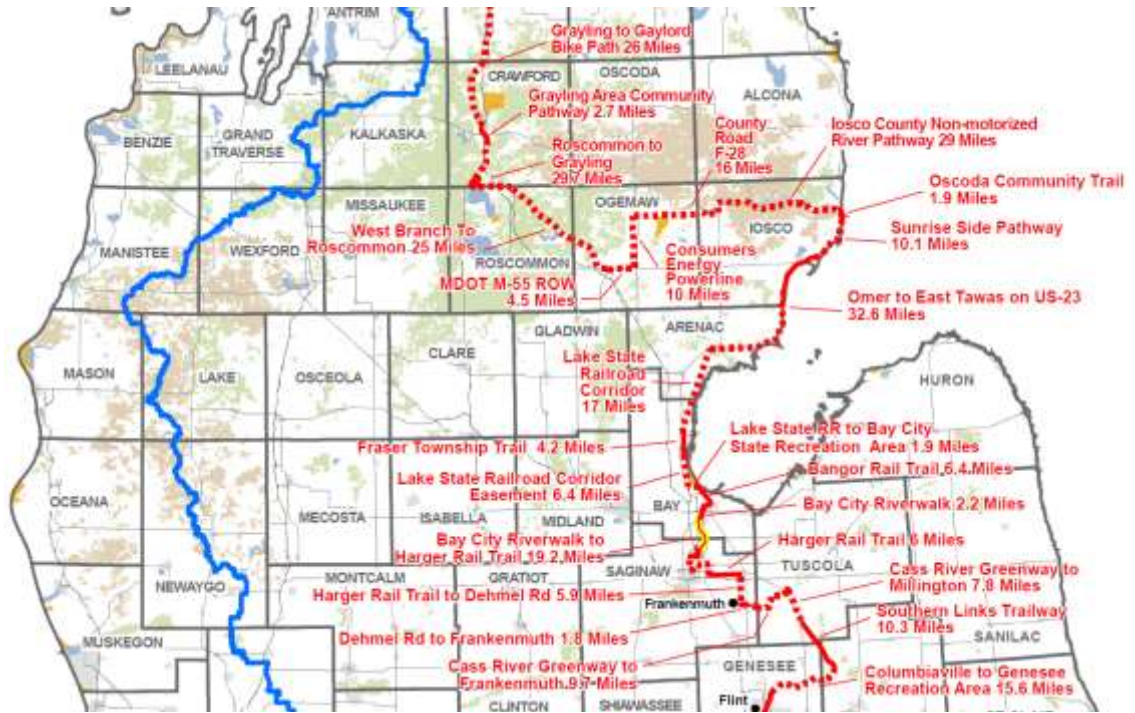
Yearly Standish Car Show – August

Heritage Route US-23 Lake Huron

Discovery Tour – October

The State of Michigan has announced the route for the new state pedestrian and bike trail, the Iron Bell Trail. This path from Belle Isle in Detroit to Ironwood in the Upper Peninsula follows the Lake State Railroad and Consumers Energy property through Standish Township up to Omer then heads east to Au Gres. The Arenac Heritage Route Authority created the *Arenac County Pedestrian and Bicycle Master Plan* for pedestrian and bicycle paths in the county that includes this trail way. That plan is included in the master plan here by reference.





Iron Belle Trail Draft Plan



Arenac Heritage Route Authority's Trail Master Plan



Standish Township is also on the Arenac County Blue Water Trail which is part of the Saginaw Bay Water Trail and part of the Great Lakes Water Trail. The *Arenac Blue Water Trail Development Plan* is included in this master plan by reference.

The Arenac Blue Water Trail Plan sets out sites for canoe and kayak launch and landing sites along the Saginaw Bay shoreline. The Saginaw Basin Land Conservancy preserves, Whites Beach, the Department of Natural Resources boat access at Pine River, and the boat launch in Au Gres, and other road ends are sites identified in the plan. The township is assessing improvements that can be made at Whites Beach to make it more accessible and usable for canoers and kayakers on the trail.



