
Tri- Community Master Plan

City of Saugatuck,
Saugatuck
Township, and the
City of the Village of
Douglas

2016

Contents

Chapter 1: Goals & Policies: The Areawide Policy Plan

Chapter 2: Demographics

Chapter 3: Economics

Chapter 4: Natural Resources and the Environment

Chapter 5: Existing Land Cover and Use

Chapter 6: Public Facilities and Services

Chapter 7: Recreation and Open Space

Chapter 8: Waterfront

Chapter 9: Growth and Development Trends

Chapter 10: Future Land Use

Chapter 11: Zoning Plan

Chapter 12: Intergovernmental Cooperation

Chapter 13: Strategies for Implementation

Appendix: Resolutions of Adoption

Chapter 1

GOALS & POLICIES: THE AREAWIDE POLICY PLAN

INTRODUCTION

Goals and policies are the foundation of a master plan. They address the key problems and opportunities of a community and help establish a direction and strategies for future community development and growth. Goals establish general direction. The policies embodied in this Plan were prepared through two extensive processes that included leadership surveys, public opinion surveys, meetings with local officials, and area wide town meetings.

The first process took place from 1987 and 1989 when the first Tri-Community Plan was prepared. The second process was undertaken in 2003 and 2004 when this Plan was extensively updated. The Plan was revised and reviewed by the Tri-Community Planning Committee and adopted by each jurisdiction in 2016. In 2005 the City of Saugatuck adopted a “Saugatuck Peninsula Area Plan” to determine future land uses and zoning in parts of the City along the shoreline of the Kalamazoo River and Lake Michigan including Lakeshore Drive, Campbell Road and Park Street. During this period the Saugatuck Township also adopted Central Lakeshore Sub Area Master Plan for areas along Lakeshore Drive in Section 20 and 29 of the Township lying west of I-196.

The first step in both the 1987 and 2003 processes for the Tri-Community Master Plan was a survey of area leaders – including members of each planning commission, elected officials, prominent members of the private sector. Leaders were asked their views on the major problems and opportunities facing their jurisdiction and the Tri-Communities, and the results were tabulated and presented to each local government. These results served as the basis for initiating a public opinion survey.

The second step in both processes was the solicitation of citizen views on area wide planning issues through public opinion surveys mailed to every property owner in the Tri-Community area and distributed in many rental units. Survey questions were prepared for each jurisdiction through consultations with the joint planning committee and each individual planning commission. Dr. Brent Steel, Oakland University, conducted and tabulated the first survey while Dr. David Hartman of Western Michigan University’s Kercher Center for Social Research conducted and tabulated the second survey.

The response rate to the first survey of 43% and 40% to the second survey was very high considering the length (about 1 hour completion time) and type of survey: thus responses are believed to represent the majority view in each community. Most respondents were homeowners in their mid-fifties, registered to vote, who are long-term residents and plan to live in the area for ten or more years. Survey results are shown in Appendix A.

Results of the citizen opinion survey and leadership survey were used to identify issues for discussion at the first town meeting in 1987. This meeting was a “futuring” session where participants were asked to imagine how they would like their community to be in the year 2000. Participants were separated into groups and asked to prepare a list of “prouds” and “sorries” in their community, and things from the past which they would like to preserve. The lists were compared and then groups were established according to

topic area and were asked to imagine that element of their community in the year 2000. This futuring process identified key issues and community elements which were pulled together to form a vision and direction for the Tri-Communities in the year 2000. In 2004, the results of the citizen opinion survey were used to identify key issues for discussion at a Town Meeting where participants were polled on their preferred option for addressing each issue. This Plan uses 2025 as the target year.

A draft policy-based plan, with defined goals and policies, was then prepared based on this Town Meeting process and the survey results. The draft was refined through a series of meetings with area officials and then presented to area citizens in a second town meeting. Citizen comments were reviewed by officials from each community and incorporated into the Tri-Community Master Plan.

Data and trends in the Tri-Community area were also analyzed. This analysis supported the direction of the 1989 Comprehensive Plan, as well as the updated Plan.

Thus, the broad based input of area officials, leaders, and citizens, plus detailed analysis of local trends and land use characteristics have formed the goals and policies that comprise the policy portion of this Master Plan. These joint goals and policies will serve as a guide for land use and infrastructure decisions in Saugatuck Township, the City of Saugatuck, and the City of the Village of Douglas. With time, some elements may need to be changed, others added, and still others removed from the list. Before amendatory action is taken, however, the impact of the proposed changes should be considered comprehensively in relation to the entire Plan.

These joint goals and policies are premised on a pledge by Saugatuck Township, the City of Saugatuck, and the City of the Village of Douglas to mutually cooperate in guiding future development to advance a common vision. It is intended that these goals and policies be consulted when considering future land use decisions within an individual jurisdiction, as well as those decisions that affect the interests of more than one jurisdiction.

OVERARCHING GOAL

It is the long term goal of this joint Master Plan to improve the quality of life for all citizens in the Tri-Communities through implementation of policies and best practices that preserve the existing small town/rural character of the area and that achieve sustainable development – that is, which meet the needs of the present generation without compromising the ability of future generations to meet their needs.

Article I. COMMUNITY CHARACTER

Goal: Retain and enhance the quiet, scenic, and small town/rural character of the Tri-Communities.

Policy: Preserve the character of the Tri-Communities area by encouraging land uses and densities of development that are consistent with maintaining its small town/rural nature.

Goal: Preserve the established character of neighborhoods and rural areas within the Tri-Communities.

Policy: Encourage architectural and site design that complements, rather than detracts from existing development on neighboring parcels.

Policy: Encourage the preservation and restoration of historic structures.

Policy: Preserve the character of the area by encouraging land uses and densities/intensities of development which are consistent with and complement the character, economic base, and image of the area.

Policy: Improve the appearance of entrances into the Township and the City of the Village of Douglas, and maintain the entrances to the City of Saugatuck, through landscape designs, signs, and land development which promote the vitality and character of each community, without unnecessary clutter or safety hazards.

Photo 1-1
Small Town, Scenic Character



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Policy: Manage the trees lining streets in the City and City of the Village to provide a continuous green canopy. Plant indigenous trees along Blue Star Highway and maintain them along other roads in the Township.

Policy: Replace post mature trees through an aggressive planting program that will maintain aesthetically pleasing, tree-lined streets and roads throughout the Tri-Community area.

Policy: Discourage the development of “bigfoot” homes that restrict views, block light and the free flow of air for neighbors, detract from the charm of a neighborhood, and serve as a catalyst for sending excess stormwater runoff onto abutting properties and into lakes and streams.

Policy: Explore the possibility of establishing uniform sign standards in all three jurisdictions.

Policy: Discourage designs which would block significant views and vistas.

Policy: Increase enforcement of existing ordinances and regulations to better preserve the established character of the Tri-Communities and promote the goals and policies of this Plan.

GROWTH MANAGEMENT

Goal: Guide development in a manner which is orderly, consistent with the planned expansion of public facilities, and strives to preserve the scenic beauty, foster the wise use of natural resources, protect environmentally sensitive areas, and enhance the special character of the Tri-Communities.

Policy: Encourage development in locations that are consistent with the capacity of existing and planned public services and facilities, and are cost effective in relation to service extensions.

Policy: Encourage new development to be in compact increments adjacent to existing development.

Policy: Review all plans by other public entities for expansion and improvement of existing road and street networks for impacts on growth patterns and for consistency with the goals and policies of this Plan.

Policy: Encourage new development wherever possible to contribute to achieving the ten Tenets of Smart Growth as detailed in the Michigan Land Use Leadership Council Report and reproduced in the sidebar below.

Policy: Consider the impact of land use planning and zoning changes on the other jurisdiction(s), and discuss proposed changes with the affected jurisdiction(s) prior to making such changes. A common procedure for such communication shall be established and followed.

Policy: Examine the feasibility and benefits of a single planning commission for the Tri-Communities.

Policy: Examine the feasibility and benefits of a common zoning ordinance (or at least uniform zoning standards) in the Tri-Communities.

Ten Tenets of Smart Growth:

1. Create a range of housing opportunities and choices.
2. Create walkable neighborhoods.
3. Encourage community and stakeholder collaboration.
4. Foster distinctive, attractive communities with a strong sense of place.
5. Make development decisions predictable, fair and cost-effective.
6. Mix land uses.
7. Preserve open space, farmland, natural beauty and critical environmental areas.
8. Provide a variety of transportation choices.
9. Strengthen and direct development towards existing communities.
10. Take advantage of compact development design.

LAND USE AND COMMUNITY FACILITIES

Goal: Promote the balanced, efficient, and economical use of land in a manner which minimizes land use conflicts within and across municipal borders, and provides for a wide range of land uses in appropriate locations to meet the diverse needs of area residents.

Policy: Insure compatible land use planning and zoning across municipal borders and minimize land use conflicts by separating incompatible uses and requiring buffers where necessary.

Policy: Discourage sprawl and scattered development through planned expansion of roads and public utilities and through zoning regulations which limit intensive development to areas where adequate public services are available.

Policy: Provide for necessary community facilities (e.g. schools, garages, fire halls, etc.) consistent with adopted land use plans and long-term capital improvement programs.

Policy: Coordinate Capital Improvement Programming with each of the Tri-Communities.

Policy: Encourage approaches to site design which take into account natural features of the property, such as soils, topography, hydrology, and natural vegetation, and which use the land most effectively and efficiently by maximizing open space, preserving scenic vistas, conserving energy, and pursuing any other public policies identified in this Plan.

Policy: Advise developers during site plan review to contact the Office of the State Archaeologist, Michigan Historical Center in the Department of History, Arts, and Libraries to determine if the project may affect a known archaeological site.

AGRICULTURE

Goal: Maintain a variety of agricultural operations and promote the preservation of existing farms and farmland through coordinated planning and development regulations, public incentives, and educational strategies.

Policy: Preserve prime agricultural land as long as a landowner has a desire to farm the land.

Policy: Encourage cluster zoning in a manner that is compatible with typical agricultural activities and preserves open space.

Policy: Encourage farmers on lands well suited to agriculture to enroll and maintain enrollments on their property in the Michigan Farmland Preservation Act program, as originally provided in Public Act 116 of 1974, as amended.

Policy: Encourage the expansion of specialty farms and related activities which enhance the tourism and recreation potential of the area (e.g. "you pick", farmers markets, farm tours, corn mazes, etc.).

Policy: Discourage the establishment of high density livestock and poultry operations as inconsistent with the agricultural and resort character of the Tri-Communities.

Photo 1-2
Preserve Agricultural Land



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

ECONOMIC DEVELOPMENT

Goal: Strengthen and expand upon the area's economic bases through strategies, which attract new businesses, strengthen existing businesses, and enhance the tourism potential of the area.

Policy: Identify potential sites for industrial development and alternative means of financing necessary public improvements and marketing of the sites (i.e. tax increment financing, special assessments, state grants and loans, etc.).

Policy: Support efforts to foster tourism by preserving the scenic beauty of the environment, expanding recreation opportunities, improving tourist attractions, preserving the historic character of the communities through the preservation of historic structures, expanding cultural and arts opportunities and encouraging development of promotional materials which highlight the attractions of the Tri-Communities.

Policy: Encourage the development of one non-governmental organization that would promote and coordinate the development of all economic activities in the Tri-Communities.

Photo 1-3
Improve Tourist Attractions



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

COMMERCIAL

Goal: Encourage the development of commercial land uses in appropriate locations which serve the current and future needs of residents and tourists, are of a character consistent with community design guidelines, and which promote public safety through prevention of traffic hazards and other threats to public health, safety, and general welfare.

Policy: Encourage new commercial development to locate adjacent to existing commercial areas.

Policy: Encourage the design and location of neighborhood commercial centers in a manner which complements and does not conflict with adjoining residential areas.

Policy: Encourage a compatible and desirable mix of commercial uses.

Policy: Encourage design guidelines which promote similarity in the height and design of storefronts and prevent the creation of structures whose mass is too great for the lot and structures on adjoining lots.

Policy: Along the Blue Star Highway, promote the development of small, commercial centers off the road, rather than lot by lot commercial strips.

Policy: Continue to discourage unsafe and unsightly strip commercial development along the Blue Star Highway through design and landscaping requirements such as berms, planting, shared access and shared parking when possible. Also require large lot frontage and service roads for commercial uses along Blue Star Highway to prevent traffic hazards wherever feasible.

Policy: Encourage landowners to maintain and where necessary improve the condition of commercial structures.

Policy: Develop a comprehensive policy regarding parking (parking requirements for businesses, location of parking lots, shuttle service) which preserves the character of downtown Saugatuck and City of the Village of Douglas while meeting the parking needs of residents, shoppers, visitors and employees, recognizing that maintaining the small town historic ambiance is central to economic viability.

Photo 1-4

Maintain and Improve Commercial Structures



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Policy: Avoid separate parking lots for each business where feasible and encourage centrally placed lots which serve several businesses.

Policy: Encourage continued concentration of tourist oriented businesses in Saugatuck and the City of the Village of Douglas, general commercial businesses in the City of the Village of Douglas and Saugatuck Township, and highway service activities that serve regional markets and passenger vehicles at the highway interchanges.

Policy: Encourage retention of existing downtown businesses in order to preserve those functions within Saugatuck and the City of the Village of Douglas because they are so central to the character and function of those downtowns.

Photo 1-5

Prepare Subarea Plan and Design Concept for Freeway Interchanges



Source: Aaron Sheridan

Policy: Prepare and maintain a subarea plan and design concept for the freeway interchange areas and along Blue Star Highway which identifies appropriate land uses and emphasizes the design guidelines contained in this Plan.

Policy: Improve the downtowns in Saugatuck and the City of the Village of Douglas as funds are available by improving the supply of parking at peak periods, by installing additional public restroom facilities and generally improving the appearance and function of the sidewalks and streets through appropriate benches, flower plantings, lighting, litter pickup and maintenance.

Policy: Encourage the Tri-Communities as a potential home for professional/high tech business and light industry.

Article II. INDUSTRIAL

Goal: Encourage the location of non-polluting light industry in the area without damaging the environment, spoiling the scenic beauty of the area, or overburdening local roads, utilities, or other public services.

Policy: Encourage new industries to locate contiguously to existing industrial areas and in locations with existing or planned sewer, water, electric, and solid waste disposal services to minimize service costs and negative impacts on other land uses.

Policy: Explore the feasibility of and determine the appropriate locations for a small industrial park that will generate jobs and conform to the design guidelines contained in this Plan and to local zoning regulations.

Policy: Implement site plan requirements for light industries which are designed to incorporate generous amounts of open space, attractive landscaping, and buffering from adjacent non-industrial uses.

Policy: Require the separation of industrial sites from residential areas through buffers made up of any combination of parking, commercial or office uses, parks, parkways, open space, or farmland.

CULTURAL/HISTORIC/ARCHAEOLOGICAL

Goal: Encourage planning efforts based on the understanding, knowledge and respect for the Tri-Community's historical and cultural resources.

Policy: Conduct and maintain historic and cultural resource inventories and transfer development rights.

Policy: Collaborate with and encourage local historic and cultural organizations.

Policy: Encourage land use and zoning regulation that complements and encourages historic and cultural growth and use.

Policy: Consider historical and cultural concerns when developing zoning and other public policies.

Goal: Creating strategies to engage arts and culture as vital resources for the quality of life for all members of the community and as a strategy for economic growth.

Policy: Assure that historical and cultural opportunities are promoted for the widest range of participants throughout the Tri-Communities.

Goal: Preserve and maintain structures that serve as significant reminders of the community's social and architectural history and that, through their ability to attract visitors and residents, contribute to the economic and cultural development of the community.

HOUSING/RESIDENTIAL

Goal: Encourage a variety of residential dwelling types in a wide range of prices which are consistent with the needs of a changing population and compatible with the character of existing residences in the vicinity.

Policy: Maintain "rural residential" with a large minimum lot size as the primary residential land use in the Township in those areas where sewer and water are not available or planned.

Photo 1-6
Maintain Rural Residential Housing



Source: Aaron Sheridan

Policy: Explore alternative measures to reduce housing costs and make home ownership more affordable, such as zoning regulations and other programs which are designed to reduce the cost of constructing new housing, provided the exercise of these measures still preserves the character of the area in which the housing is to be built.

Policy: Expansion of existing mobile home parks or construction of new mobile home parks adjacent to existing mobile home parks should be encouraged over the creation of new mobile home parks elsewhere in the Tri-Communities.

Policy: Allow only quiet, low traffic, low intensity home occupations in residential areas to preserve the stability of existing neighborhoods.

Policy: Provide streetlights and sidewalks in residential areas where there is a demonstrated need and according to the ability of residents to help finance such improvements.

Policy: Require absentee homeowners to maintain their properties in a manner that is consistent with the character of the surrounding neighborhood.

Policy: Consider the development of landscaping standards to be applied to all new housing, both in town and in rural areas, that require a minimum level of landscaping be installed if the lot either has no natural trees or shrubs on it or if such natural plant material was eliminated during construction, recognizing the importance of landscaping in preserving the character of a neighborhood or community.

Policy: Encourage the preservation and retention of older homes to maintain community character and history and utilize zoning regulations to prevent homeowners from splitting older homes into multiple family apartment or condominium units.

Photo 1-7
Encourage Preservation of Older Homes



Source: City of Saugatuck

Policy: Allow accessory uses such as garages and pole barns in residential districts subject to height, setback, and location requirements in the local zoning ordinance.

Policy: Discourage the development of high intensity residential uses along the waterfront.

Policy: Explore the eligibility of residents to apply for federal, state or county housing rehabilitation grant funds and encourage eligible landowners to participate in such programs.

SPECIAL ENVIRONMENTS AND OPEN SPACE

Goal: Protect special environments and open spaces, including but not limited to sand dunes, wetlands, and critical wildlife habitat, from the harmful effects of incompatible development activity by limiting the type and intensity of land development in those areas.

Policy: Identify development limitations on special environments which classify environments based on their value to the ecosystem, unique attributes, the presence of endangered plant and wildlife species, and other characteristics deemed significant.

Policy: Devise regulations for land development in special environments which permit development in a manner consistent with identified protection objectives and which complement state and federal regulations for special environments.

Policy: Require development projects deemed appropriate in, compatible with, and adjacent to special environments to mitigate any negative impacts on such environments.

Policy: Encourage acquisition of special environments of significant public value by public agencies or nonprofit conservancy organizations for the purposes of preservation.

Policy: Prepare and maintain a subarea plan for the Oxbow Peninsula including the "Denison Property".

Photo 1-8
Protect Sensitive Environments



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

WATERFRONT

Goal: Protect and enhance the natural aesthetic values and recreation potential of all waterfront areas for the enjoyment of area citizens while recognizing private property rights of waterfront property owners.

Policy: Promote the preservation of open space and natural areas, as well as limited, carefully planned development along the Kalamazoo River, Kalamazoo Lake, Silver Lake, Goshorn Lake, and Lake Michigan and connecting streams, creeks, and drainage ways to protect and enhance the scenic beauty of these waterfront areas.

Policy: Explore the feasibility and benefits of establishing a joint site plan review process among the City of Saugatuck, Saugatuck Township, and the City of the Village of Douglas for regulating development on Kalamazoo Lake and the Kalamazoo River.

Policy: Some waterfront lands may be developed to meet residential and commercial needs, enhance local tax base, and contribute to paying for local public service costs associated with their use and development, consistent with environmental protection policies in this Plan, where such development would contribute to local quality of life.

Policy: Maximize public access, both physically and visually, by acquiring prime waterfront open space whenever feasible.

Photo 1-9

Protect the Aesthetic Values and Recreational Potential of Waterfront Areas



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Policy: Encourage private property owners to grant scenic easements wherever public values dictate the maintenance of visual access to the waterfront and the property is not available for fee simple purchase.

Policy: Limit the height and mass of new development along waterfront areas and preserve setbacks between buildings to maintain visual access and the natural beauty of the waterfront for the broader public.

Policy: Explore the limited conversion of street ends which abut water bodies for use as safe public access to the water for fishing, viewing, and launching of small water crafts.

Policy: Maintain a natural greenbelt along the Kalamazoo River and its tributaries.

RECREATION

Goal: Enhance the well-being of area residents by providing a variety of opportunities for relaxation, rest, activity, and education through a well-balanced system of private and public park and recreational facilities and activities located to serve identified needs of the area.

Policy: Identify and explore opportunities to cooperate with other jurisdictions and agencies, including Allegan County and the Department of Natural Resources Recreation and Camping Division, on recreation projects which would benefit area residents and strengthen the tourism industry.

Policy: Examine the feasibility of, and establish if feasible, a jointly owned and operated community center to serve residents of all ages in the Tri-Communities.