**Arenac County
Saginaw Bay
Water Trail Map**

- | | | | | |
|--|---------------------------------|-------------------------------------|---------------------------|--|
| 1. End of Worth Rd. & White's Beach Rd. | 4. Wigwam Bay Pine River Access | 9. End of Sanbago Rd. | 13. Au Gres City Park | 18. End of W. Bessinger Rd. |
| 2. End of Bordeau Rd. & Standish Nature Preserve | 5. Riffe River Mouth | 10. Pt. Au Gres Park | 14. End of S. Tonkey Rd. | 19. End of Hammel Beach Rd. |
| 3. End of Sagatoo Rd. & Eagle Bay Marina | 6. End of Stover Rd. | 11. Pt. Au Gres Marina & Campground | 15. End of S. Delano Rd. | 20. End of Twining Rd. |
| | 7. End of Big Creek Rd. | 12. DNR Public Access | 16. End of Foster Rd. | 21. End of Turner Rd. & "The Singing Bridge" |
| | 8. End of Dreyer Rd. | | 17. Sims-Whitney Cemetery | |

E. Economic Profile of Arenac County

Arenac County is predominately a rural, forested area. It is about 30 - 40 minutes north of the industrial tri-city region of Midland, Bay City and Saginaw. It borders on Lake Huron and the Saginaw Bay and considered part of the northern recreational area of Michigan. The economic base of the county includes recreation, agriculture, manufacturing and government employment.

The population of the county was 15,899 in 2010, decreasing 1,372 since 2000. The county has a work force of about 6,581 persons. Unemployment in the county is relatively high when compared to both state and national rates. Arenac County had an unemployment rate of 5.9% in 2000 compared to 3.6% for the entire state of Michigan and it rose to 10.8% in 2014.

Annual Unemployment Rates

	2000	2005	2010	2014
Arenac Co.	5.9%	9.4%	16.5%	10.8%
Ogemaw Co.	5.5%	7.7%	14.5%	9.7%
Gladwin Co.	5.4%	10.3%	14.8%	9.2%
Bay Co.	4.2%	7.1%	11.6%	7.1%
Michigan	3.6%	6.8%	12.6%	7.3%

Forty Two and One-Half percent of Arenac's residents over 25 have high school diplomas with 6.8% percent with a bachelor's degree. Per capita personal income in Arenac County is \$20,039 versus \$25,681 per person for the State of Michigan (2013).

The largest economic sectors in the county are health care, educational services, and social assistance employing 1,046 people (25%), followed by manufacturing employing 15.7% and retail trade

employing 1.4%. Many of the jobs in the county are minimum wage with those in the manufacturing sector offering the best wages. The largest employer in the county is the St. Mary's of Michigan Standish Hospital employing 200 persons (2015). The opening of the Saganing Eagles Landing Casino in 2008 has provided over 300 new jobs in the township.

Agriculture is a large economic sector in Standish Township. In 2014, Arenac County farm wages totaled \$2,169,075.00 and the 2012-agriculture value of products sold totaled \$51,202,000.00. The number of farms and acres in farms has declined since the 2007 Census of Agriculture. However, the average size of farm has remained constant at 194 acres. Most significantly is the change in the value of products sold. In 2007, the average value of products sold per farm of \$60,923.00 while that number doubled in 2012 to \$121,620.

Commercial activities in Arenac County tend to be located along the major transportation routes. M-13/U-23 and M-61 are the primary routes in the county and most commercial activities are located along these roadways. The Saganing Eagle Landing Casino and the nearby properties along Worth Road are developing into a strong commercial district. A few other commercial activities are scattered throughout the township such as the Eagle Bay Marina. In addition, many home businesses, such as contractors and beauty salons, are located throughout the township.

There are four major banks in the county with combined assets of over \$128 million. There is one certified industrial

park, the Standish Industrial Park located west of downtown Standish on M-61. The county has five public school districts. There are three colleges within close proximity: Saginaw Valley State University in Saginaw County; Delta Community College in Bay County; and Kirtland Community College in Roscommon County.

There is one hospital in Arenac County. St. Mary's of Michigan Standish Hospital serves the residents of Arenac County and has a total capacity of 69 beds.

Major transportation routes cross Arenac County. Interstate I-75 transects the western portion with US-23 splitting off

and joining M-13 south of Standish and running north along the Lake Huron coast of Michigan. M-65 tees off US-23 just east of Omer and provides another northerly route. Michigan trunk line M-61 runs east/west; M-33 begins in northern Arenac County and heads north to Onaway. Three truck companies do business in the county. Greyhound in Bay City provides bus passenger service. The Lake State Railroad hauls freight in the county. The nearest port is Alabaster, just north of the county line. Air travel and freight can go through the MBS International Airport. The largest airlines serving MBS are Northwest, Simmons and United Airlines.

Property Values (SEV) (in Dollars)			
	2012	2015	% Change 2012/2015
Standish Township			
Real	45,780,099	52,265,000	14.2%
Personal	4,314,600	8,519,200	97.5%
Arenac County			
Real	515,052,566	623,468,865	22.8%
Personal	36,675,585	45,508,150	24.1%
Iosco County			
Real	1,050,918,530	1,133,449,100	7.9%
Personal	69,925,495	106,492,843	52.3%
Ogemaw County			
Real	747,163,159	915,290,386	22.5%
Personal	58,807,792	61,220,162	4.1%
Gladwin County			
Real	899,981,015	1,028,935,707	14.3%
Personal	38,664,599	46,793,859	21%

F. Demographic Trends

The Standish Township population from 2000 to 2013 decreased from 2,026 to 1,831 an 11.8% decrease. The current density of the township is 67 persons per square mile. Over this ten-year period, the county population has decreased 2.6%, the state increased 0.2%, while the United States population has increased 10.7%. Standish Township residents, similar to most of the region, are almost all white (96.2%) and are almost equally divided between the sexes, (913 male, 918 female).

The 2013 American Community Survey shows that most Residents are homeowners (86.9%) where the average household size is 2.94 persons. The median age in the township is 48.8 years, with 15.4% of the population under age 18 and 15.6% of the population aged over 65 years of age. The township is made up primarily of households comprised of married couples living together (63.8%); 24% of households are individuals, and 3.6% are female householder. The median price of a home in Standish Township in 2013 was \$91,700.

Of the population over 25 years old of Standish Township 572 (43.6%) are high school graduates, 103 (7.9%) have bachelor's degree or higher and 22 (1.7%) have less than a 9th grade education. Standish population contains 149 (10%) veterans and 354 (19.3%) have a disability status. Of the 2013 population 178 (22.6%) were never married, 11 (1.4%)

were separated, 46 (5.8%) were widowed, and 77 (9.8%) were divorced.

According to the 2013 American Community Survey 99.5% (1,822) of Standish Township were born in the United States, 1,649 were born in Michigan, and 9 were born outside of the United States. In Standish Township 17 (1%) people speak a language other than English at home. The largest segment of the population reports to be of German ancestry 26.4%, with 20.6% claiming French, 18% claiming Irish, and 15% Polish.

According to the 2013 American Community Survey median household income in Standish Township was \$43,136 compared to the United States median household income of \$53,046. The per capita income was \$20,105 for Standish Township while the United States was \$28,155. The median income for families was \$43,136 with 10.4% of families and 15.3% of the total population falling below the poverty line.

Just over 50% of the population is in the labor force. The average commuting time for township residents is about 27 minutes, compared to 25 minutes for the average commuter time for all U.S. residents. This supports the earlier indication that Standish Township residents historically have traveled to local cities such as West Branch, Tawas City and as far away as Saginaw and Alpena for work.

Population Trends					
	2000	2010	% Change from 2000	2013	% Change from 2010
Standish Township	2,026	2,077	2.5%	1,831	-11.8%
Arenac County	17,269	15,899	-7.9%	15,451	-2.6%
Gladwin County	26,023	25,692	-1.3%	25,514	-0.8%
Ogemaw County	21,645	21,699	0.2%	21,219	-2.0%
Iosco County	27,339	25,887	-5.3%	25,385	-1.6%
Michigan	9,938,444	9,883,640	-0.6%	9,898,193	0.2%
<i>Source: 2009-2013 American Community Survey 5-Year Estimate</i>					

Population Projections			
	2020	2040	% Change
Standish Township	1,894	1,967	3.9%
Arenac County	15,859	16,494	4.0%
Gladwin County	24,499	23,440	-4.3%
Ogemaw County	22,533	24,189	7.3%
<i>Source: Michigan Department of Management and Budget, Office of the State Demographer</i>			

SECTION THREE

SECTION THREE

PLAN OF ACTION

A. Analysis & Discussion of Findings

Standish Township is a small rural general law township that has recently become the center of economic activity. Historically the township has been a rich agricultural and recreation and resort area. The township with over thirteen miles of Saginaw Bay shoreline and the woods and wetlands associated with the Pine River and its branches has provided exceptional outdoor activities from camping to Great Lakes boating and fishing. Permanent and seasonal homes within easy reach of the not far distant manufacturing areas of Saginaw and Flint have also been part of the township's attraction.