Policy: Examine the feasibility of expanding low cost opportunities for public beach and campground facilities for area citizens with boat launching sites, bike paths, cross-country ski trails, and docks for shore fishing.

Photo 1-10
Enhance Recreational Opportunities



Source: Scott Kierzek, Community Recreation Director

Policy: Promote a system of non-motorized, biking, hiking and cross-country ski trails throughout the Tri-Communities with other jurisdictions or agencies if possible, through the use of local funds, grants and loans, and coordinated long-term capital improvement programming.

Policy: Investigate developing a joint public marina and launch facility where federal and state funding is available to assist with financing such a venture.

Policy: Encourage local government participation in activities designed to enhance the area's seasonal festivals.

Policy: Retain, maintain, and improve all existing publicly owned parks so that they continue to meet the diverse recreation needs of area citizens and tourists through a single Parks Commission.

TRANSPORTATION

Goal: Maintain a safe, effective, and efficient road and street network and improve roads and streets to promote growth in a way that is consistent with land use goals and policies of this Plan.

Policy: Implement traffic controls and design features that will increase the efficiency and safety of major arterials, including but not limited to: traffic signals, deceleration lanes, limiting driveways, minimum standards for driveway spacing, uniform sign regulations, shared or alternate access, left and right turn lanes, and speed limit adjustments.

Policy: Prepare a joint governmental capital improvements program to schedule and prioritize transportation improvements and maintenance.

Policy: Redesign Blue Star Highway as a boulevard between freeway exits #36 and #41 to control access, improve traffic safety and flow, and improve the visual appearance of this highly traveled corridor which provides the principal means of access to each of the three jurisdictions.

Photo 1-11

Maintain a Safe and Effective Transportation System



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Goal: Encourage a wide variety of transportation means, such as walking, biking, and public transportation, to meet the diverse needs of area residents.

Policy: Promote pedestrian and bike travel through a coordinated network of bike paths, trails, sidewalks and non-motorized trails.

Policy: Promote regularly scheduled, affordable, and dependable public transportation to increase the quality of life for those who live in and visit the Tri-Communities thus helping to reduce parking and traffic congestion

Policy: Encourage expansion of the interurban system consistent with municipal means to finance the increased service and identified public need.

WATER AND SEWER

Goal: Ensure a safe and adequate long-term water supply for the area, and environmentally sound sewage treatment, which are efficiently provided and cost effective.

Policy: Provide a reliable supply of safe, clean, and good-tasting drinking water.

Policy: Minimize the potential for groundwater contamination through planning and zoning which is consistent with the capacity and limitations of the land and available services.

Policy: Minimize the potential for diminishment of groundwater flows or levels.

Policy: Ensure carefully timed provision of sewer and water service in the area consistent with the development goals and policies of this Plan.

Policy: Devise alternative mechanisms for financing sewer and water expansions, upgrades and replacements which are financially sound and equitable.

Policy: Ensure that the expansion of sewer and water service into an area is consistent with the planned intensity of land use for that area, and implemented when necessary to meet an identified need in the area rather than on a speculative basis.

Photo 1-12
Ensure a Safe and Adequate Drinking Supply



POLICE, FIRE, AND EMERGENCY SERVICES

Goal: Provide police, fire, and emergency services consistent with public needs and the ability to finance improvements in the most cost effective manner for the Tri-Communities.

Policy: Continue to provide police, fire, and emergency services across the three communities where possible to eliminate overlap in service and expenditures and improve service delivery.

Policy: Continue to maintain 24-hour emergency medical service which serves the Tri-Communities.

SOCIAL SERVICES

Goal: Encourage the delivery of County and private social services in the Tri-Communities to meet the needs of area residents.

Policy: Make available to the Tri-Communities facilities for the local delivery of social services.

WASTE MANAGEMENT

Goal: Ensure the safe, effective, and efficient disposal of solid waste and other toxic substances.

Policy: Encourage the reduction of solid waste through recycling, composting, and waste-to-energy projects.

Policy: Manage disposal of solid waste and location of solid waste facilities in accordance with the **Allegan County Solid Waste Management Plan** prepared under PA 641 of 1978.

Policy: Adopt local site plan review standards for on-site storage and transportation of hazardous waste which require:

- Secondary containment for on-site storage of hazardous waste;
- No transfer of hazardous waste over open ground or water;
- No floor drain discharge to groundwater or public sewer unless approved by the appropriate public entity.

Policy: Mandate sewer hook-up in environmentally sensitive areas where sewer lines are available especially along all waterways.

ENERGY

Goal: Promote site design and building which is energy efficient and encourage energy conservation through good land use planning and wise public building management.

Policy: Encourage developers to provide sidewalks or non-motorized paths in appropriate locations through subdivision and site condominium regulations.

Policy: Encourage higher density residential development near areas with shopping and services to limit the number and length of trips generated from that development.

Policy: Encourage renewable energy projects and uses for commercial, agricultural, industrial, and private use of renewable energy products, conservation, and recycling. This can include such products and processes including Wind Energy Turbines, solar panels, pellet and wood burning stoves, Geo-Thermal (Heat exchanger systems), water auger/tunnel/turbines, public and private advanced fuel vehicles, Bio Mass promotion, composting, green roofs, and any other current or future energy preservation technique.

Chapter 2 DEMOGRAPHICS

INTRODUCTION

This chapter presents information about the size and other characteristics of the population of the City of Saugatuck, Saugatuck Township and the City of the Village of Douglas. It also presents information about how the population in the three communities has changed over time and how it may change in the future. Where possible, information about the Tri-Communities is compared to Allegan County. For some demographic information, the City of the Village of Douglas is grouped with Saugatuck Township because the data was not separated by the US Census.

SUMMARY POINTS

- The area's estimated population as a whole is expected to decrease slightly after a period of growth from 1990 to 2000. Overall population is estimated to have increased 24% since 1990 primarily because of the City of the Village of Douglas and Saugatuck Township population growth trends.
- Household sizes in the Cities are considerably smaller than in the County and Saugatuck Township.
- The number of school-aged children in the study area is significantly less than the county average while the number of "empty-nester" households (persons over 45) is significantly higher than the county. A City of Saugatuck's study indicates 22% of the area's visitors brought children with them.
- The range of difference between the area's most modest and most wealthy households is greater than the gap found in the county overall.
- During the summer, the population nearly triples with visitors and seasonal residents. This is an important part of the area's economy, which is reinforced by the fact that retail trade and real estate sectors provide a higher percentage of employment in the area than for the county overall.
- It is estimated that more than half of the area's seasonal visitors are from outside of Michigan.

POPULATION SIZE

The population of the Tri-Communities was 4,655 persons in 2000, 20% larger than in 1990 and an increase of nearly eight hundred persons. By 2010 the population had increased an additional 446 to 5,101. The population of the City of the Village of Douglas was 1,214 in 2000, an increase of 17% or 174 persons between 1990 and 2000. It increased slightly by 2010 to 1,232. Saugatuck City's population increased by 111 persons between 1990 and 2000 to 1,065 persons, a gain of 12%, but has return to pre-2000 numbers of 925 in 2010. The Saugatuck Township population gained 500 persons to 2,376 persons, a rise of 27%. The trend continued through 2010 with a total population of 2,944. See Table 2-1. The Census Bureau estimates an overall population growth in the Tri-Community of 24% since 1990, but indicates an estimated decrease after gains made from 1990 to 2000. It is estimated that Saugatuck City, the City of the Village of Douglas and the Township will all experience population decreases from 2010 to 2012.

Table 2-1
Decennial Census Populations

Unit	1990	2000	2010	2012 (Estimate)	1990-2012 %CHANGE
Douglas City of Village	1,049	1,214	1,232	1,097	4.5%
Saugatuck City	954	1,065	925	792	-17%
Saugatuck Township	1,876	2,376	2,944	2,934	56%
Total	3,879	4,655	5,101	4,823	24%

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

HOUSEHOLDS

Household characteristics are indicated by the following table. Data is provided for Allegan County as a whole. A household consists of all the people who occupy a housing unit. A house, an apartment or other group of rooms, or a single room, is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live with any other persons in the structure and there is direct access from the outside or through a common hall. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters.

The term "size of household" includes all the people occupying a housing unit. "Size of family" includes the family householder and all other people in the living quarters who are related to the householder by birth, marriage, or adoption. "Size of related subfamily" includes the husband and wife or the lone parent and their never-married sons and daughters under 18 years of age. "Size of unrelated subfamily" includes the reference person and all other members related to the reference person. If a family has a related subfamily among its members, the size of the family includes the members of the related subfamily.

The City of the Village of Douglas and Saugatuck City together account for almost half of Tri-Community households, at roughly 24.54% and 19.33% respectively, with Saugatuck Township accounting for the remaining 56.12% of households.

**Table 2-2
HOUSEHOLDS**

Unit	Total Households	% of Tri-Community	% of Allegan County
Douglas City of the Village	523	24.54%	.012%
Saugatuck City	412	19.33%	.0098%
Saugatuck Township	1,196	56.12%	2.85%
Tri-Communities	2,131	100%	2.8718%
Allegan County	41,958	N/A	100%

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

Table 2-3 below provides detail on household size. The term "size of household" includes all the people occupying a housing unit. "Size of family" includes the family householder and all other people in the living quarters who are related to the householder by birth, marriage, or adoption. "Size of related subfamily" includes the husband and wife or the lone parent and their never-married sons and daughters under 18 years of age. "Size of unrelated subfamily" includes the reference person and all other members related to the reference person. If a family has a related subfamily among its members, the size of the family includes the members of the related subfamily.

A family is a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family. Beginning with the 1980 Current Population Survey, unrelated subfamilies (referred to in the past as secondary families) are no longer included in the count of families, nor are the members of unrelated subfamilies included in the count of family members. The number of families is equal to the number of family households, however, the count of family members differs from the count of family household members because family household members include any non-relatives living in the household. The average household size and average family size for households in the Tri-Community is less than those of Allegan County as a whole. Average household size in Saugatuck City and the City of the Village of Douglas are similar at 1.80 and 1.82, less than the Township and Allegan County at 2.44 and 2.65 respectively.

Table 2-3
HOUSEHOLD SIZE

Unit	Average Household Size	Average Family Size
Douglas City of the Village	1.99	2.62
Saugatuck City	1.91	2.47
Saugatuck Township	2.44	2.96
Allegan County	2.65	3.05

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

AGE

The age of the population is an important factor in identifying planning and zoning needs. The 2008-2012 American Community Survey 5 Year Estimates provide the table data. The following table provides a breakdown of various age categories for the study area and Allegan County as a whole.

The information indicates:

- The percentage of school age residents ages 5-19 for Tri-Community is significantly less than Allegan County as a whole: 19 percent compared to 28.5 percent, respectively.
- The percentage of residents 55-64 years and older is significantly greater in the Tri-Community than Allegan County as a whole; 20 percent compared to 12.8 percent respectively.
- Table data is provided from the US Census Bureau 2008-2012 American Community Survey 5-Year Estimates.

Table 2-4
AGE DISTRIBUTION – NUMBER AND PERCENT

Age	Douglas (1,097)	Saugatuck (792)	Saugatuck Twp. (2,934)	Tri-Communities (4,821)	Allegan County (111,589)
0-4	52(4.7%)	21(2.7%)	73(2.5%)	146(3%)	7,384 (6.7%)
5-19	134(12.2%)	103(13%)	675(23%)	912(19%)	31,840 (28.5%)
20-24	29(2.6%)	20(2.5%)	23(0.8%)	72(1.5%)	5,818 (5.2%)
25-34	61(3.4%)	74(9.3%)	138(4.7%)	273(6%)	12,380 (11.1%)
35-44	75(6.8%)	62(7.8%)	552(18.8%)	689(14%)	14,828 (11.1%)

45-54	189(17.2%)	111(14%)	587(20%)	887(18%)	17,809(16%)
55-64	263(24%)	246(31%)	440(15%)	949(20%)	14,189 (12.8%)
65+	318(29%)	158(20%)	469(16%)	945(20%)	14,725 (13.2%)

Note: Percentages are rounded. Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

AGE AND RACE

The following table provides a breakdown of gender and race. Overall proportion of population of males to females in the Tri-Communities is relatively even. The same holds true for Allegan County as a whole.

The racial character of the Tri-Communities, as well as Allegan County as a whole, indicates a population largely classified as “White.” The Tri-Communities has a smaller percentage of non-white residents than does Allegan County as a whole.

Table 2-5
GENDER AND RACE BREAKDOWNS

Unit	2012 Gender		2012 Race					
	Male	Female	White	Black	Am. Indian/ Alaskan	Asian	Native Hawaiian	Other
Douglas City of the Village	561 (51.1%)	536 (48.9%)	1,085 (98.9%)	0 (0%)	0 (0%)	4 (0.4%)	0	5 (0.5%)
Saugatuck City	349 (50.4%)	443 (49.5%)	763 (95.6%)	13 (0.6%)	0 (0.6%)	3 (0.4%)	0	9 (0.9%)
Saugatuck Township	1,616 (55.1%)	1,318 (44.1%)	2,820 (96.1%)	6 (0.2%)	29 (0.4%)	21 (0.7%)	0	39 (1.3%)
Tri-Community	2,526 (52.3%)	2,297 (47.6%)	4,668 (96.8%)	19 (0.4%)	29 (0.6%)	29 (0.6%)	0	69 (1.4%)
Allegan County	55,423 (49.7%)	56,166 (50.3%)	104,388 (93.5%)	1,383 (1.2%)	715 (0.6%)	765 (0.7%)	0	2,984 (2.7%)

Note: Percentages are rounded. Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

HOUSEHOLD INCOME

The table provides a breakdown of household income, including median household income and an income spread by select category. Compared to Allegan County as whole, the Tri-Communities exhibit a slightly greater percentage of households with lower incomes. Conversely, the area also has a greater percentage of households with incomes of \$100,000 and above, compared to Allegan County.

Table 2-6
HOUSEHOLD INCOME

Unit	Median HH Income	Less than \$15,000	\$15,000 to \$24,999	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 and above
Douglas City of the Village	\$40,598	69(13.2%)	98(18.7%)	156 (29.9%)	114 (21.8%)	86(16.4%)
Saugatuck City	\$58,125	83(20.2%)	35(8.5%)	42(10.2%)	136 (33.8%)	113 (27.5%)
Saugatuck Township	\$61,419	86(7.2%)	68(5.7%)	308(25.7%)	440(36.8%)	294 (24.5%)
Tri-Community	\$58,125	238(11.1%)	201(9.4%)	506(23.8%)	690 (32.4%)	493 (23.2%)
Allegan County	\$51,030	4,570 (10.9%)	4,338 (10.3%)	11,604 (27.7%)	15,070 (35.9%)	6,379 (15.3%)

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

POVERTY LEVEL FAMILIES

The following table provides detail on the number of the total number of families for the Township and the cities as classified, and the number in the past 12 months that are below the poverty level. As indicated, each of the jurisdictions possesses a slightly higher percent of poverty level status families than Allegan County as a whole, when compared with the area's relatively high percentage of higher income. The result indicates greater disparity in wealth than within Allegan County as a whole.

Table 2-7
POVERTY LEVEL STATUS OF TOTAL FAMILIES

Unit	Families	At Poverty	%
Douglas City of the Village	260	6	2.3%
Saugatuck City	234	32	13.7%
Saugatuck Township	823	38	4.6%
Allegan County	<u>30,786</u>	<u>3,017</u>	<u>9.8%</u>

Note: Percent reflects that percent of total families per unit.

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

SPECIAL NEEDS RESIDENTS

Special needs residents include, among others: the elderly; persons physically or mentally challenged; persons visually or hearing challenged; persons and/or families in poverty; and, other residents having special or unique needs. According to the U.S. Census Bureau, about one out of every dozen U.S. children and teenagers has a physical or mental disability.

Based on contact with area health care, educational, social and other agency organizations, it is roughly estimated 2 to 5 percent of the Tri-Community entire population experience some level of special need. These figures should guide planners to encompass the special needs of families in the Tri-Community while developing planning and zoning in the Tri-Community.

SEASONAL HOUSING POPULATION

A seasonal influx of cottage owners, visitors, and boaters is estimated to virtually double the permanent population of the recreational areas in the summer season. Fall and spring see more of the part time residents too. While it is difficult to be precise on the seasonal population, the next table offers insight into the magnitude of increase during spring, summer, and fall. Note that these figures are only for people who are residents for part of the year. Day visitors on summer weekends are estimated to add another 4,000 or more to the population. According to 2000 Seasonal Housing data the Saugatuck-Douglas area has roughly 507 transient rooms available for overnight guests, not including the many seasonal/vacation rental homes.

A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

Table 2-8
HOUSING UNITS

Community	1990	2000	1990-2000 % Change	2000 Housing Units	Seasonal % of Total 2000	2012 Housing Units	2000-2010 % Change
Douglas City of the Village	184	217	18%	853	25.4%	1,004	17%
Saugatuck City	287	319	11%	928	34.4%	896	-3.4%
Saugatuck Township	180	197	9%	1,236	15.9%	1,749	41.5%
Tri-Community Area	651	733	13%	3,017	24.3%	3,649	20.9%

Allegan County	2,730	3,154	16%	43,292	7.3%	49,388	14%
----------------	-------	-------	-----	--------	------	--------	-----

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

Table 2-9

ESTIMATED SEASONAL RESIDENTS

Dwelling Type	Number of Units	Population/Unit	Total Population
Seasonal Homes	733	2 (2)	1,466
Large Boats	498	2	996
Campground Sites	223	4	488 (3)
Overnight Lodging	507	2	1,014
			4,126
Notes:			
1) Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates			
2) Based on the average persons per household of the project area as secured from the US Census, 2010			
3) Based on an average 55% campsite occupancy rate.			

VISTOR PROFILE

In 2002 the City of Saugatuck completed a strategic plan for purposes of future growth and development and efforts involved an examination of local tourism and public opinion. The following data was secured from the plan's survey of visitors to the area, and provides useful information considered applicable to each of the Tri-Communities when considering economic and recreational impacts on the area.

- State of Residence - Michigan (42%), Illinois (30%), Indiana (11%), and Ohio (12%)
- Income - 38% had incomes of \$100,000 or greater.
- Children - 22% of those visiting brought children.
- Lodging - Bed and Breakfast (70%), hotel/motel (25%), and cottage or RV park (5%) (Note: at the time of the Plan's development, vacation/seasonal rental homes were not included.)
- Activities - beach (40%), dune rides (12%), and boating (11%)
Spending Patterns - \$500 to \$599 (median range), 15% spend +\$1,000
- Likes - Shops (39%), water (19%), restaurants (16%), and beaches/scenic beauty (13% each)
- Dislikes - Parking (22%), traffic (5%), early closing of shops (5%).

EMPLOYMENT

The following table provides a breakdown of employment for the project area. For comparative purposes, the percentage of employment for Allegan County as a whole is also shown. Indicative of the project areas tourism base, employment in the categories of retail trade; real estate; and arts, entertainment, lodging, and food exceed the county's overall percentages for similar employment.

Table 2-10
EMPLOYMENT BY INDUSTRY

Category	Number	Project Area Percent of Total Area	Allegan County Percent of Total County
Farm/Ag/Forestry/Fisheries	12	0.3	2.9
Construction	174	5.6	7.3
Manufacturing	831	26.7	32.6
Wholesale Trade	68	2.2	4.1
Retail Trade	468	15.1	11.0
Transportation and Public Utilities	131	4.2	4.1
Information	56	1.8	1.2
<i>Employment by Industry Continued:</i>			
Finance/Insurance/Real Estate	242	7.8	3.7
Prof/Scientific/Admin/Man.	217	6.9	5.2
Edu/Health/Social Services	350	11.3	15.4
Arts/Entertainment/ Recreation/Lodging/Food	345	11.1	6.0
Other Services (except Admin)	160	5.1	4.2

Public Administration	54	1.7	2.0
Note: Percentages are rounded. Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates			

The following table offers a breakdown of employment by occupation. Occupational percentages are also provided for Allegan County as a whole. It should be noted that employment statistics for seasonal residents are not included in these figures. Additionally, many residents of the area may be retirees.

Table 2-11
EMPLOYMENT BY OCCUPATION

Occupation	Number	Project Area Percent of Total Area	Allegan County Percent of Total County
Management/Prof. Related	897	28	24.0
Services	457	14.7	13.2
Sales/Office	813	26.2	22.1
Farm/Fish/Forestry	4	0.1	1.7
Construction/Extraction	266	8.6	11.3
Production/ Transportation	671	21.6	27.7
Note: Percentages are rounded. Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates			

Chapter 3 ECONOMICS

INTRODUCTION

This chapter discusses characteristics of the Tri-Community economy, including median income, housing value, state equalized value of property, recent building permit activity, employment, and workforce characteristics.