The City of Standish on the township's northwest boundary is the Arenac County seat and has furnished township residents with employment and commercial and governmental services. The Standish Area Fire Authority, headquartered in Standish, provides fire suppression to the township. Although the city has both water and sewer and the city's water treatment plant and sewer lagoons are located in the township, only a few adjacent township residences are supplied with these services. The township is in the process of extending services to the Whites Beach area.

The soils of Standish Township are some of the best agricultural lands in the world and the township has striven by planning and zoning to protect these lands from other competing land uses and to

encourage farming and other agricultural operations in the township.

The Saganing Indian Reservation (part of the Saginaw Chippewa Indian Tribal lands) is located in the southeast of the township. The tribe began a group of dramatic commercial enterprises in 2007 by opening the Saganing Eagles Landing Casino. It has also purchased the Great Lakes Shores Marina (renamed the Eagle Bay Marina), a convenience, gas and sporting goods store at Worth Road and M-13/ Huron Road and acquired numerous other properties within the township to construct businesses ancillary to the casino. Potential plans include hotels, a golf course, and residential and commercial developments. The effects of all these activities portend substantial changes for the township and region.

B. Goals and Determinations

Given the state of Standish Township and the effects of both local and outside forces, the Planning Commission puts forth the following goals for its future:

- Retention of the Township's rural character and the high quality of its natural resources;
- Maintenance of the farming and farm industries in the township;
- Continued provision of needed services and facilities for township residents and visitors;
- Continued development and maintenance of a good township road system;
- Expansion of recreational activities and education opportunities for all;

C. Policies, Strategies, and Actions

Expansion of recreational activities and education opportunities for all.

- The Planning Commission should review recreational opportunities within the township and the region and prepare a recreation plan in accordance with the Michigan Department of Natural Resources standards.
- Work with the local school districts (K-12, ISD, community colleges and the Tribe) to ensure that the best possible education is available at all levels and to all citizens who wish it;
- *The Arenac Heritage Route Authority Pedestrian and Bicycle Master Plan* has been incorporated into this plan by reference. The township will work with the Authority, Arenac County, and its neighbors to attempt to implement the trail plans indicated in the plan. The state's Iron Belle Trail passing through the township will be the township's focus.
- The *Arenac County Blue Water Development Plan* has been incorporated into this plan by reference. The township will work with the Saginaw Bay Water Trail Alliance, Saginaw Bay Resource, Conservation and Development, the Michigan Department of Natural Resources and others to implement the trail sites identified in the plan.
- Possible expansion of office space in the township hall plus other township hall improvements or a new township hall.

D. Future Land Use

In order to effect the goals of this plan, the lands of Standish Township are divided into future land use districts. Each district has a primary intent and purpose, as the names suggest, yet the uses and landscape of the districts may overlap and vary regardless of the boundaries set forth. The districts are:

Forest & Recreation,
Agricultural Preservation,
Residential,
Lakeshore,
General Commercial,
Local Services Commercial.

The **Forest & Recreation District** contains state and private forest areas, shore lands, riparian wetlands, and other lowlands. The primary land cover and uses of this district are intended to be forests, recreation and tourist developments and large private land holdings with lodges or single-family dwellings. Of particular concern in this district are forest health, river quality, and the maintenance of the bay and its shore lands.

The **Agriculture Preservation District** contains most of the agricultural lands within the Township. The intent of the district is to protect and foster farming where it is feasible and to allow other uses compatible with this purpose. These other uses include agricultural and other rural businesses and residential dwellings on five acres or larger parcels.

The **Residential District** is established primarily for single-family residential purposes as historically practiced. Residential lots in this district should be a