ECONOMIC BASE

The primary reasons people visit or live in the three communities are to enjoy the scenery and recreational opportunities and to live in a picturesque, safe place while they commute to nearby (or distant) urban centers. Beach recreation, boating and other water activities, shopping, art galleries and enjoying the scenery are the primary attractions for both tourists and year-around residents. While agriculture, industry and tourism are important economic sectors represented in the Tri-Communities, tourism is king. The impact of travel on Allegan County was estimated at over \$98 million in 1996, the last time an estimate was made (Allegan County Tourism Profile, Tourism Resource Center, Michigan State University). This is based in part on an estimated 1.8 million pleasure trip nights. Due to the high relative importance of the Tri-Communities in the tourism economy of Allegan County, the Tri-Communities share of the County travel dollar should be large.

INCOME

The median household income for Tri-Communities is estimated at \$58,125 in 2012. This was higher than that of Allegan County at \$51,030. Median household income increased from \$24,022 to \$40,598 in the City of the Village of Douglas; Saugatuck Township from \$30,023 to \$61,419; and Saugatuck City from \$23,792 to \$58,125. All areas increased in household income significantly from 1990 to 2012 with Saugatuck City's household income more than doubling at 144.30%.

Table 3-1
Tri-Community Median Household Income

Community	1990	2000	2012	Total Change 1990-2012	% Change 1990-2012
Douglas City of the Village	\$24,022	\$41,250	\$40,598	\$16,576	69.00%
Saugatuck City	\$23,792	\$44,318	\$58,125	\$34,333	144.30%
Saugatuck Township	\$30,023	\$43,771	\$61,419	\$31,396	104.57%
Tri-Community	\$24,022	\$44,318	\$58,125	\$34,103	141.97%
Allegan County	\$30,596	\$45,813	\$51,030	\$20,434	66.79%

Source: US Census 2010: 2008-2012 American Community Survey 5 Year Estimates

HOUSE VALUE

Housing is either very valuable in the Tri-Communities or very expensive, depending on your perspective. The Median house value for the Tri-Communities is estimated at \$260,900 in 2012. The value was the highest in Saugatuck City at \$321,900, then Saugatuck Township at 252,300 and then the City of the Village of Douglas with \$208,500. These values were substantially higher than the estimated median for Allegan County of \$142,400 in 2012.

Table 3-2
Tri-Community Median Home Value

Community	1990	2000	2012	Total Change 1990-2012	% Change 1990-2012
Douglas City of the Village	\$99,900	\$175,000	\$208,500	\$75,100	75.17%
Saugatuck City	\$99,900	\$184,400	\$321,900	\$84,500	84.58%
Saugatuck Township	\$94,900	\$161,700	\$252,300	\$66,800	70.38%
Tri-Community (Average)	\$98,233	\$175,000	\$252,300	\$154,067	156.84%
Allegan County	\$59,300	\$115,500	\$142,400	\$83,100	140.13%

Source: US Census: 2008-2012 American Community Survey 5-Year estimates

High home value brings attractive returns on investment, but also prevents many from buying homes in the community, including part-time and seasonal workers typically needed in a tourist or recreational area and young adults with moderate incomes. High property values can provide communities with substantial tax revenues, but can also make property owners less willing to support millage increases. High property values in the City and Village can place additional development pressure for lower cost housing on the more rural parts of the Township where land values and taxes are lower, followed by the demand to extend public services.

SEV

State Equalized Value (SEV) is a measure of taxable value of real property in a community according to a set of State rules that seek to reflect 50% of true cash value. Real property in the agriculture, industrial, commercial and residential tax classes is reported in Tables 3-5 and 3-6 for 1995 and 2003 and 2012 in the three communities separately and as a total for the Tri-Communities. SEV for the City of the Village of Douglas is included with Saugatuck Township from 1995 to 2003. Agriculture property and industrial property were each very small portions of the SEV of real property in 1995, 2003 and 2012, both tax classes dropping below 2% of total real property in the Tri-Communities by 2012. Industrial property disappeared entirely from Saugatuck City by 2003, leaving only commercial and residential property classes in the City. Commercial SEV in the Tri-Communities was 17.4% of total SEV in 1995, but declined to 15.6% in 2003. At the same time, residential SEV in the Tri-Communities rose slightly from 78.4% to 81.8% of total SEV, to remain the dominate tax class. Total SEV was \$295,232,508 in the Tri-Communities in 2003, and increased to \$633,808,400 in 2012.

Table 3-3
Tri-Community State Equalized Value, 1995 and 2003 and 2012

	Agriculture	% of Total	Residential	% of Total
--	--------------------	-------------------	--------------------	-------------------

1995

Saugatuck City	\$0		\$35,672,256	69.3%
Saugatuck Township & Douglas City of the Village	\$3,408,888	3.0%	\$92,466,550	82.6%
Tri-Communities	\$3,408,888	2.1%	\$128,138,806	78.4%

2003

Saugatuck City	\$0		\$65,960,665	76.9%
Saugatuck Township & Douglas City of the Village	\$4,080,518	1.9%	\$175,505,152	83.8%
Tri-Communities	\$4,080,518	1.4%	\$241,465,817	81.8%

2012

Saugatuck City	\$0	0%	\$120,329,500	75.84%
Saugatuck Township	\$13,134,400	4.07%	\$297,492,800	92.23%
Douglas City of the Village	\$0	0%	\$127,470,800	83.53%
Tri-Communities	\$13,134,400	2.07%	\$545,293,100	86.03%

Source: Michigan Department of Treasury (Township and Douglas Village combined (L-4022))

Table 3-4
Tri-Community State Equalized Value, 1995 and 2003 and 2013

	Commercial	% of Total	Industrial	% of Total	Total Real Property
--	-------------------	-------------------	-------------------	-------------------	----------------------------

1995

Saugatuck City	\$15,005,710	29.2%	\$789,750	1.5%	\$51,467,716
Saugatuck Township & Douglas City of the Village	\$13,380,300	11.9%	\$2,742,300	2.4%	\$111,998,038
Tri-Communities	\$28,386,010	17.4%	\$3,532,050	2.2%	\$163,465,754

2003

Saugatuck City	\$19,760,433	23.1%	\$0	0.0%	\$85,721,098
Saugatuck Township & Douglas City of the Village	\$26,411,437	12.6%	\$3,514,303	1.70%	\$209,511,410
Tri-Communities	\$46,171,870	15.64%	\$3,514,303	1.19%	\$295,232,508

Source: Michigan Department of Treasury (L-4022)

2012

Saugatuck City	\$38,333,300	24.16%	\$0	0.00%	\$158,662,800
Saugatuck Township	\$13,134,400	4.07%	\$326,800	0.10%	\$322,543,900
Douglas City of the Village	\$23,711,300	15.54%	\$1,419,600	0.93%	\$152,601,700
Tri-Communities	\$75,179,000	11.86%	\$1,746,400	0.28%	\$633,808,400

Source: Michigan Department of Treasury (L-4022)

BUILDING PERMITS

The number of building permits issued by a community is an indicator of commercial, industrial and residential building activity. Table 3-6 shows that the three communities have averaged about **86** new structures per year from 2000 to 2003, with the exception of 2002 when there was a spike to **113** new structure permits. Most of the activity was in Saugatuck Township. Building activity had significantly decreased by 2012 with 0 new homes built in the City of Saugatuck, 6 in the City of the Village of Douglas and 20 in Saugatuck Township. The Township had the largest decrease in permits dropping from 51 to 20 between 2003 and 2012. See Table 3-6.

Table 3-5
**Tri-Community Number of Building Permits
New Structures, 2000-2003 and 2012**

Community	2000	2001	2002	2003	2012
City of the Village Douglas	4*	12*	32	14	6
City of Saugatuck	17	2	10	4	0
Saugatuck Township	62	65	71	51	20
Total	83	79	113	69	26

Source: City of Douglas, City of Saugatuck and Saugatuck Township.

**During the period May 24 2000 to March 30, 2001, building permits were issued by the State of Michigan and not the City of Douglas. The number of permits issued by the State of Michigan during this period was not available. It is likely that between 10 and 20 building permits were issued in Douglas during this period. If 15 were used as the number, then the total in 2000 would be 130 and the total in 2001 would be 132.*

The 2012 average rate of building was much lower than 2000-2003, due to the recessed housing market starting in roughly 2008, with only 6 new homes in the City of the Village of Douglas and 20 in the Township. An earlier version of this Plan projected Tri-Communities households? to grow to 3,900 by 2020, which is no longer likely. Both Saugatuck Township and the City of the Village of Douglas have enough undeveloped land to accommodate growth, while building activity in the City of Saugatuck may focus on remodeling.

LABOR FORCE

According to the US Census: 2008-2012 American Community Survey 5-Year estimates the labor force for Saugatuck Township numbered 1,494 in 2012 and 406 for Saugatuck City and 456 in the City of the Village of Douglas. The unemployment rate was 9.4% in Saugatuck Township and 10.6% in Saugatuck City. See Table 3-3.

Table 3-6
Tri-Community Labor Force and Unemployment Rate, 2012

Community	Labor Force 2012 Avg.	Unemployment Rate, 2012 Avg.
Douglas City of the Village	456	4.6%
Saugatuck City	406	10.6%
Saugatuck Township	1,494	9.4%
Allegan County	55,387	8.7%

Source: US Census: 2008-2012 American Community Survey 5-Year estimates

EMPLOYERS

Of the employers listed the two largest are the Saugatuck School District with 72 full time employees and Saugatuck Brewing Company with 50 full time and 20 part time employees. Of the variety of employers in the Tri-Communities some include manufacturing, marine services, food service, public employers and others. Table 3-4 lists many of the major employers, but certainly not all employers. Many of the employees are part-time or seasonal, reflecting the high activity of the summer season.

Table 3-7
Tri-Community Major Employers and Number of Employees, 2014

	Full Time/ Year Around	Part Time/ Seasonal	Total Employees
City of the Village of Douglas			
Douglas Marine	NP	NP	30
Enterprise Hinge	NP	NP	12
Tower Marine	NP	NP	22
Saugatuck Brewing Company	50	20	70
Demonds SuperValu Grocery	9	26	35
City of Saugatuck			
Coral Gables	4	50	54
Butler Restaurant	4	50	54
Marros Restaurant	0	50	50
Saugatuck Schools	72	0	72
Mermaid Restaurant	4	30	34
Toulouse Restaurant	4	20	24
Saugatuck Drug Store	4	8	12
Saugatuck Yacht Service	3	8	11

City of Saugatuck	8	0	8
Saugatuck Township			
Clearbrook Golf Course and Restaurant	15	40	55
Ravines Golf Course	3	31	34
Spectators	30	NP	30
Best Western Hotel	5	10	15
Total			622

Source: City of the Village of Douglas, Saugatuck Township and City of Saugatuck
www.mischooldata.org
 NP = Not Provided Separately

Chapter 4 NATURAL RESOURCES AND THE ENVIRONMENT

INTRODUCTION

This chapter discusses the environment of the Tri-Communities, such as climate and natural features, including topography, soils, woodlands and wetlands, lakes, rivers and shorelines. It also discusses how these features can affect development in the community and how important natural features can be protected.

CLIMATE

Weather conditions affect the community's economic base. Variations in average conditions, especially during the summer months, can cause fluctuations in tourism and outdoor recreation activities, upon which the local economy is dependent. Prevailing winds determine lakeshore and sand dune erosion patterns, which impose limitations on development along the Lake Michigan shore.

Below, in Table 4-1, is relevant climatic information for the area. These conditions generally do not pose limitations on the area's growth except along the Lake Michigan shore, where natural forces can cause rapid and extensive erosion of beaches and sand dunes. The climate is also considered favorable for growing certain fruits, such as apples and blueberries.

Photo 4-1
Tri-Communities Experience Four Seasons



*Source: Felicia Fairchild, Saugatuck Douglas
Visitors and Convention Bureau*

GEOLOGY

The Tri-Community area is located on the southwestern flank of the Michigan Basin, which is a bedrock feature centered in the middle of the Lower Peninsula. The sandstone and shale bedrock is overlain by glacial deposits from 50 to 400 feet thick. There are no outcroppings of the bedrock and the proximity of the bedrock to the surface of the ground does not impose limitations for normal excavating or construction. Glacial deposits consist primarily of sandy lakebed deposits located between two major physiographic formations: the Lake Border Moraine, which is adjacent to Lake Michigan, and the Valparaiso Moraine, which extends through the center of the county, from north to south, oil and gas drilling in the area occurred mostly during the period from late 1930's to the early 1950's. At present, there are no producing wells in the Tri-Community area.

TOPOGRAPHY

Most of the Tri-Community area is relatively flat, but local variations in elevation of up to 150 feet exist in some places between uplands and the floodplain of the Kalamazoo River. There are also considerable local differences in elevation in the extreme northwest portions of the Township in the sand dunes between the Kalamazoo River and Lake Michigan. The highest point in this area is Mt. Baldhead, which rises 310 feet above Lake Michigan. Areas of abrupt local variations in elevation appear as dark areas on the topographic map and the highest elevations as light colors, such as yellow and beige. (Map 4-1).

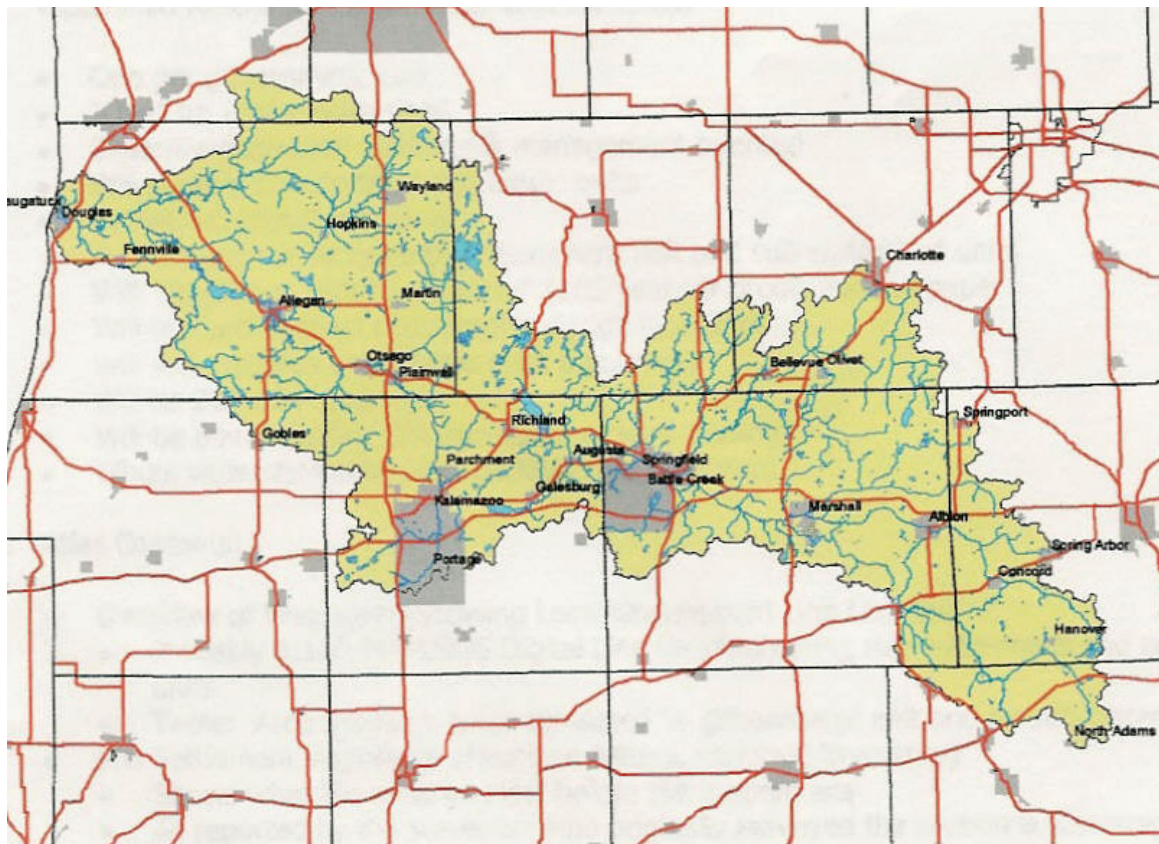
Steep slopes present impressive scenery and pose increased maintenance and construction costs as well as safety risks. This is especially true with unstable landforms such as sand dunes. Generally, slopes exceeding 7% should not be developed intensively, while slopes of more than 12% should not be developed at all because of erosion and storm water runoff problems.

Table 4-1
Summary of Relevant Climate Conditions

Climate variables	Average condition	Extreme condition
Coldest Months (January-February)	16°F/-9°C-31°F/-1°C	-11° F - -35° F
Hottest Month (July)	60°F/116°C-84°F/29°C	96° F – 100° F
Annual Average Temperature	48.3° F	
Average Rainfall	36 inches/91 cm	
Average Growing Season	151 days	
Average Annual Snowfall	80 in/203 cm	
Elevation Above Sea level	590 feet	
Prevailing: Winds	Westerly	

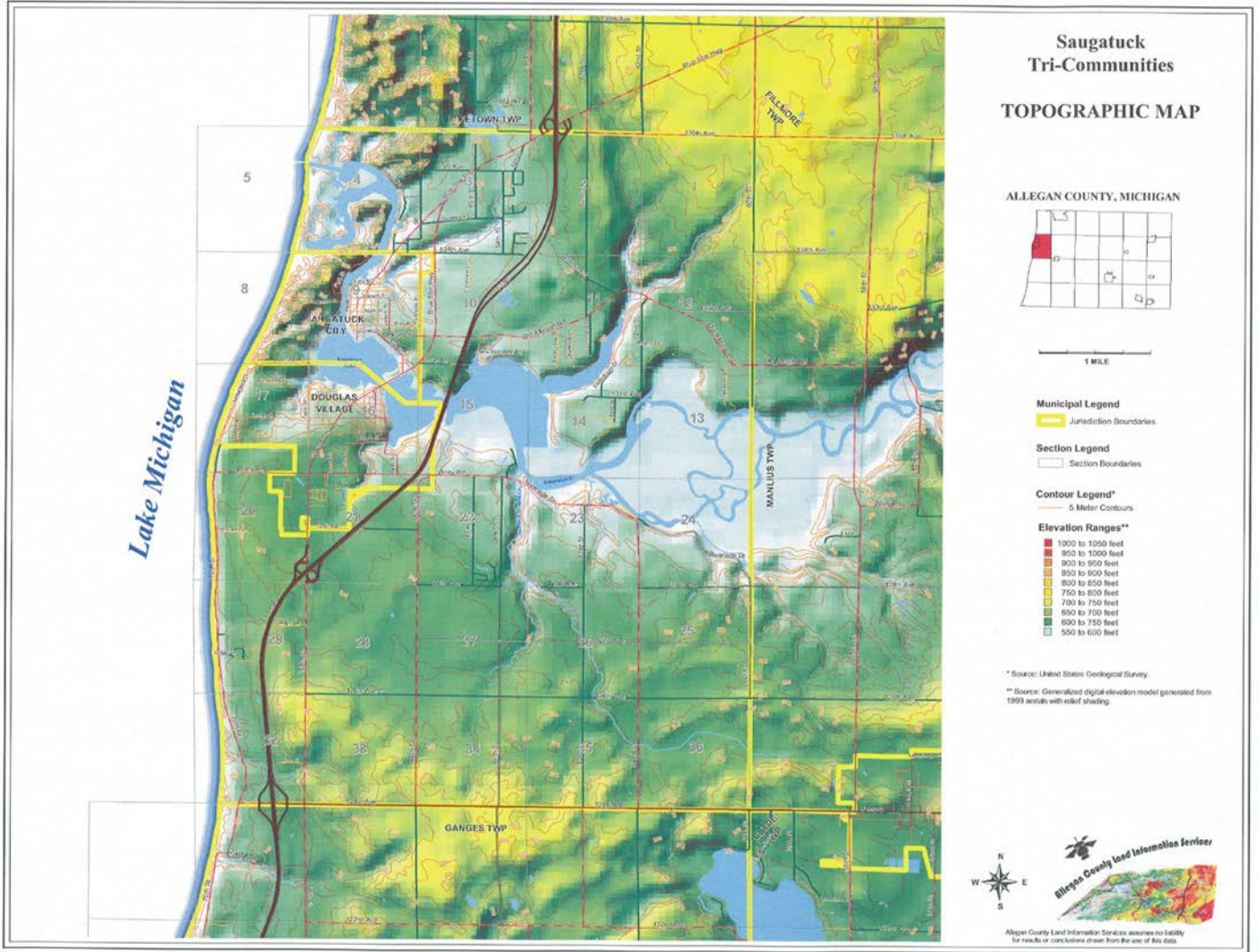
Source: *USDA Soil Survey. Allegan County*

Figure 4-1
Kalamazoo River Basin



Watershed graphic designed by Greg Anderson, WMU GIS Department

Map 4-1
Tri-Community Topography



DRAINAGE

Most of the Tri-Community area lies within the Kalamazoo River Basin, which begins near Jackson and extends westward into the Tri-Community area (see Figure 4-1). The extreme southwestern portion of the Township drains directly into Lake Michigan. All of the watercourses within the area drain into the Kalamazoo River, which flows westward through the middle of the Township and into Lake Michigan. Tannery Creek, Peach Orchard Creek, Silver Creek and Goshorn Creek are all short-run streams that flow into the Kalamazoo River. A network of County drains facilitates the removal of runoff from flat areas with poorly drained soils in the southern half of the Township. The sand and clay bluffs along Lake Michigan in Section 20 are being eroded by groundwater which flows through the sandy topsoil and onto the less permeable clay layer. The water flows out the side of the bluff, undermining the sandy upper layer. Several County drains were built that collect runoff on the landward side of the bluffs for discharge via a pipe drilled through the bluff into Lake Michigan. Most other areas of the Township drain fairly well, especially Saugatuck and the City of the Village of Douglas. All watercourses, including county drains, are found on Map 4-2.

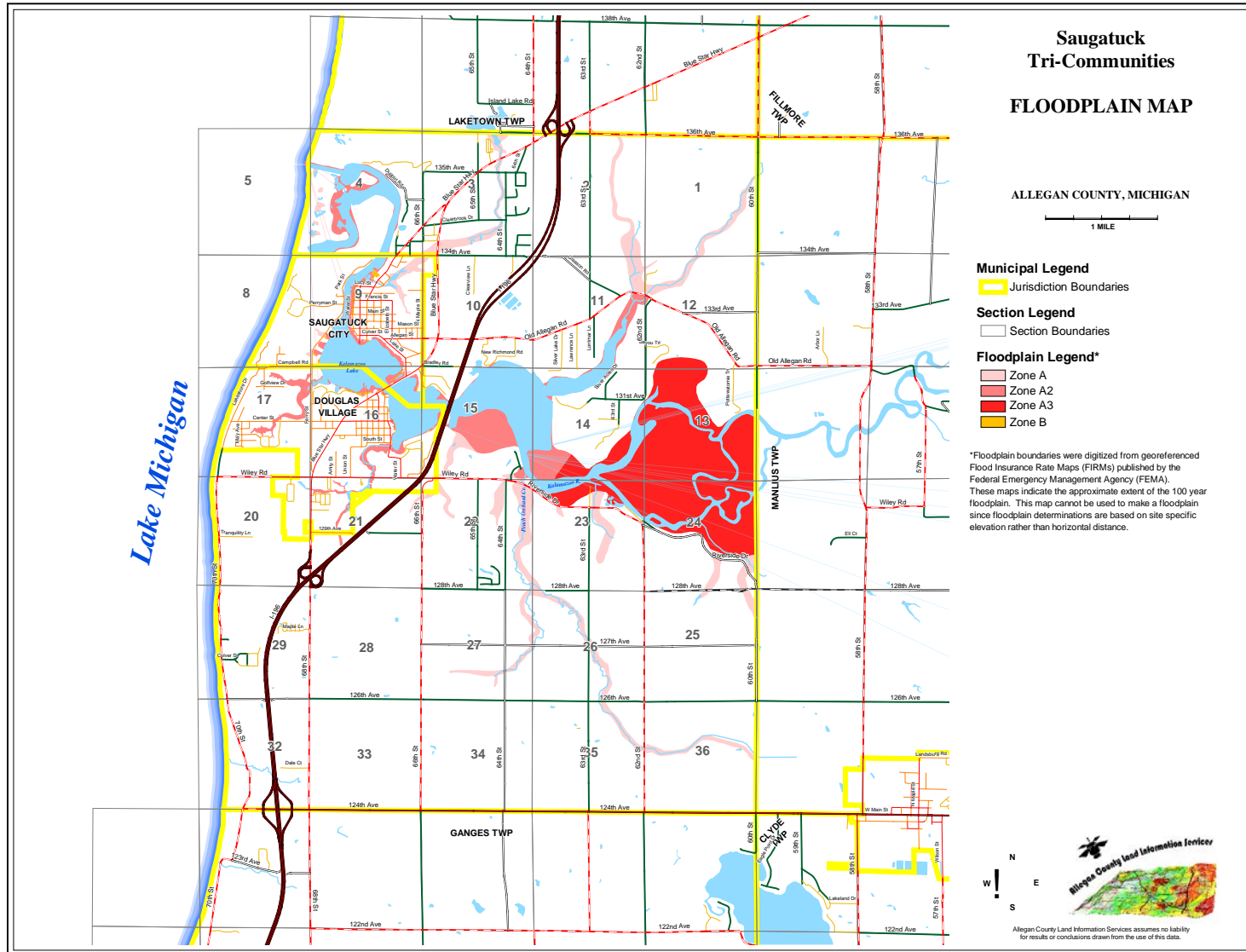
The Allegan County Drain Commissioner issued updated development standards in October, 2003. These standards outline the review process for development projects within the County and guidelines for management of storm water and protection of surface water resources, such as wetlands and floodplains.

FLOODPLAINS

Areas adjacent to creeks, streams and rivers are susceptible to periodic flooding that can cause extensive damage to buildings and can pose a substantial threat to public health and safety. The U.S. Army Corps of Engineers has mapped the boundaries of the 100 year floodplain in the Tri-Community area. Those boundaries are denoted by the shaded areas on Map 4-2 and would be inundated during an Intermediate Regional Flood. The Federal Flood Insurance Program of the Federal Emergency Management Agency (FEMA) has established guidelines for use and development of floodplain areas. Those regulations indicate that development in floodplains should be restricted to open space, recreational or agricultural uses. Installation of public utilities and permanent construction for residential, commercial or industrial uses should not occur in floodplain areas.

Floodway filling or alteration (in watersheds with a drainage area of 2 square miles or more) is not allowed without review and approval by the Allegan County Drain Commissioner and in compliance with the Floodplain Regulatory Authority found in Part 31, Water Resources Protection, of PA 451 of 1994, the Natural Resources and Environmental Protection Act.

Map 4-2 Tri-Community Floodplains



WETLANDS

There are many wetlands in the Tri-Community area. Most are contiguous to or hydrologically connected (i.e. via groundwater) to Lake Michigan, rivers, streams, or creeks. Wetlands are valuable in storing floodwaters, recharging groundwater, and removing sediment and other pollutants. They are also habitat for a wide variety of plants and animals, including a large rookery of Great Blue Herons along the Kalamazoo River.

Because wetlands are a valuable natural resource, they are protected by Part 303 Public Act 451 of 1994. Part 303 requires that permits be acquired from the Michigan Department of Environmental Quality (DEQ) prior to altering or filling a regulated wetland. The Wetland Protection Act defines wetlands as characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland, vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and is contiguous to the Great Lake, an inland lake or pond or a river or stream.

Photo 4-2

Wetlands in Peterson Nature Preserve



Source: Felicia Fairchild, Saugatuck Douglas Visitors and Convention Bureau

Regulated wetlands include all wetland areas greater than 5 acres or those contiguous to waterways. Wetlands which are hydrologically connected to waterways are also regulated. Activities exempted from the provisions of the Act include farming, grazing of animals, farm or stock ponds, lumbering, maintenance of existing nonconforming structures, maintenance or improvement of existing roads and streets within existing rights-of-way, maintenance or operation of pipelines less than six inches in diameter, and maintenance or operation of electric transmission and distribution power lines.

The Allegan County Drain Commissioner's Development Standards includes a 25' permanent buffer strip, vegetated with native plant species, to be maintained or restored around the periphery of wetlands in development projects. These buffer strips are defined as zones where construction, paving and lawn care chemical applications are prohibited.

Permits are not to be issued if a feasible or prudent alternative to developing a wetland exists in such areas. An inventory of wetlands based on the 1996 land use\cover inventory (see Chapter 5) is illustrated on Map 4-3. While wetlands are mapped, on-site inspections will be necessary to establish whether a wetland indeed exists, and the extent to which it exists on any site. Areas of hydric soils in the south-central part of the Township would be classified as wetlands if they were not in agricultural use and served by county drains.

SOILS

A modern soil survey was completed for Allegan County by the USDA Natural Resource Conservation Service in March, 1987. For information about specific soil types, contact the USDA Natural Resources Conservation Service, Allegan Service Center, 1668 Lincoln Rd, Allegan, MI 49010-9410, (269) 673-6940, (269) 673-9671 fax. Each soil type has unique characteristics which pose opportunities for some uses and limitations for others. The most important characteristics making the soil suitable or unsuitable for development are limitations on dwellings with basements, limitations on septic tank absorption fields, and suitability for farming. Soil limitations have been classified into three categories, which are described below.

- Slight: Relatively free of limitations or limitations are easily overcome.
- Moderate: Limitations need to be considered, but can be overcome with good management and careful design.
- Severe: Limitations are severe enough to make use questionable.

Large areas of soils in the Township create severe limitations on residential and urban development. See Map 4-4. The degree of soil limitations reflects the hardship and expense of developing the land. Fortunately, most of the soils which are not suited for residential development are also considered prime farmland soils by the U.S. Department of Agriculture.

Basement Limitations

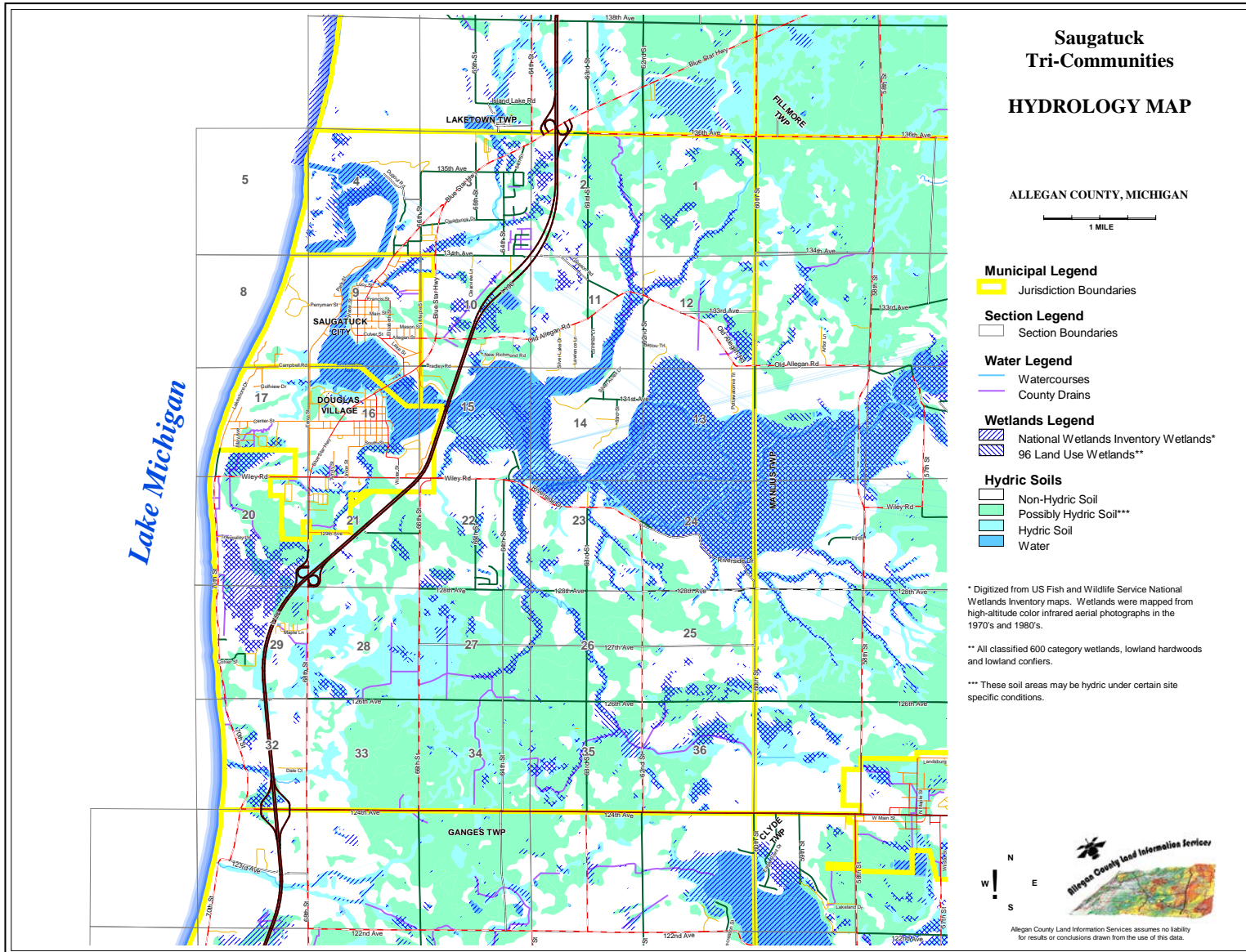
Limitations for dwellings with basements are shown on Map 4-4. Some soils impose severe limitations on basements because of excessive wetness, low strength, excessive slope, or shrink-swell potential. These areas are found primarily in the northeast corner and in the southern half of the Township.

Septic Limitations

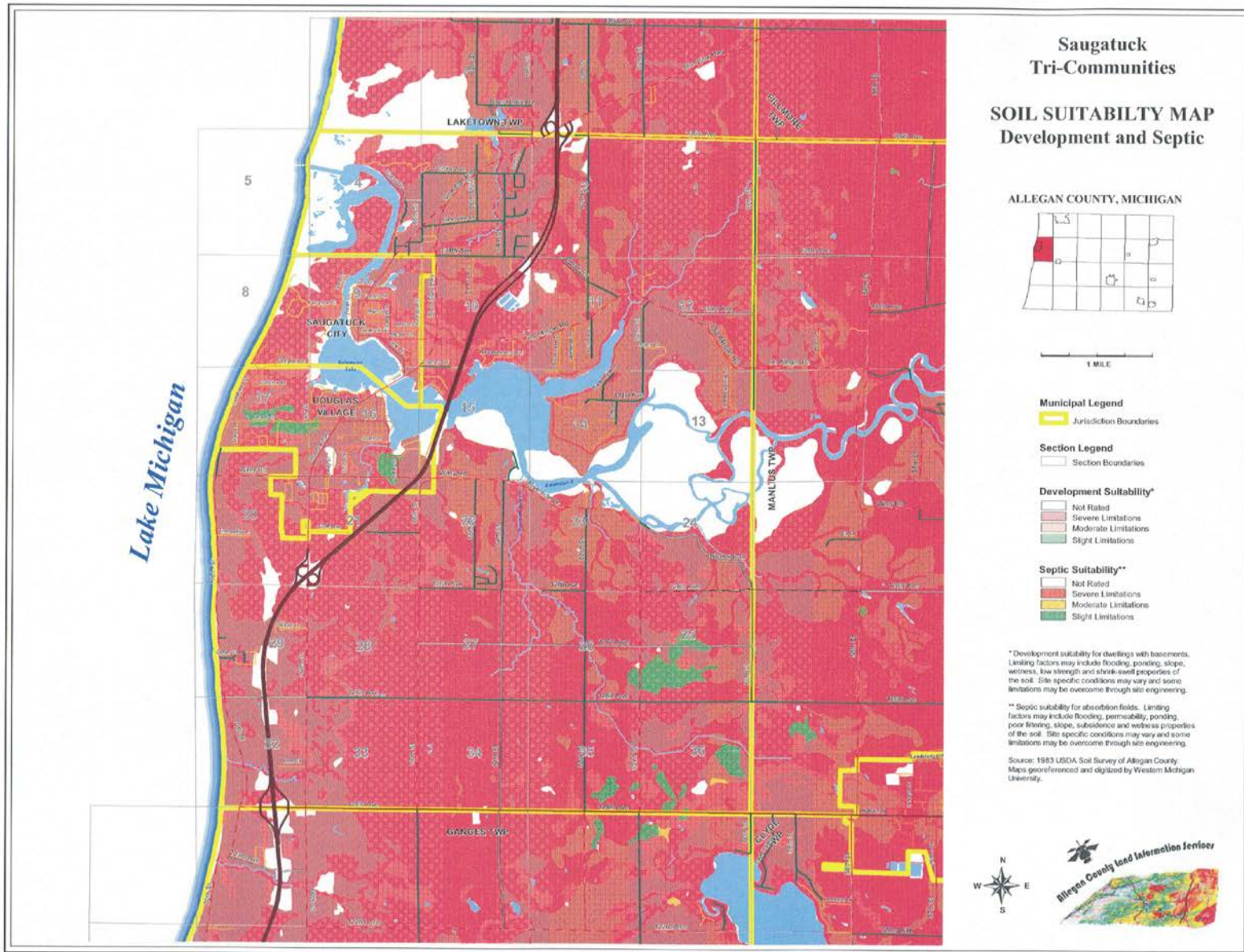
Soils in most of the Tri-Community area impose severe limitations on septic tank absorption fields for a wide variety of reasons. The permeability of soils in the area ranges from very poorly drained to excessively drained. There are only a few small areas which are neither poorly nor excessively drained, do not have a high water table, and are therefore well suited for septic tank absorption fields. These areas are located in the southeast corner of the Township and in the southwestern portion of the City of the Village of Douglas. Most of the Tri-Community area that is likely to experience future growth has moderate to severe limitations for on-site septic systems. Map 4-4 shows the septic limitations for the area. This map suggests the need for municipal sewers to accommodate new development in many areas if the density is anything greater than one dwelling unit per two acres.

The degree of soil limitations reflects the hardship and expense of developing that land for a particular use. Those soils classified as "severe" have varying degrees of development potential based on the nature of the limitation.

Map 4-3 Tri-Community Wetlands and Hydric Soils



Map 4-4
Tri-Community Development Limitations



Standards for Septic Systems

The Allegan County Health Department has established certain standards for septic systems. These standards apply somewhat different site characteristics when determining the degree of limitations for septic systems, compared to the USDA Natural Resource Conservation Service approach, which focuses on soil types and slope. Below is a review of these standards by development type.

Single Family Residential

The Allegan County Health Department has developed building site acceptance specifications for onsite septic disposal. Generally, if a residence is planned for a particular part of Saugatuck Township where municipal sewer is not available, the following Allegan County Water and Sewer Regulations apply.

“The following specifications shall be used in determining the suitability of the soil to provide satisfactory drainage for a sewage disposal system utilizing one or more septic tanks and an absorption field, trench or bed:

- The soil classification and interpretations as provided by the United States Department of Agriculture, Soil Conservation Service and the use limitations pertaining to that soil classification may be considered by the Health Officer and used as part of the soil and drainage evaluation.
- The borings or excavations shall be made within the area proposed for the sewage disposal system to determine that the seasonal high water table and soil formations comply with this section. The Health Officer may request that excavations or borings to a minimum of six (6) feet be made available for inspection and evaluation of soil types and conditions.
- Seasonal high water table or evidence thereof shall be at least four (4) feet below the bottom of the trench or bed.
- Impervious hardpan or clay, if present, shall be at least four (4) feet below the bottom of the trench or bed.
- Filled ground or "made land" shall be acceptable only under specific written approval of the Health Officer and in any case shall be compacted or allowed to settle for at least one (1) year from the time of filling.
- In addition to evaluation of the data required above, the Health Officer may request stabilized percolation rate tests, conducted by a qualified professional, when deemed necessary to determine the absorption capacity of the soil.
- Sufficient area shall be set aside or put on reserve for a future replacement system. Such replacement system area shall at least equal the area required for the initial system. In cases where filling is allowed, the size of the replacement area shall equal the area of the initial absorption system and fringe area. The replacement drain bed must be isolated at least 15 feet from an existing bed/field or drywell.”

Lot size can be affected by the use of private wells and onsite septic systems. There must be an adequate separation distance between the well and any component of the septic system, and in Allegan County this is 75 feet. A separation distance of 100 feet is required between any portion of the septic system and a lake or stream but only 10 feet to a property line.

The size of the required septic field and an area designated for a replacement field

depends on the percolation rate of the soil and the number of bedrooms in the house. Other factors that could increase the size of the absorption field are:

- “For each additional bedroom over six (6) add 250 gallons liquid capacity.
- Additional septic tank(s) shall be required by the Health Officer where adverse soil conditions are determined to exist.
- If a garbage grinder or sewage lift with a grinder pump is planned or installed, additional septic tank capacity and absorption area will be required by the Health Officer.
- Footing drain water, roof water, or storm drainage, shall not be connected or discharged into or over the surface of a sewage disposal system.
- Water softener effluent is discharged into a sewage system rather than a separate system, additional absorption area will be required.
- Hot tubs, garden tubs, Jacuzzis, etc. having a liquid capacity exceeding 100 gallons will require additional absorption area.”