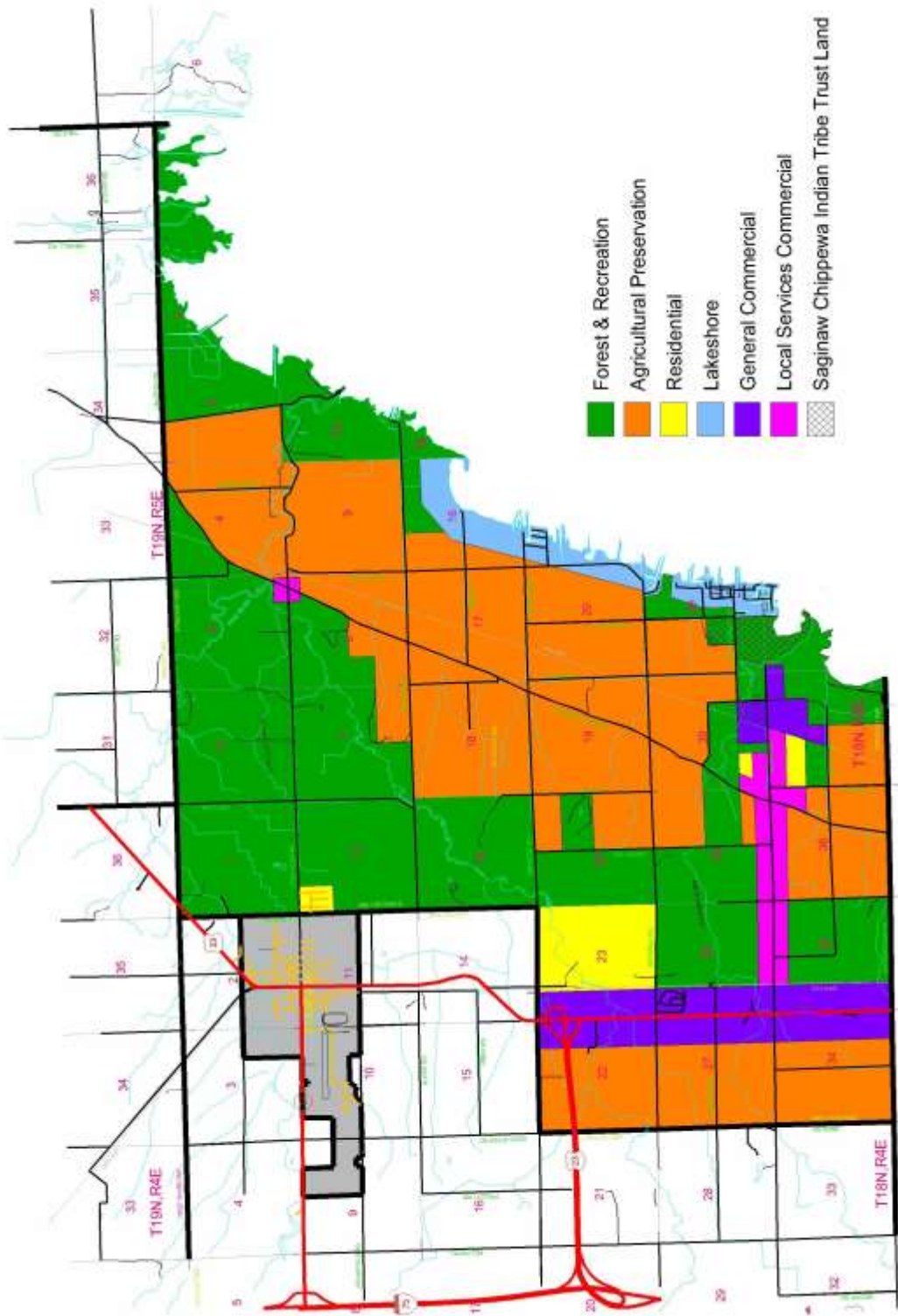
minimum of one-half acre subject to availability of sanitary sewer service.

The **Lakeshore District** is the area along the Saginaw Bay that currently has a wide diversity of uses and parcel sizes. It is intended that lands may continue to be developed with a mix of uses, commercial and residential. These uses may include condominium developments, rental cottages, and waterfront businesses. The uses may only be accomplished with proper regard for the conservation of the environmental attributes of the district, the township, and for existing and future family residences.

The **General Commercial District** provides for the expansion of economic activity in Standish Township. The areas proposed for new potential business enterprises include the M-13 corridor and areas around the Saganing Eagles Landing Casino and the Eagle Bay Marina.

The **Local Services Commercial District** allows for an area which can provide goods and services for local residents and visitors and travelers in tourist areas. The enterprises intended for the district are relatively small and do not necessitate either public water and sewer services, nor extensive changes to roadways.

The Township encourages industrial uses to locate in the cities of Standish or Pinconning. However, **Industrial Type Uses** may be allowed as special uses in the General Commercial District where public services warrant their establishment.



Standish Township Future Land Use Map

(See page 2-30 for Tribal Land Map)