Aerobic Treatment Septic Systems, or ATUs, are a type of high tech septic system that treats waste far more effectively than traditional septic systems. ATU systems utilize high tech aeration systems to maintain an environment where aerobic bacteria can thrive. This specialized bacteria greatly reduces nitrate levels, minimizing the environmental impact of the septic system. These types of systems are now approved for use by the Allegan County Environmental Health Department. They are often the only alternative for use on land with a high water table.

Alternative systems may be permitted by the County Health Department upon the guidance by the County Board of Commissioners.

All Other Residential, Plus Commercial

Commercial and group residential systems have different standards than single family systems. All sewage disposal systems except one and two family dwellings are under the control of the DEQ. The Allegan County Health Department is authorized by the DEQ to handle septic system disposal for flows in amounts of less than 10,000 gallons per day. Commercial systems generally have flows greater than that of a residential system, depending on use. Size and spacing requirements for onsite septic systems, plus soil percolation rates can make some parcels or areas of the Tri-communities difficult to site a commercial establishment.

A “pump and haul” system has been employed in many communities where onsite sewage disposal was not possible and municipal sewers were not available. “Pump and Haul” systems have been used adjacent to lakes or where groundwater is very high. This system is essentially a large holding tank that stores sewage until it is pumped out and hauled to a waste treatment facility. Depending on the type of establishment, pumping could take place at a rate exceeding once a day. In Allegan County, such systems are only permitted where municipal sewers are scheduled to be built within six months of occupancy.

Hydric Soils

Hydric soils are another limitation on development. Hydric soils generally have been exposed to water saturation conditions for extended periods, such as in a wetland. They are very poorly drained, saturate easily and retain large quantities of water. If artificially

drained, they are often suitable for farmland use. Map 4-3 shows where these soils are. In the Tri-Community area, most of the hydric soils are found near watercourses and correspond to present or former wetlands. There is a large area of hydric soils in the southwest portion of the Township which is currently being farmed. Residential, commercial and industrial development in areas containing hydric soils should be discouraged.

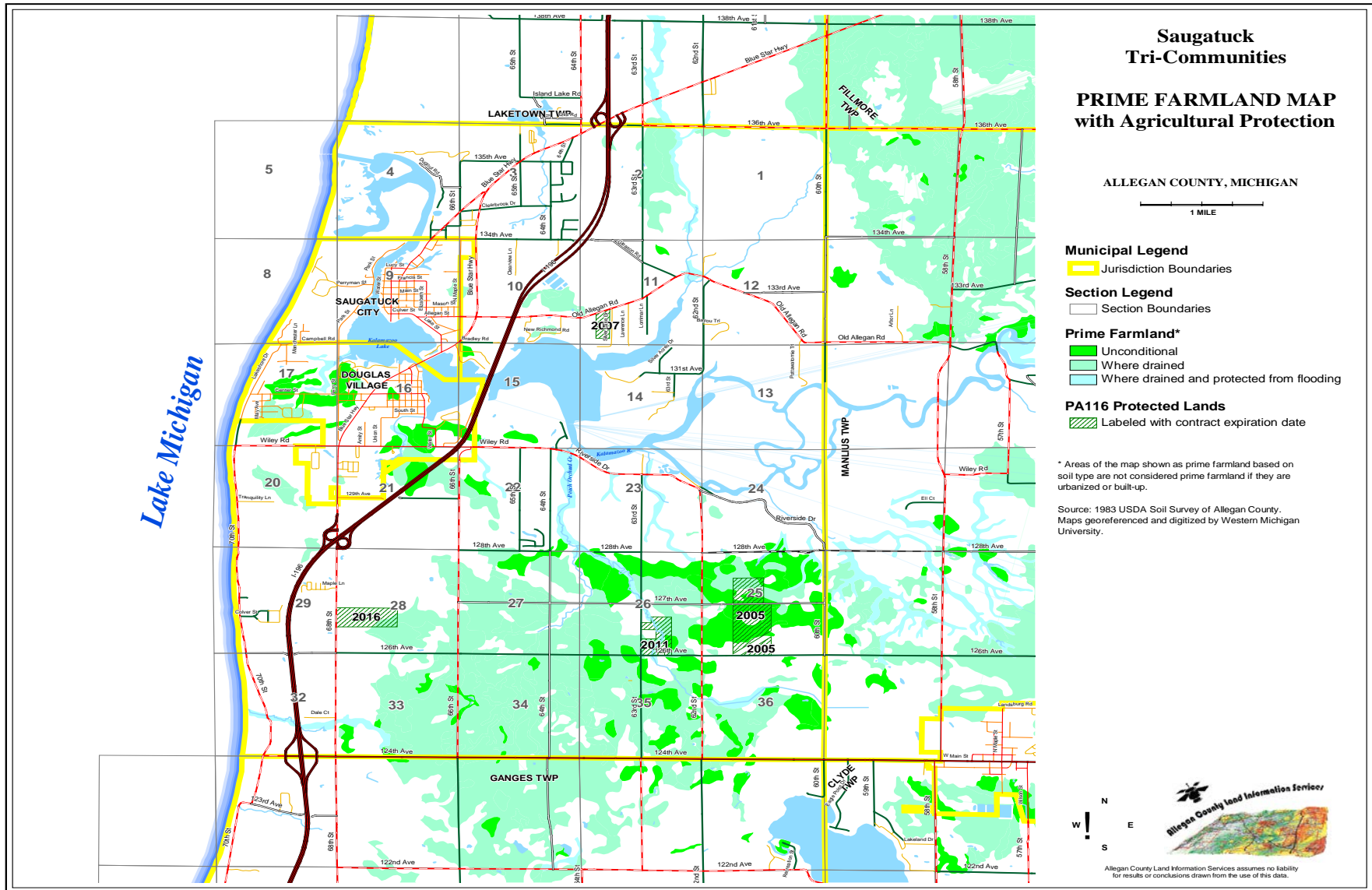
Prime Farmland

Prime farmland soil types have been identified by the Natural Resources Conservation Service as those best suited for food production: they require minimal soil enhancement measures such as irrigation and fertilizer. There is a very large area of prime farmland soils in the south central portion of the Township. These areas contribute significantly to the area's economic base. The loss of prime farmland to other uses results in farming on marginal lands, which are more erodible and less productive. Soils in prime farmland categories that have frequent flooding or seasonal high water table, such as those in the southern half of Saugatuck Township, qualify as prime farmland because those limitations have been overcome by drainage. Unique farmlands are based on certain soil types as well as other factors, such as landscape position (proximity to water supply, orientation to sunlight, slope, etc.), moisture supply and present management practices. Prime farmland soils and unique farmlands are shown on Map 4-5. Unique farmland and lands enrolled in the Farmland and Open Space Preservation Program (PA 116 of 1974) are also depicted on Map 4-5. See contract list in Table 4-2. Total 466.58 acres mapped and not mapped.

Table 4-2
Revised PA 116 Contract List as of 9/30/2004

Agreement #	GIS Acreage	OwnerName	Township	LegalDesc1
Last 6 Numbers of Agreement # refer to the Expiration Date (Example: -123125 = 12/31/2025).				
Records ending in 94, 95, 96, 97, 98, 99, 00, 01, 02, and 03 are expired but are still on file.				
03-49831-123107	18.45	Linda J. Charvat	Saugatuck Township	Comm in center of Old Allegan Road 85.47 ft SW of NE corner Lot 18, th S 1518.6 ft, th W 577.23 ft to W line Lot 18, th N along W line to center Rd., th NE'ly along Rd. to beginning being part of Lot 18; Sections 11 & 14, T3N, R16W, Saugatuck Township, Allegan County, Michigan.
03-16300-123104	60.01	August L. Knikelbine	Saugatuck Township	Comm at the SW corner of the SE 1/4 of the SE 1/4 of the SW 1/4 of Section 27, T3N, R16W, as the POB, then N 330 ft, then E 132 ft, then S 330 ft, then W 132 ft to the POB. ALSO the NE 1/4 of the NE 1/4 of Section 33, T3N, R16W, EXCEPT the S 200 ft of the E 275 ft of the NE 1/4 of the NE 1/4 of Section 33, T3N, R16W, Saugatuck Township, Allegan County, Michigan.
03-17868-123199	39.8	Bruce R. Gould	Saugatuck Township	SW 1/4 of NE 1/4, Sec 33, T3N, R16W, ALSO W (2) rods (33ft) of W 1/2 of NW 1/4 of NE 1/4, Sec 33, T3N, R16W, Saugatuck Township, Allegan County, Michigan. (41)
03-48670-123105	127.68	Ronald S. Powers	Saugatuck Township	That part of W 20 acres of SE 1/4 & E 1/2 of SW 1/4, Sec 25 lying S'ly of a line descas comm at SW cor of sd sec, th N 89deg12'57" E along the S line of the SW 1/4 1610.30 ft to POB of sd desc line, th N 54deg23'33" E 1685.06 ft to E line of the W 20 acres of SE 1/4 & POE of said desc line Sec 25; ALSO SE 1/4 of NW 1/4; ALSO that part of E 1/2 of SW 1/4 & W 20 acres of SE 1/4 Sec 25 lying N'ly of a line desc as comm at SW cor of sd sec, th N 89deg12'57" E along the S line of SW 1/4 1324.61 ft to W 1/8 line of sd sec, th N 00deg05'20" W along the sd W 1/8 line 106.71 ft to POB of sd desc line, th N 54deg23'33" E 2036.22 ft to the E line of the W 20 acres SE 1/4 of sd sec & POE sd desc line Section 25; All above in Section 25, T3N, R16W, Saugatuck Township, Allegan County, Michigan.
03-16301-123104	Not Mapped	August L. Knikelbine	Saugatuck Township	The N 34 acres of the E 50 acres of the S 1/2 of the NE 1/4 of Section 28, T3N, R16W, EXCEPT beg at the NE corner of the S 1/2 of the NE 1/4 Section 28, T3N, R16W, then S 89deg03'30" W on the E W 1/8 line, NE 1/4, 1650 ft, then S 00deg46'07" E, 883.77 ft, then N 89deg12'43" E, parallel with the S line of the section. 623.32 ft, then N 02deg18'52" W 851.63 ft, then N 89deg09'30" E, 1049.65 ft to the E line of the section, then N 00deg46'07" W on section line 33 ft to the POB; all in Section 28, T3N, R16W, Saugatuck Township, Allegan County, Michigan.
03-25207-123111	48.62	David M. Skinner	Saugatuck Township	The S 1/2 of the NW 1/4 of SE 1/4, EXCEPT a parcel in the NW corner 18 rods N & S by 27 rods E & W, ALSO the SW 1/4 of the SE 1/4 of Section 26, ALSO EXC comm on S ln of sd Sec 26 at a pt 758.50 ft, S 89deg31'15" E of the S 1/4 post, th N para with the N-S 1/4 ln, 155.57 ft, th S 89deg31'15" E 280 ft, th S 155.57 ft, th N 89deg31'15" W 280 ft to POB; All land desc located in Section 26, T3N R16W, Saugatuck Township, Allegan County, Michigan.
03-25505-123116	58.02	Harold R. Krupka	Saugatuck Township	The S 3/4 of N 1/2 of SW 1/4 of Section 28, T3N, R16W, Saugatuck Township, Allegan County, Michigan. (60)
03-34237-123102	Not Mapped	Paul A. Koeman	Saugatuck Township	The W 1/2 of NW 1/4 Section 35, T3N R16W, ALSO at the NE corner of Sec 34, th W on the N line of sd sec, 831.16 ft to the POB of this desc, th cont. W 172 ft, th S 204 ft, th E 111.34 ft, th N 54dg40' E 74.35 ft, th N 161 ft to the POB, ALSO EXC comm 590 ft E of the NW corner of Sec 35, th S 500 ft, th E 450 ft, th N 500 ft, th W 450 ft to POB, Section 34, T3N R16W, ALSO EXC that part of the NE 1/4 of the NE 1/4 of Sec 34, desc as beginn at a point on the N line of Sec 34, being N 90deg00'00" W 817.18 ft from the NE corner of Sec 34, th proceeding S 26deg00'00" E 61.295 ft, th S 00deg00'00" W 218.05 ft, th N 90deg00'00" W 240.17 ft, th N 00deg00'00" E 144.645 ft, th S 90deg00'00" E 14.26 ft, th N 00deg00'00" E 128.50 ft to the N line of Sec 34, th on sd N line S 90deg00'00" E 13.06 ft, th S 00deg00'00" W 204.00 ft, th S 90deg00'00" E 111.34 ft, th N 54deg40'06" E 74.355 ft (previously desc as N 54deg40' E 75.35 ft), th N 00deg00'00" E 161.00 ft to the N line of Sec 34, th S 90deg00'00" E 13.98 ft to the POB, cont 0.671 acres being subject to any part taken, used or deeded for public road purposes and being subject to any easements or other conveyances of record. All land is located in Section 34, T3N R16W, Saugatuck Township, Allegan County, Michigan.

Map 4-5 Prime Farmlands with Agricultural Protection



GROUNDWATER

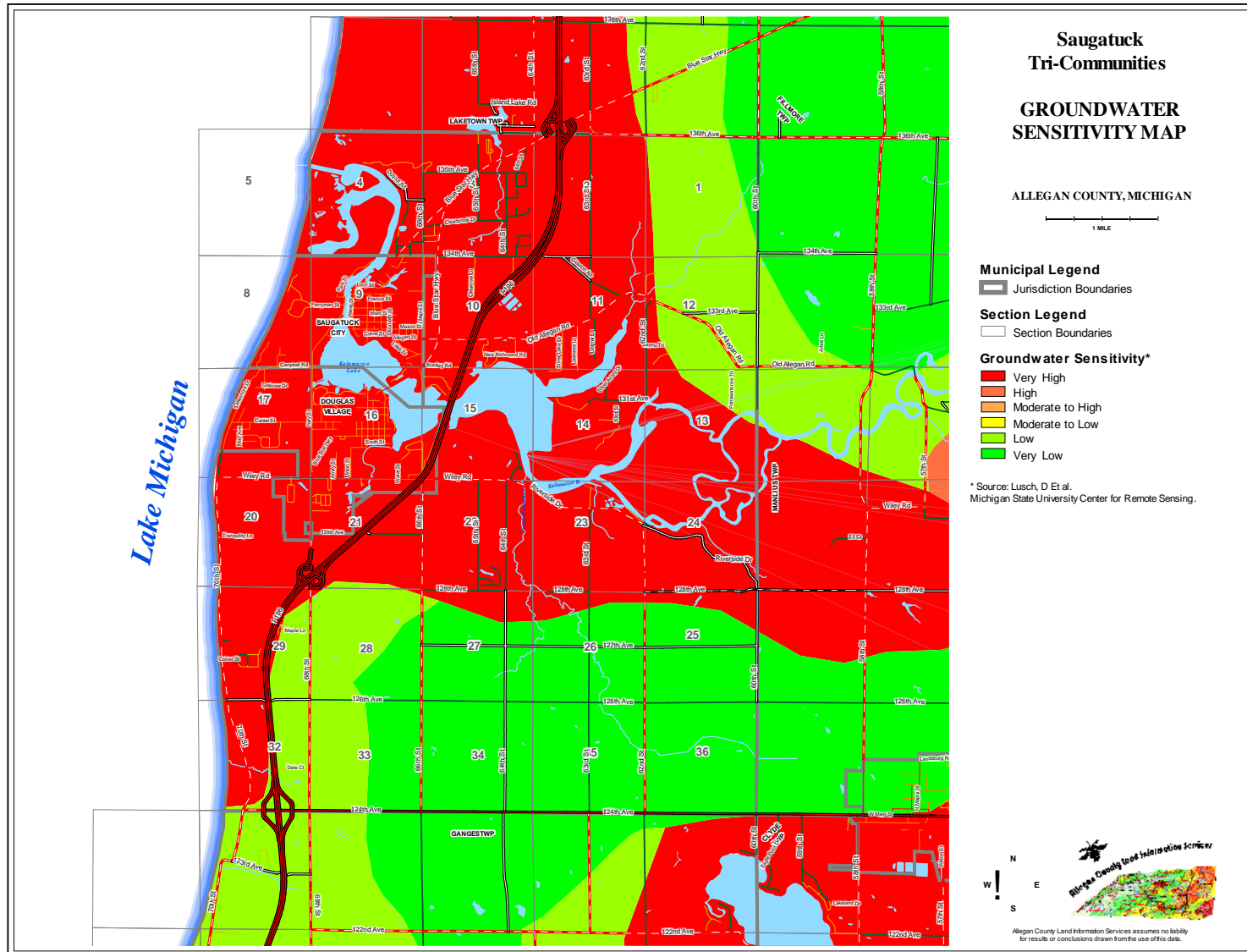
Groundwater from wells is an unseen resource and is therefore particularly vulnerable to mismanagement and contamination. Prior to the 1980's, little was known about groundwater contamination in Michigan. Since then some startling facts have been revealed.

The leading causes of groundwater contamination in Michigan are from small businesses and agriculture. More than 50% of contamination comes from small businesses that use organic solvents, such as benzene, toluene and xylene, and heavy metals, such as lead, chromium, and zinc. The origin of the problem stems from careless storage and handling of hazardous substances. On paved surfaces where hazardous materials are stored, substances can seep through or flow off the edge of the pavement. Materials can get into floor drains which discharge to soils, wetlands or water courses.

At present, groundwater is the only tapped source of potable water for the City of Saugatuck, the City of the Village of Douglas and Saugatuck Township. The glacial drift aquifers in the area are especially vulnerable to contamination because of rapid permeability and high water table. In a local example, the City of the Village of Douglas' municipal water supply has been contaminated by volatile organic compounds (VOC's), supposedly by an industrial site within the Village (The old Case manufacturing plant, now owned by Haworth Company. This site has recently been allocated \$2.2 million by the MDEQ for clean-up. The plume of contamination has been spreading toward the site of an old golf course that has been planned for housing development.) Some areas without municipal sewer and water service are in danger of groundwater contamination due to septic systems, intensive development and a high water table. In the Goshorn Lake area, household wells are susceptible to contamination from septic systems due to intensive development and a high water table. The Allegan County Health Department recommends provision of public water and sewer to households in that area.

Protection of groundwater resources is problematic because of difficulties in locating aquifers. Well depth records indicate the relative location of groundwater at particular points. According to well logs from Michigan Groundwater Survey (MGS) data, well depths range from 29 ft. in the north central area to 360 ft. in the extreme southwest corner of the Township. Soils most vulnerable to groundwater contamination are found on Map 4-6. Well locations are indicated by small triangles on Map 4-6.

Map 4-6
 Tri-Community Groundwater Vulnerability and Well Locations



SPECIAL FEATURES

Lake Michigan Shoreline and Beaches

The entire shoreline, from M-89 to the sand dunes, is flanked by single family homes overlooking sand and clay bluffs. The Lake Michigan shoreline in Saugatuck Township is very susceptible to wind and water erosion during storms and high lake levels due to resultant wave action. According to US Army Corps of Engineers studies (**Lake Michigan Potential Damages Study**, 2002), some bluff loss can continue during low water periods as well, but this has not been observed in the Tri-Communities area. The closing of a segment of Lakeshore Drive due to bluff erosion is a graphic example of the inevitable landward movement of the bluff line. This process includes wave action; high Lake Michigan level; wind and rain erosion; the effects of groundwater flow; lake currents that transport sediment; long shore and pier structures that interrupt sediment transport along the shore; and gravity. The Saugatuck Pier is an example of a structure that contributes to shoreline erosion in the direction of current flow, according to a **Harbor Structure Impact Study**. These all work together to create a bluff dynamic that poses potential hazards to public health and safety. The Shorelands Protection Act of 1970 [now Part 323 of PA 451 of 1994] was enacted to identify areas where hazards exist by designating them and by passage of measures to minimize losses resulting from natural forces of erosion. High risk erosion areas are defined by the State of Michigan as areas of the shore along which bluff line recession has proceeded at a long term average of 1 foot or more per year. Almost the entire Lake Michigan shoreline in the Tri-Community area has been designated as a high risk erosion area, with some portions eroding at a rate of 1.7 feet per year. Within the designated area, shown on Map 4-7, alteration of the soil, natural drainage, vegetation, fish or wildlife habitat, and any placement of permanent structures, requires a DEQ review and permit, unless the local unit of government has an approved high risk erosion area ordinance. Similar to most shoreline communities in Michigan, Saugatuck Township, the City of the Village of Douglas and Saugatuck do not have such an ordinance.

Photo 4-3
Lake Michigan Beach



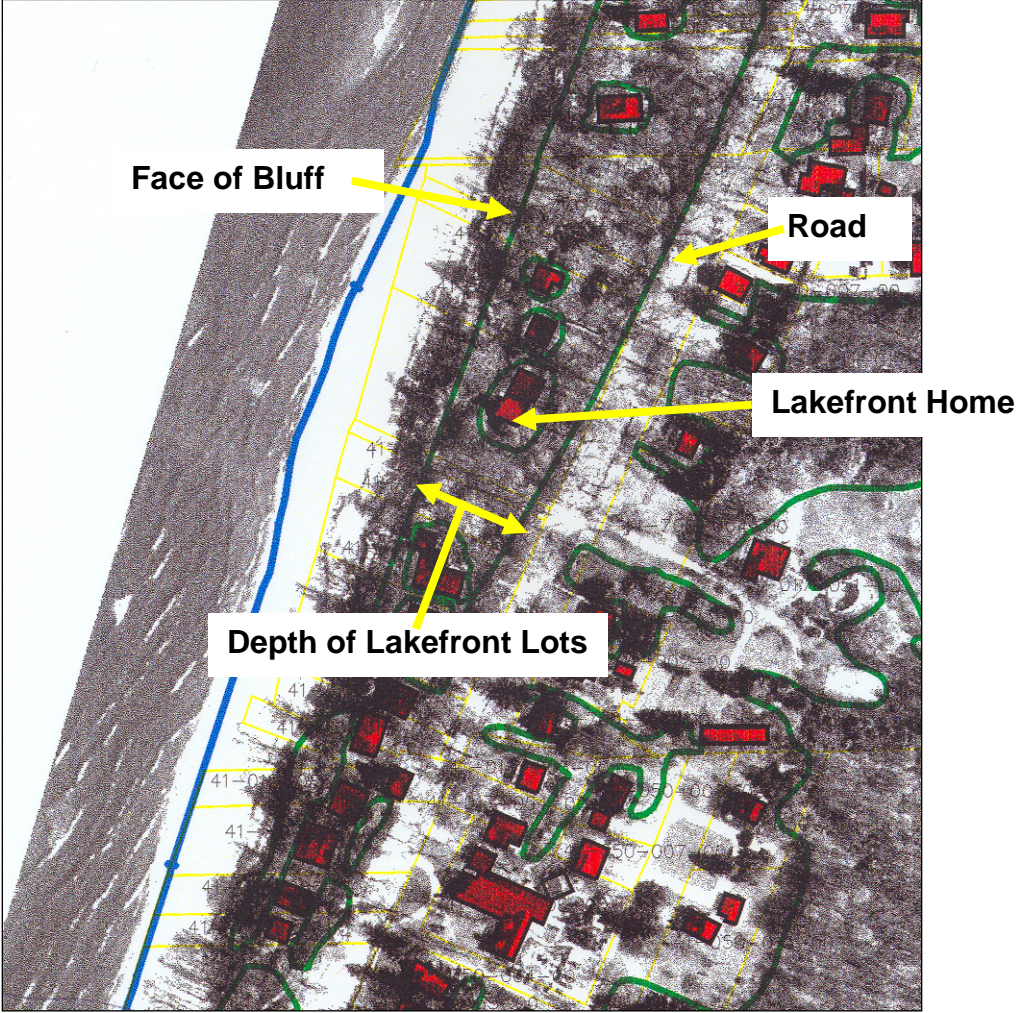
*Source: Felicia Fairchild, Saugatuck Douglas
Visitors and Convention Bureau*

Recent studies by the US Army Corps of Engineers (Lake Michigan Potential Damages Study) have re-examined the potential damages that could be caused by fluctuating Lake Michigan levels. These studies were based on evidence that the range of that fluctuation could be greater than has been experienced in the lifetime of current residents, and more so than recorded since European settlers arrived. The study found that many existing residences could suffer damage, or even be destroyed by collapsing bluffs, within the next 50 years.

Only a very well-constructed armament of the shore, with Class One revetments (engineered to survive at least 50 years) extending at least 1,000 feet along the shore is likely to prevent the loss of structures within the potential erosion zone. However, it is unlikely that such structures will be permitted by the Corps of Engineers because armament of the shore prevents the contribution of sediment to the littoral currents that nourish beaches down the coast. The result of armament of one section of shore has often been found to accelerate erosion of the next, unarmored segment of shore.

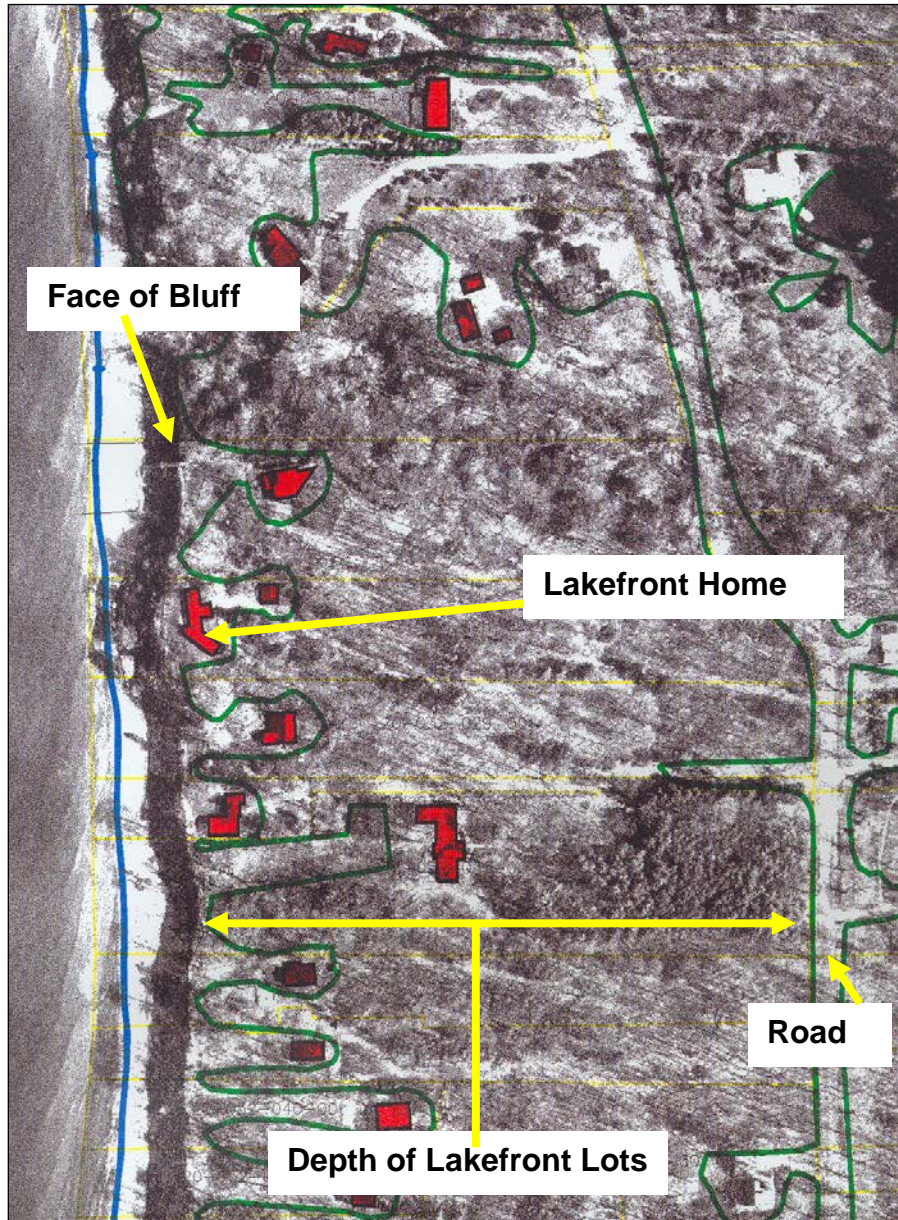
The Tri-Community Lake Michigan shoreline has parcels of many different depths. Where shoreline parcels are not very deep, there is little room to adjust to the receding bluff. See Photo 4-4. There will likely be considerable pressure to obtain permits to protect those bluffs from further erosion. Where parcel depth permits, residences could be moved or rebuilt farther from the advancing bluff. See Photo 4-5. New homes could be built using a system of built-in rollers that permits it to be moved back when necessary.

Photo 4-4
Shallow Lakefront Parcels in Saugatuck Township



Source: U.S. Army Corps of Engineers

Photo 4-5
Deep Lakefront Parcels in Saugatuck Township

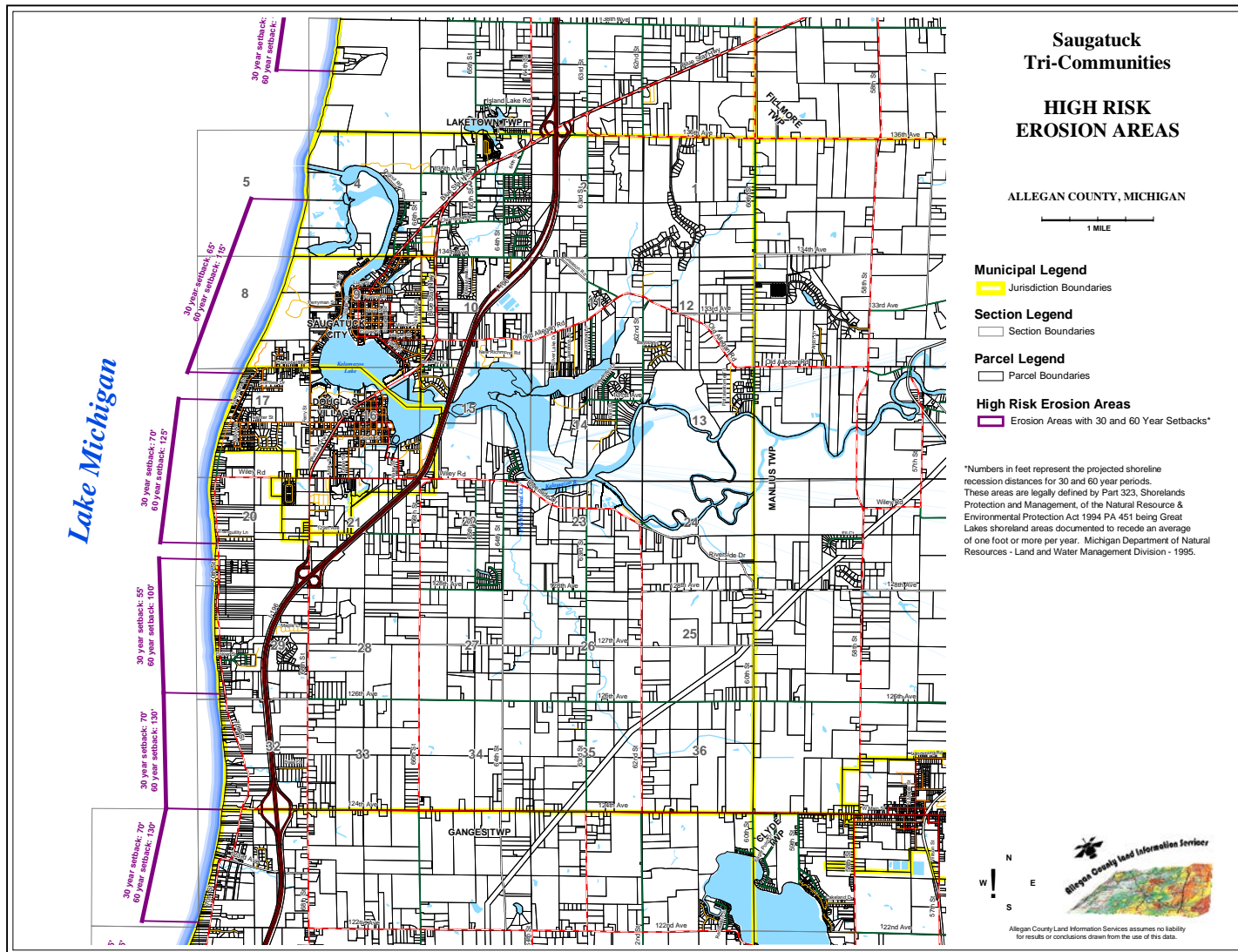


Source: U.S. Army Corps of Engineers

Of particular concern is the safety issue of falling debris from collapsing houses and the public health hazard of damaged or collapsed septic systems. This danger needs to be addressed as the bluffs continue to erode.

Fluctuating Lake Michigan levels also affect the beaches. At very high Lake Michigan levels, there can be little or no beach for residents and tourists to walk along. At very low levels, there is plenty of beach to enjoy.

Map 4-7 Tri-Community High Risk Erosion Areas



Sand Dunes

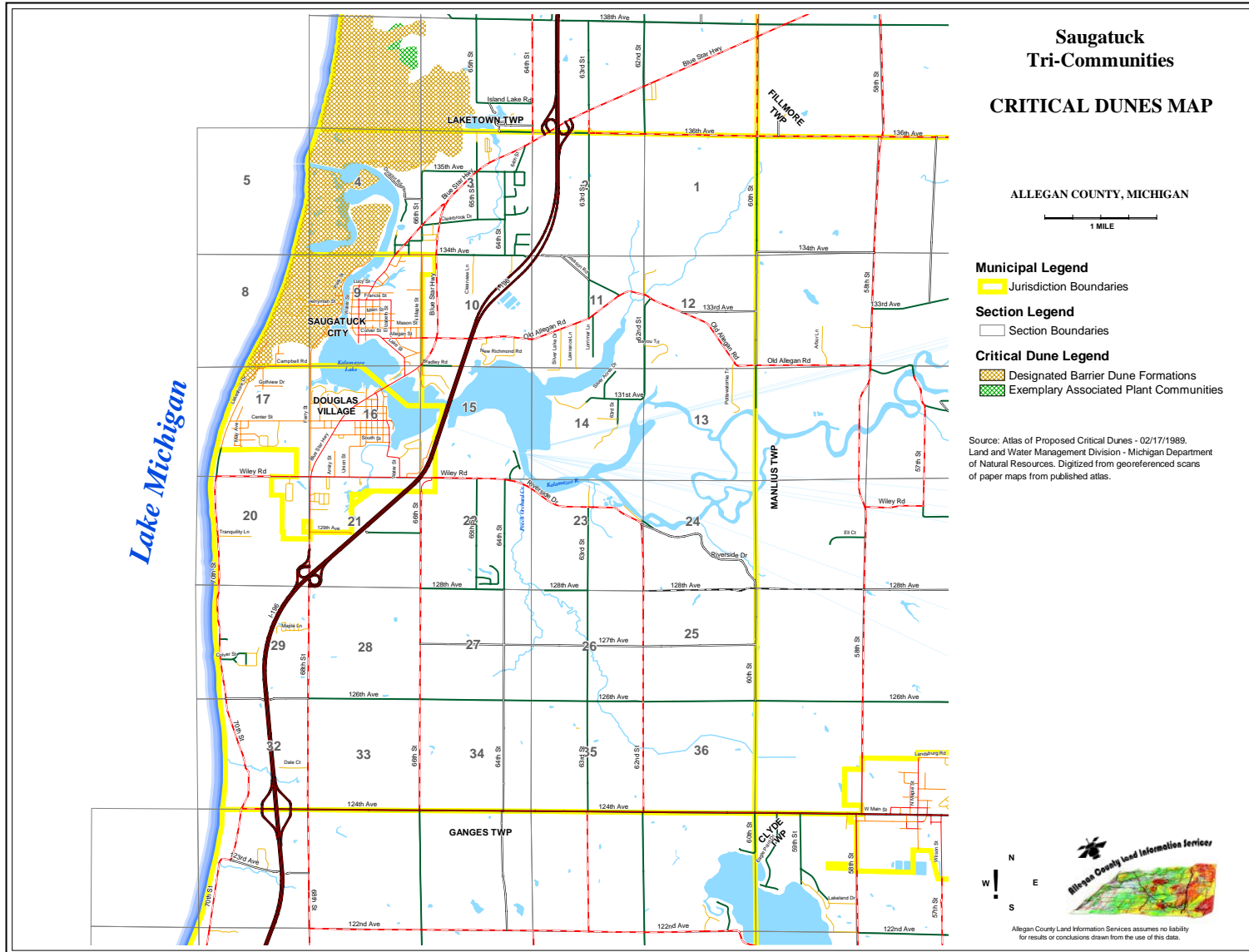
The sand dunes along Lake Michigan in the northwest corner of the Township represent a unique and fragile physiographic formation and ecosystem that is very susceptible to wind and water erosion, and destruction due to careless use or development. The dune area which is in Saugatuck Township and the City of Saugatuck has been identified by the Michigan Department of Natural Resources (DNR) as a critical dune area, subject to protection under the Michigan Sand Dune Protection and Management Act, new Part 353, PA 451 of 1994. The designated critical dune area is shown in the shaded region of Map 4-8. Under this Act, all proposed commercial or industrial uses, multifamily uses of more than 3 acres, and any use which the local planning commission or the DEQ determines would damage or destroy features of archaeological or historical significance must be approved by the State. Single family residential development is to be regulated at the local level. The law prohibits surface drilling operations that explore for or produce hydrocarbons or natural brine as well as mining activities (except in the case of permit renewals). The legislation also imposes certain standards on construction and site design in critical dune areas.

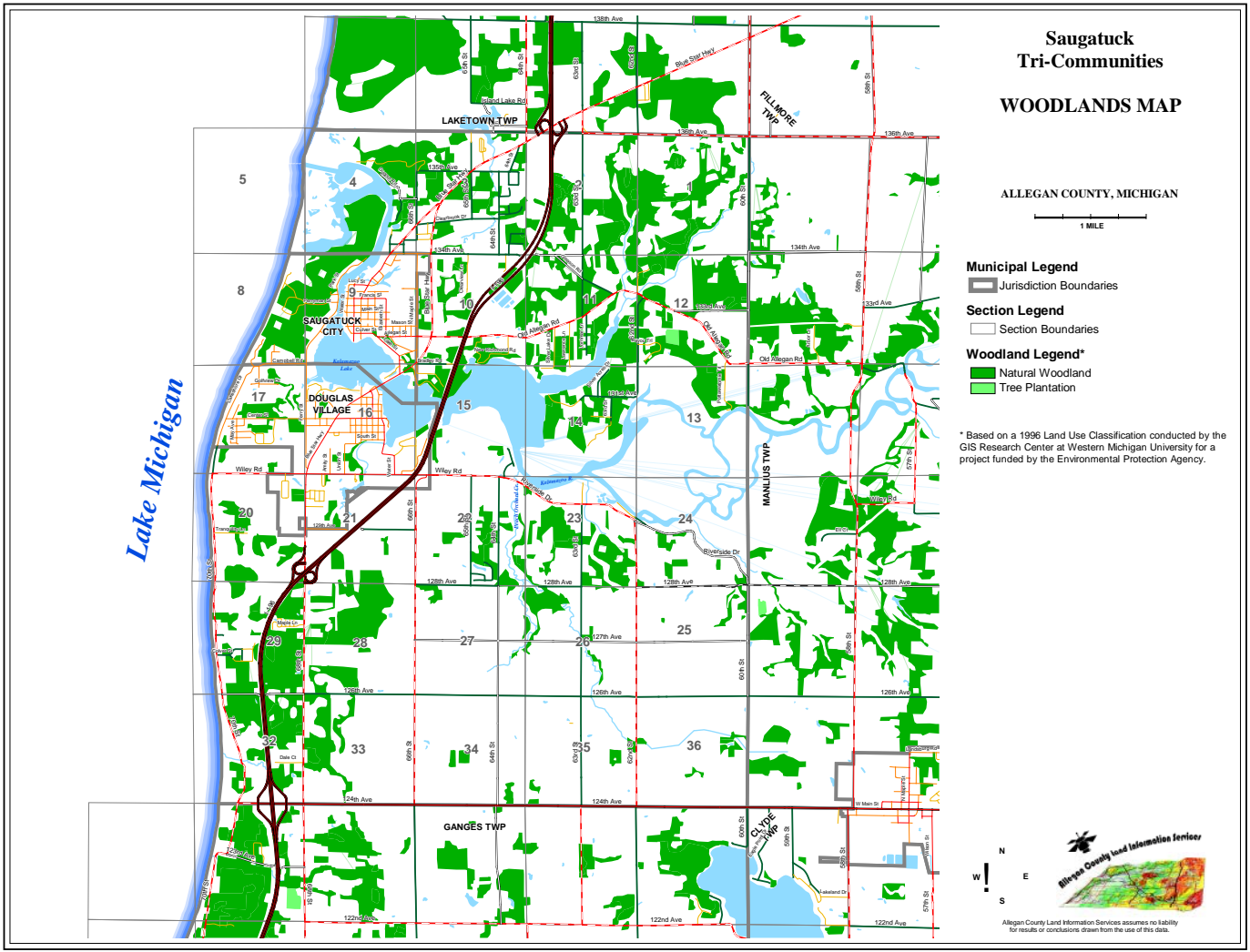
Site design and construction standards for sand dunes should be enhanced at the local level to prevent further deterioration of this fragile environment. Areas needing special attention in such standards are vegetation, drainage and erosion protection.

WOODLANDS

The wooded areas of the Tri-Community area are a mixture of hardwoods and conifers. Large areas of upland hardwoods are found in the sand dune areas, along Lake Michigan, and in the northeast quarter of the Township. A large area of lowland conifers exists in the southwestern portion of the Township east of I-196. Other smaller patches of upland and lowland hardwoods and conifers are scattered throughout the area, as shown on Map 4-9. Mature trees represent a valuable resource in maintaining the aesthetic character of the area, not to mention their overall importance to wildlife and the natural environment. In particular, the wooded sand dunes along the Kalamazoo River and Lake Michigan, and those buffering adjacent uses from I-196, are especially important. They should be managed to insure their long term existence.

Map 4-8 Tri-Community Critical Dunes Areas





**Saugatuck
Tri-Communities
WOODLANDS MAP**

ALLEGAN COUNTY, MICHIGAN
 1 MILE

- Municipal Legend**
 [Red dashed line] Jurisdiction Boundaries
- Section Legend**
 [Black line] Section Boundaries
- Woodland Legend***
 [Dark Green] Natural Woodland
 [Light Green] Tree Plantation

* Based on a 1996 Land Use Classification conducted by the GIS Research Center at Western Michigan University for a project funded by the Environmental Protection Agency.

N
 W | E
 S

Allegan County Land Information Services assures no liability for results or conclusions drawn from the use of this data.

Chapter 5 EXISTING LAND COVER AND USE

INTRODUCTION

This chapter discusses the types of land uses and land cover in the Tri-Communities. Land use refers to the types of activities on land, such as residential, agricultural, commercial, industrial and recreational. Land cover refers to the presence and type of vegetation or lack of it, such as dune areas and water bodies.

LAND USE/COVER DATA SOURCES

Land cover and use refers to an inventory of existing vegetation, natural features, and land use over the entire Tri-Community area. This data was obtained in computerized form from the Allegan County GIS Department based on 1978 aerial photographs and the Michigan Resource Inventory System (MiRIS) database, and an update based on 1996 aerial photographs and interpreted by Western Michigan University GIS Department. Land cover and use categories included in the data are explained on the legend to Map 5-1. The wetlands and woodlands maps in Chapter 4 were also derived from this data.

Land use by category for the entire Tri-Community area is shown in Table 5-1. This information was derived from the aforementioned data sources and areas were calculated using the County's Geographic Information System (GIS).

The predominant land use in the Tri-Community area is agricultural (3,110 acres), followed by single family residential (2,242 acres). There were substantial changes in land use between 1978 and 1996. Agriculture declined by 43% from 5,431 acres and residential increased by 57% from 1,431 acres. Much of the shift in agriculture went to "open land, shrub and herbaceous," the rest to low density residential. The predominant land cover types are upland forest, open land, shrub and herbaceous (3,570 acres) and wetlands (2,645 acres). The data shows that wetland acres increased by nearly 700% between 1978 and 1996, this is due to changes in classification and not to an increase in the acres of wetlands. Often, wetland acres decline due to development, but this data does not reflect any wetland loss. Vacant land, which includes the categories of open land, shrub and herbaceous, upland forest, lowland forest and wetland land cover types, comprises fifty-six percent of the total land area (street ROWs, which comprise about 1.3% are excluded).

Map 5-1
Tri-Community Land Cover/Land Use, 1996

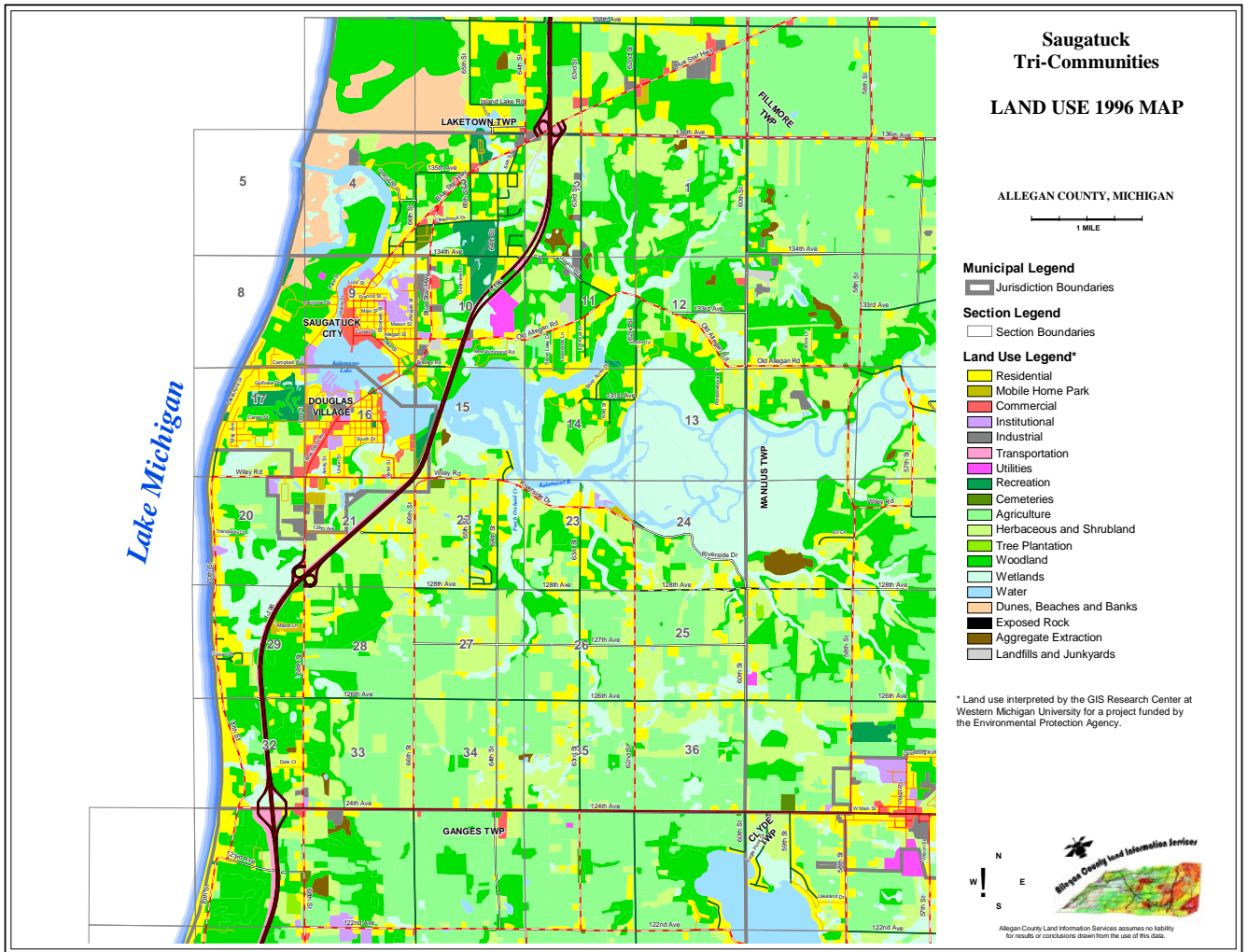


Table 5-1
Tri-Community Land Use/Land Cover, 1978 & 1996

LAND COVER/USE	1978		1996		% Change 1978-1996
	Acres	% of Total	Acres	% of Total	
Residential:					
Low Rise Multi-Family	6	0.0%	45	0.3%	665.5%
Single Family/Duplex	1,431	8.1%	2,242	12.6%	56.7%
Mobile Home Park	41	0.2%	38	0.2%	-8.5%
Commercial:					
Central Business District*	0	0.0%	96	0.5%	0.0%
Strip Commercial*	180	1.0%	76	0.4%	-57.7%
Industrial	21	0.1%	144	0.8%	598.5%
Institutional	37	0.2%	152	0.9%	311.7%
Transportation	281	1.6%	239	1.3%	-15.1%
Communication and Utilities	36	0.2%	52	0.3%	46.4%
Extractive or Wells	0	0.0%	50	0.3%	
Outdoor Recreation	317	1.8%	249	1.4%	-21.5%
Cemeteries	22	0.1%	28	0.2%	29.7%
Agricultural	5,431	30.6%	3,110	17.5%	-42.7%
Open Land, Shrub and Herbaceous	1,032	5.8%	3,570	20.1%	245.8%
Upland Forest	6,406	36.1%	3,663	20.6%	-42.8%
					-
Lowland Forest	991	5.6%	0	0.0%	100.0%
Water	1,193	6.7%	1,349	7.6%	13.1%
Wetlands	334	1.9%	2,645	14.9%	692.9%
TOTAL AREA (ACRES & %)	17,758	100.0%	17,749	100.0%	0.0%

Note: City and Village data included in the Township.

SOURCE: 1978 data: MIRIS, Land and Water Management Division, DNR 1978

SOURCE: 1996 data: GIS Research Center Western Michigan University & Allegan County GIS Department

*CBD was included in strip commercial in 1978

Land Use by Tax Class

Another measure of land use is to look at land use by tax assessment classes. This approach covers the use of the land but not the different characteristics such as vegetative cover, water, etc. Land use acres by tax class for the Tri-Communities are shown in Table 5-2. See also Map 5-2. It can be useful to compare land use as interpreted from aerial photographs and land use by tax class in order to view the potential for development. Land may be vacant or have shrub or wooded cover, but if classed as residential, commercial or industrial it has potential for development in the near future.

While about 2,200 acres are currently in residential land use, according to the 1996 Land Use/Land Cover Map (Map 5-1) and Table 5-1, there are over 10,500 acres classed as residential in Saugatuck Township (Table 5-2). This suggests a large portion of the Township is primed to be converted from vacant to residential development. However,

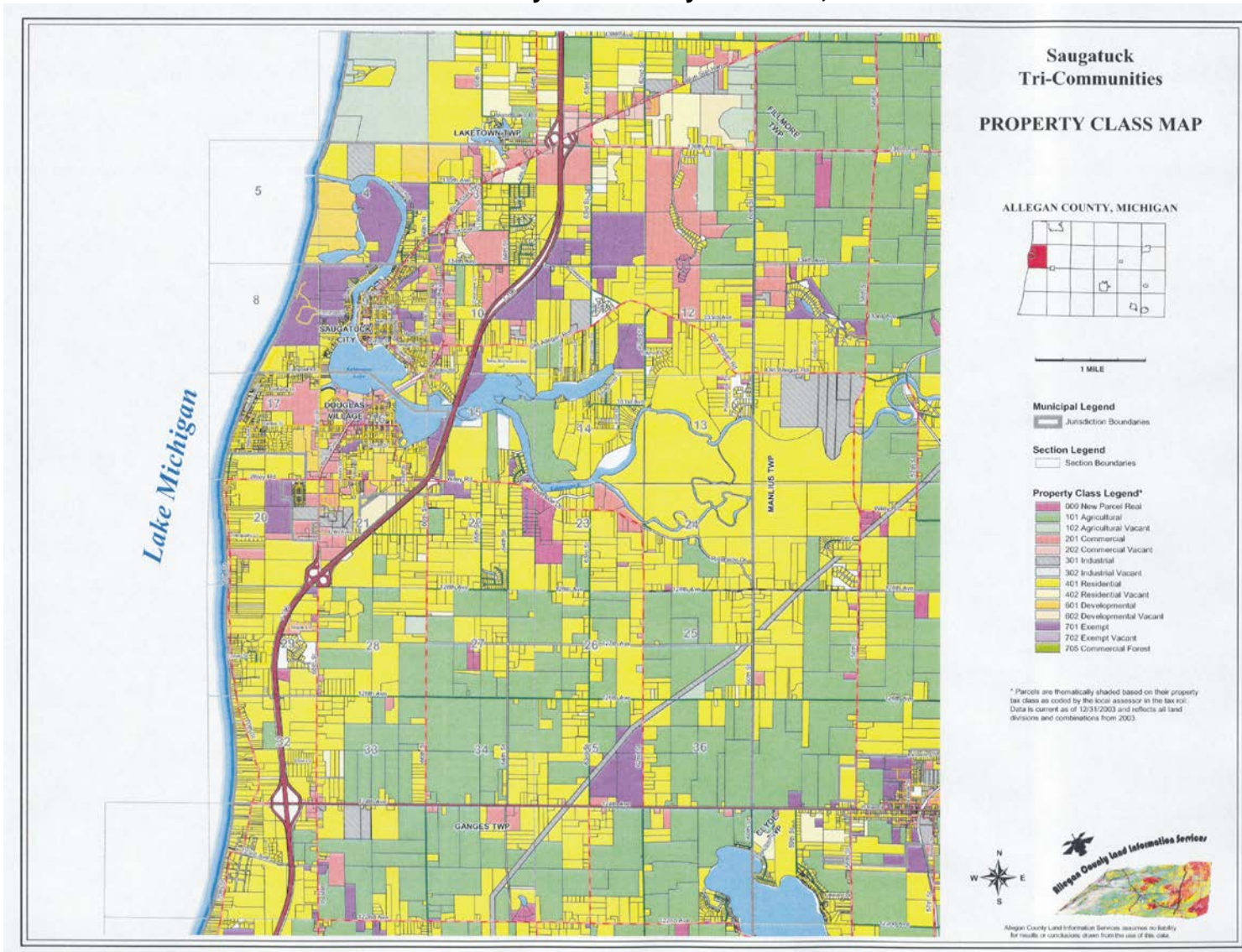
note on Map 5-2 that there are large areas classed as residential that are unbuildable, especially in the wetland areas in the Kalamazoo River floodplain.

Table 5-2
Land Use by Tax Class, Saugatuck City, Saugatuck Township and City of the Village of Douglas, in Acres, 2003

Class Code	Class	Saugatuck Twp	Saugatuck City	Douglas City of the Village	Total Acres by Class
000	New Parcel Real	291	6	14	311
001	Reference Real	59	1	0	61
101	Agricultural	3,488	0	0	3,488
102	Agricultural Vacant	91	0	0	91
201	Commercial	2,723	68	250	3,042
202	Commercial Vacant	7	0	14	21
301	Industrial	169	0	69	238
302	Industrial Vacant	2	0	0	2
401	Residential	8,644	507	1,387	10,539
402	Residential Vacant	1,686	0	7	1,693
601	Developmental	262	0	71	333
602	Developmental Vacant	43	0	0	43
701	Exempt	860	283	71	1,214
702	Exempt Vacant	0	0	0	0
705	Commercial Forest	0	0	0	0
Total Acres by Jurisdiction		18,326	865	1,885	21,076

Source: Allegan County GIS Department

Map 5-2
Tri-Community Land Use by Tax Class, 2003



AGRICULTURAL

The size of agricultural parcels in Saugatuck Township ranges from over 160 acres to under 10 acres, with the average size being about 43 acres. Agricultural land in the Township is used primarily for crops and orchards, with some livestock. See the parcel distribution on Map 5-2.

Prime Farmlands

Prime farmland is generally concentrated in the south central part of the Township. See Map 4-5. There is a fairly good match between the location of prime farmland soils and the location of agricultural land (see Map 5-1, Land Use/Land Cover). Prime farmland is of major importance in meeting the nation's short and long term needs for food. Prime farmlands have been identified by the USDA Natural Resources Conservation Service so that local governments can encourage and facilitate the wise use of valuable farmlands. Prime farmland is that which is best suited to food, feed, forage and oilseed crops. The soil qualities, growing season and moisture supply are those needed to economically produce a sustained high yield of crops.

Michigan Farmland Preservation Act

The Michigan Farmland Preservation Act of 1974 (PA 116), now Part 361 of PA 451 of 1994, allows landowners to enter into a voluntary agreement with the State whereby the land will remain in agricultural use for at least ten years. In return, the landowner is entitled to certain tax benefits. The program has been effective in helping to ensure that suitable lands are retained for farming. There are 74 acres of PA 116 lands in the Township, all of them in the southern half, in sections 27, 28 and 33. In 1988, there were 1,100 acres under PA 116 contracts. This is a reduction of nearly all PA 116 lands since the previous Comprehensive Plan was written. Contracts for the remaining PA 116 lands expire in 2004. This means this land is available for residential use and is no longer being managed for long term agricultural production. As of 2011 it appeared that fewer landowners were entering into agreements with the State under the Michigan Farmland Preservation Act of 1974 (PA 116) to keep their land in agricultural use for at least ten years. The years 2000-2005 were a time of relatively intense development of residential uses in the rural part of the Township. For the most part, this development was not on prime farmlands in the Township but in wooded and other open space lands.

Most of the prime farmlands in the Township are not suitable for intensive development because of soil limitations. However, there are some farmlands that are suitable for development.

RESIDENTIAL

Residential areas in the Tri-Community area vary widely in character between the rural areas of the Township and the urbanized areas of Saugatuck and the City of the Village of Douglas. The majority of residential development in the Township is scattered along county roads and along the Lake Michigan Shore. Most resort-residential development in all three communities is located along the Kalamazoo River and Lake Michigan. Single family structures are the predominant residential type. The "hill" in Saugatuck and the neighborhood surrounding the Village Center in the City of the Village of Douglas are other distinct residential areas. Most multiple family structures are concentrated in Saugatuck and the City of the Village of Douglas, with only one such development in the Township (Section 3). There are four mobile home parks in the Tri-Community area: two in the City of the Village of Douglas and two in the southern half of the Township. Some distinct residential areas existing within the three communities are described further

below. See the parcel distribution on Map 5-2.

Lakeshore Area

The Lake Michigan shore is fronted by many large single family homes along Lakeshore Drive for five miles from M-89 to the City of Saugatuck. This area is characterized by scenic vistas of the lake and the bluffs. Large trees line the road and many homes are on wooded lots. Many of the lots are very long and narrow. See the parcel distribution on Map 5-2. Where lots are long, there may be sufficient depth to move homes or rebuild as the bluff retreats landward over time. Where lots are very shallow, there is no room to adjust to bluff retreat and many of the “second tier” homes (those across the street from lakefront lots) may become “first tier” as homes currently on lakefront property are destroyed. See the discussion and photos in Chapter 4. This is likely to be a protracted process as bluff retreat does not occur at a constant rate and varies in rate along the shoreline.

A large portion of the lakeshore both north and south of the mouth of the Kalamazoo River is undeveloped or very sparsely developed. A portion of this segment of shoreline is in public ownership as Oval Beach Park. In 2011 the City of Saugatuck completed its acquisition of the 173 acres of natural dunes and 3,650 feet of undeveloped Lake Michigan shoreline, formerly owned by the Denison family, between the south Kalamazoo River pier and Oval Beach City Park. This was made possible through a partnership between the City; the Land Conservancy of West Michigan; a \$10.5 million grant from the Michigan Natural Resources Trust Fund; The Nature Conservancy; The Conservation Fund; and generous private donors. The Saugatuck Harbor Natural Area, as it is now called, is open year round for low impact uses such as hiking, fishing, bird watching and beach combing.

Kalamazoo River

Much of the area surrounding the Kalamazoo River east of the City of the Village of Douglas is a wetland, unsuitable for residential use. The area is also wooded and is habitat to many birds and other wildlife. In some places, homes overlook the Kalamazoo River and Silver Lake (a shallow bayou connected to the Kalamazoo River). The character of the Kalamazoo River area is widely different from other residential areas of the Township in that there are no farms or commercial/industrial development—aside from a marina in Section 23. Lot sizes in this area vary widely. Lots on the north side of Silver Lake tend to be very long and narrow and could pose land development problems if permitted to be subdivided any further. See the parcel distribution on Map 5-2.

Rural Areas

The rural areas of the Township are the southern agricultural, northeast, and riverfront-dunes areas. The southern agricultural area consists of farms, orchards, and a growing number of single family homes on large lots (10+ acres). Typically, these homes are located along the county roads at the perimeter of the sections. In addition to scattered development on large lots, there are several subdivisions. These are developments with 30 or less lots averaging approximately one acre each in size. The northeast area is a mix of woodlands and farms, with some steep slopes. Residences are mostly on large lots (40+ acres), with some on small lots within the large lots. Residences in the riverfront-dunes area north of Saugatuck are mostly on small lots fronting the Kalamazoo River. Most of that area is unspoiled wetland, dunes and beaches. See the parcel distribution on Map 5-2.

The City of the Village of Douglas

Approximately 25 blocks of long-established neighborhoods surround the center of the City of the Village of Douglas. These consist primarily of older homes with some homes less than 30 years old scattered throughout. Elsewhere in the City, residential development is concentrated along Lakeshore Drive and along Campbell Road, Wiley, and Water Street.

Saugatuck

Condominiums line the shore of Kalamazoo Lake along Lake St. and block a scenic view of the lake. Most of the City's year-round residents live above the steep ridge ("the hill") which separates the waterfront area from the rest of the City. Small cottages on very small lots line the west shore of Kalamazoo Lake along Park St. Tearing down smaller, older homes to be replaced by larger, newer homes will become a larger challenge in the next few years to retaining a "quaint small town" atmosphere.

COMMERCIAL

The major commercial areas in the Tri-Community area are in the northern part of the Township along Blue Star Highway, downtowns of Saugatuck and the City of the Village of Douglas, and in the City of the Village of Douglas along Blue Star Highway.

Blue Star Highway

The negative effects of commercial strip development has been addressed by zoning ordinances such as consolidation of driveways and parking facilities, grouping of stores into "mini malls", and site design standards which require that natural features be positively incorporated into new developments, as well as minimizing "asphalt landscaping". Siting new development back from the highway has been a major improvement. Sixty-five percent of the people responding to the 1988 Public Opinion Survey indicated that they did not want to see strip commercial development in the future. In the 2004 survey, the same question was not asked. However, appearance of the Blue Star Highway was important to survey respondents.

Commercial uses along Blue Star Highway in the Township include restaurants, gas stations, boat service, motels, auto repair, small offices, mini-storage buildings, firehouse and a mixture of small retail establishments. Blue Star Highway from 130th. Avenue south to M-89 has a rural character with a combination of wooded areas, open land, scattered residential development, and a "you pick" blueberry farm. Some highway oriented commercial uses are clustered around the interchanges with I-196.

Downtown Saugatuck

Commercial uses in downtown Saugatuck are primarily oriented to tourists and seasonal residents. Many of the businesses occupy large, older residential structures. Others occupy the old and historic buildings lining Butler Street. This business district has few parking spaces due to the compact arrangement of the area's original design and heavy pedestrian traffic. Parking is a seasonal problem and a permanent solution has not yet been formulated. There is a shuttle service between the downtown and the High School parking lot during peak use periods to help alleviate the situation. Businesses include bed and breakfasts, small and large restaurants, clothing stores, art galleries and numerous specialty shops, with boat service and marina facilities located along the waterfront. This commercial district has a unique historic character worth preserving and further enhancing and represents a great asset to the Tri-Community area as well as to the region and the state.

Downtown City of the Village of Douglas

This growing retail area consists of restaurants, public and private offices and specialty shops increasingly tourist/seasonal oriented. Other uses include the Post Office, Village Hall, restaurants, art galleries, police department, antique shops and the public library. Parking is located along both sides of Center St. and is adequate to meet current needs. There are few vacant lots and buildings in this area which could be used for new retail development. the City of the Village of Douglas has an active and expanding Downtown Development Association.

INDUSTRIAL

Industrial development is limited in the Tri-Community area. Less than 1% of the total land area is devoted to industrial uses. There are few small manufacturing firms. The Tri-Community area is located 150 miles from Detroit, 180 miles from Chicago and 36 miles from Grand Rapids along a major interstate highway. This is an advantageous location for small scale, light industrial development.

CULTURAL, HISTORICAL AND ARCHAEOLOGICAL RESOURCES

The Tri-Community area is rich in cultural, and historical points of interest and many archaeological sites can be found throughout the area. Leading economists and forward-thinking governmental leaders have recognized the social and economic value of promoting and preserving cultural and historic assets.

The state of Michigan has made community cultural; planning a key part of several of its most publicized and marketed economic development strategies: the “smart growth”; “heritage/cultural tourism”; and “cool cities” initiatives.

Community Cultural Base

The Tri-Communities are rich in cultural opportunities for residents and visitors. They include a long-standing chamber music venue and jazz performance series, an annual film festival, a children’s film festival, a professional theater venue, on-going art fairs summer school of painting and the arts, and many excellent art galleries. In addition, a number of civic and religious organizations exist, including Masonic, Lions and Kiwanis clubs, as well as several garden clubs. Since 2003 the Saugatuck Center for the Arts, a non-profit organization, was formed to serve as a venue for performance (music, dance, theater), film, arts education, exhibitions (arts, cultural, historical) and community activities.

Community Historic Character

The Tri-Communities are rich in history and many historic and archaeological sites can be found in the area. Equally important, the communities have been the home of a number of nationally and internationally important architects, artists and arts-related professionals. The absence of industrial development in the area has left much of these layers of history intact and still much in evidence as part of the visual make-up of the area. In addition, the communities have a number of architecturally or historically significant buildings, some by important American architects, as well as collections (neighborhoods) of historic structures.

Historic Buildings and Sites

Singapore, Michigan's most famous ghost town and once a thriving lumber town, lies

buried at the mouth of the Kalamazoo River. A plaque commemorating its existence stands in front of the Saugatuck City Hall. Historic and archaeological sites are designated by the Michigan Bureau of History.

The Michigan State Register of Historic Sites was established in 1955 to provide official recognition for historic resources in Michigan. Designated historic sites have unique historic, architectural, archaeological, engineering, or cultural significance. There are numerous State historic sites throughout the Tri-Community area, which are listed on Table 5-3. Old Allegan Road in Saugatuck Township is officially designated as a State Historic Site.

Preservation is an on-going activity. For example, as early as the 1940's the famous "lost village" of Singapore was placed on the National Register of Historic Places; in the 1980's inappropriate alterations to the Saugatuck Village Hall were blocked and alternate plans were implemented that were more respectful to the building's history; the city's former pump house was converted to a public museum in 1993; the City of the Village of Douglas Hall - Dutcher Lodge was restored; and the City of Saugatuck has mandated a part of the city as an historic district. In addition, a number of private property owners have engaged in restoration projects. Nearly a dozen properties in the Tri-communities are included on either or both the State and National Register of Historic Places.

State historic site or historic district designation does include tax benefits, but does not impose any restrictions upon the owner of the property. Saugatuck and the City of the Village of Douglas recently received the federal "Preservation America" Award which opens the door to federal grant money.

The Saugatuck-Douglas Historical Society is active in promoting, identifying and preserving many aspects of area history, including historical sites. It has undertaken a survey of area buildings, published nine books on area history and has collected some 12,000 photographic images relating to the community and its history. In the past four years it has given "Heritage Awards" to over 300 local property owners, builders and architects for their accomplishments in the area of new construction and preservation of existing structures. It operates the award-winning Saugatuck-Douglas Historical Museum.

Historic Districts

The City of Saugatuck has also taken local steps to preserve its historic character. PA 169 of 1970 permits the legislative body of a local government to regulate the construction, demolition and modification of all structures within a designated historic district. The City of Saugatuck has established an historic district within the oldest part of the city. Within this district, construction, addition, moving, excavation and demolition and exterior alteration and repair of structures or resources within the Historic District must comply with requirements set forth in the CODE OF ORDINANCES OF THE CITY OF SAUGATUCK, Chapter 152 HISTORIC DISTRICT REGULATIONS, and the U.S. Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. See Map 5-3 for the boundaries of the Historic District.

Douglas Historical Preservation Committee

The Douglas Historical Preservation Committee was formed in May of 1991. The purpose of this Committee is to discover, procure and preserve whatever may relate to

the civil, religious, social, cultural and natural history of the City of the Village of Douglas. Its mission includes: collecting oral histories, establishing a library of books, pamphlets, maps, manuscripts, prints, papers, paintings, photographs, historical, genealogical, archaeological and biographical materials relating to the City of the Village of Douglas area, and at a future time, maintain a museum for the purpose of exhibiting, illustrating and preserving antiquities descriptive of past and present resources of the the City of the Village of Douglas area. The Committee also plans to encourage and promote the study and enjoyment of history by lectures and other means; and to publish and distribute information relative to the City of the Village of Douglas area, as well as the physical preservation and when possible, the renovation of historic structures.

The focus of the past several years has been to raise funds and encourage the City of the Village of Douglas to renovate the landmark building in the center of town, known as the Dutcher Lodge, for a community center and Village Hall. This phase has been completed.

Archaeological Sites

Archaeological sites are of particular scientific value to the fields of anthropology, ecology and biology, and may have historic or ethnic significance as well. There are 120 archaeological sites scattered throughout the Tri-Community area, mostly related to Ottawa and Potawatomi cultures. Their exact locations have not been disclosed by the Bureau of History to protect them from exploitation. One of these sites, the Hacklander Site, located in Section 23 is listed on the National Register of Historic Places and has components representing Middle and Late Woodland periods. A second important site is the old Singapore site located at the north edge of the “new” (1906) harbor channel. Recipients of Federal assistance must ensure that their projects avoid damage or destruction of significant historical and archaeological resources. The Michigan Bureau of History reviews these projects to assess their impact on archaeological sites.

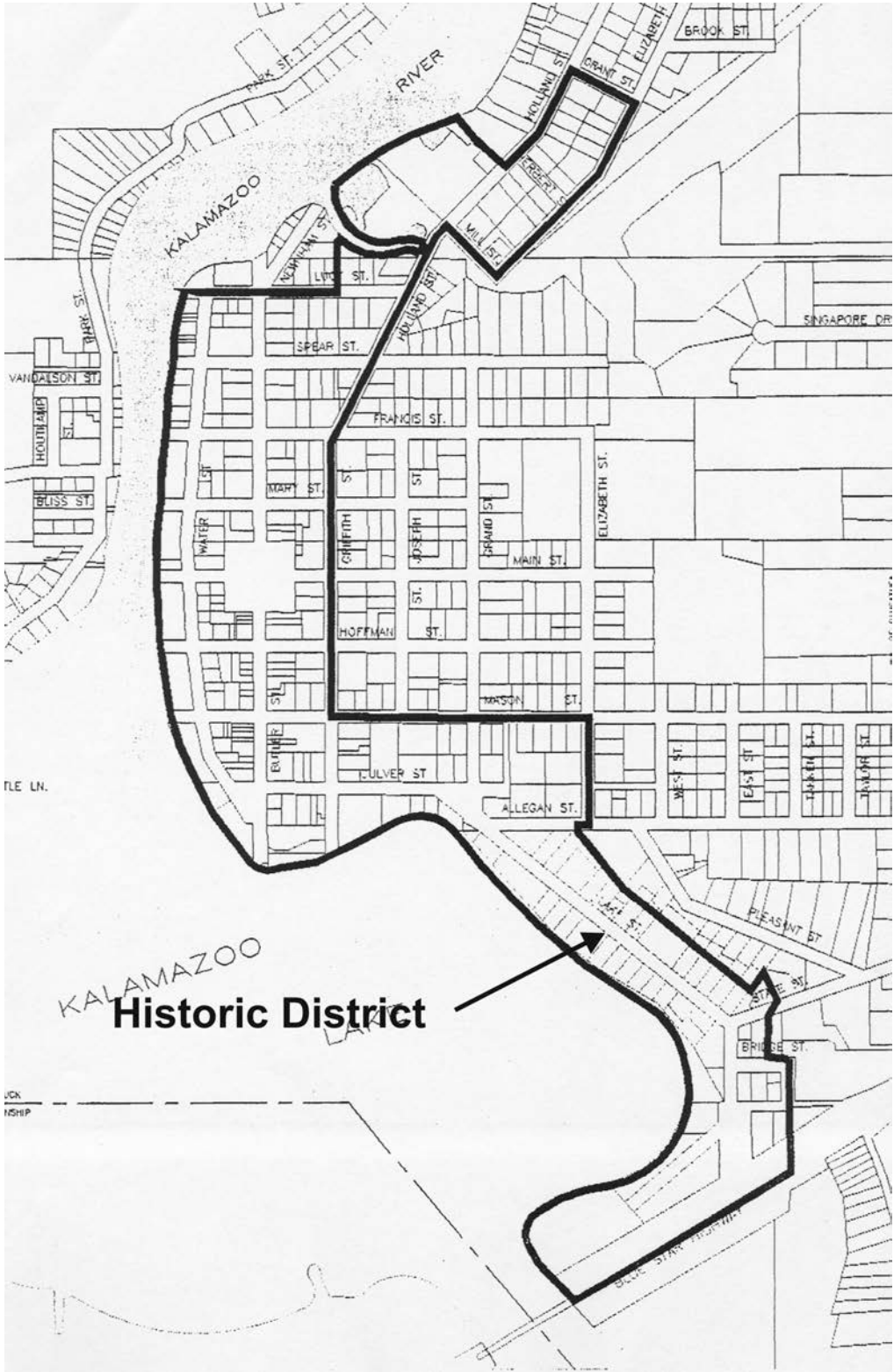
Table 5-3
State Historic Sites

DESCRIPTION	LOCATION
City of Saugatuck:	
All Saints Episcopal Church	252 Grand St.
Singapore (Village Hall)	Marker on Village Hall on Butler Street
Clipson Brewery Ice House Twin Gables Hotel (Singapore Country Inn is common name)	900 Lake St.
Horace D. Moore House (Park House Inn & B&B)	888 Holland St.
Warner P. Sutton House (Beachwood Manor)	736 Pleasant St.
Fred Thompson- William Springer House	633 Pleasant St.
First Congregational Church	296 Hoffman St.
City of Village of Douglas:	
Dutcher Lodge #193 Hall	86 Center St.
Asa Goodrich House	112 Center St.
Sarah Kirby House	294 W. Center St.
Saugatuck Township:	
Shiver's Inn (historic name) Oxbow Inn (common name)	Built in 1860's, originally as a resort during lumbering era. In 1910 Art Institute of Chicago used it for summer art school.
Hacklander Site (National Historic Site)	Section 23

Source: Michigan Bureau of History

The Bureau of History also recommends that those proposing development projects in Saugatuck Township contact the State Archaeologist to determine if the project may affect a known archaeological site. This is particularly critical given the existence of Indian burial sites in the area. If an important archaeological site will be affected, archaeologists will negotiate a voluntary agreement to preserve those artifacts. The Bureau of History serves in an advisory capacity and has no legal authority to restrict development rights.

Map 5-3
Saugatuck Historic District



John: f:\winword\tri-communities\final\CHAPTER 5 EXISTING LAND USE final.doc
C:\Evan\Tri Comm Final 6 2 05\CHAPTER 5 EXISTING LAND USE final 6 2 05.doc

Chapter 6 PUBLIC FACILITIES AND SERVICES

INTRODUCTION

This chapter discusses public facilities and services other than those related to recreation (see Chapter 7: Recreation). These include utilities, public safety, schools, transportation and local government lands and facilities.

UTILITIES

Sewer and Water Authority

The Tri-Communities area sewer and water systems are managed by the Kalamazoo Lake Sewer and Water Authority (KLSWA), which is responsible for operation and maintenance and provides water production and wastewater treatment. Each community is responsible for providing and financing their own infrastructure.

The service areas for the sewer and water systems, shown on Map 6-1 include Saugatuck City, the City of the Village of Douglas and a portion of Saugatuck Township. Water service also extends into Laketown Township.

Proposals for modifications or expansions of water and sewer must take into consideration the permanent population, seasonal population, number of daily visitors, and future industrial flow. Peak periods for public utilities in the Tri-Communities area are more pronounced than in typical communities due to the relatively high seasonal and daily visitor populations.

Water System

The source of the municipal and private water supply is groundwater. Capacity of the municipal system is 3.6 million gallons per day and a firm capacity of 2.8 million gallons per day. Firm capacity is the amount of water which can be pumped with the largest system well out of service. Using Lake Michigan as a water source has been studied in the past, but is not as cost effective as groundwater at the present. Pockets of groundwater contamination in the Tri-Communities affect the ability of individuals and the communities to rely on groundwater. Both Saugatuck and the City of the Village of Douglas have policies encouraging their citizens to hook up to city/village water and sewer lines.

The reliability of the water system depends on water supply sufficient to meet peak demands, storage capacity to provide fire flows for sufficient duration, adequate water pressure, water quality and distribution system loops. There is no deficiency in meeting peak demands nor is there any deficiency in pumping capacity. The Maximum Day Demand to date has been 1.69 M.G.D. (June 2003) while the firm capacity is 2.8 M.G.D. The water is not treated, except for chlorination and iron sequestering. Parts of the current water system date back to 1907 in Saugatuck, and to 1914 in the City of the Village of Douglas. In addition, some water mains are old, small and substandard; leaks are a problem on older service lines. Growth is restricted in areas not serviced by the system.

The Kalamazoo Lake Water and Sewer Authority provides water service to Saugatuck

City, the City of the Village of Douglas and portions of Saugatuck Township through a joint water agreement. A new Joint Water Agreement was approved in 2001. The Joint Water Agreement:

- Provides for the interconnection of the Saugatuck-Douglas system with the Township
- Does not require any payment from one party to another
- Reserves 50 percent of the total well capacity of the Township customers of the initial service area
- Bars the Township from selling capacity beyond the 50 percent level to anyone outside the service area without the written consent of all three jurisdictions
- Requires that Saugatuck, the City of the Village of Douglas and Saugatuck Township continue to own their respective water systems
- Bases rates on strict cost of service principles, with each government determining the debt service component charged to customers within its boundaries.

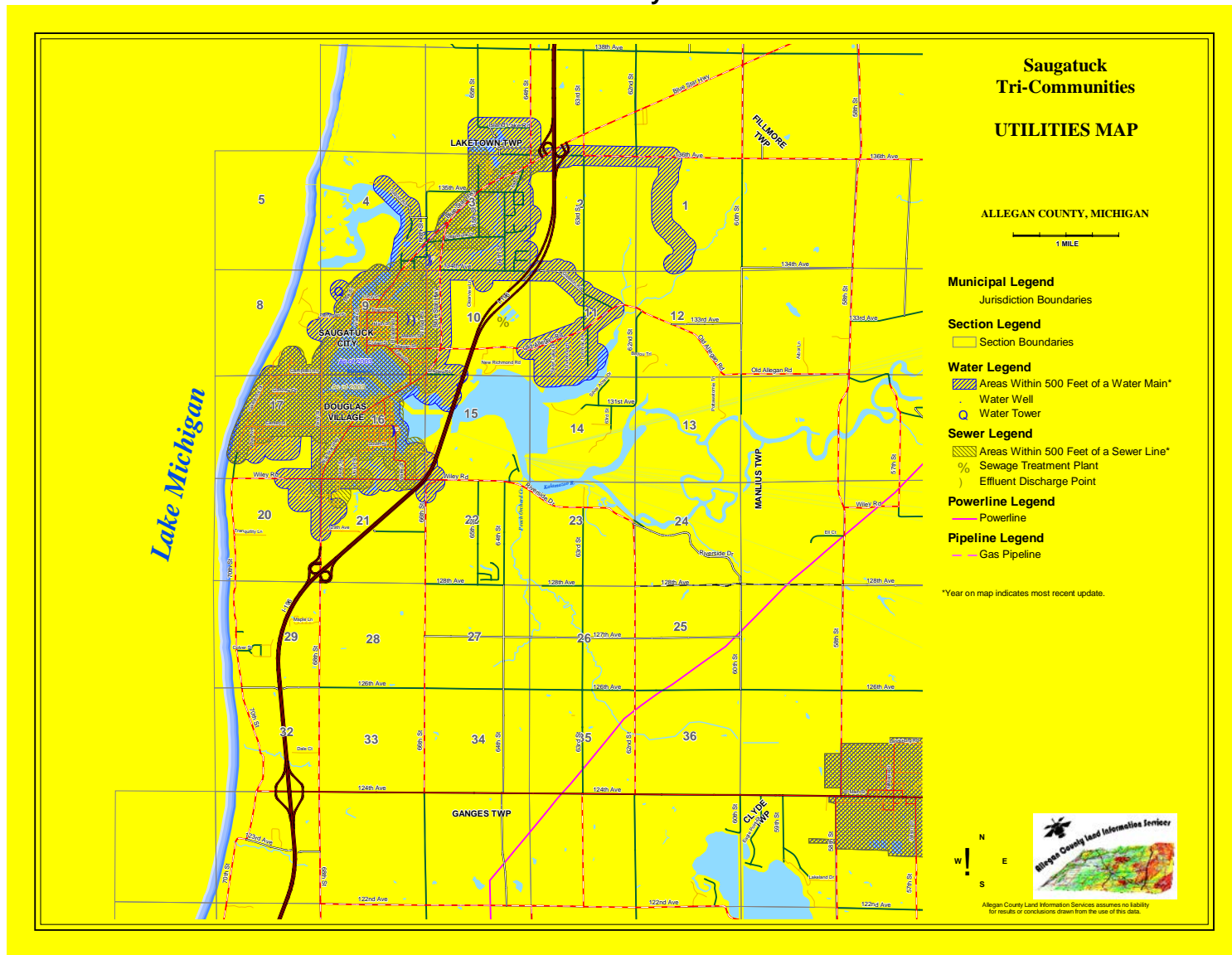
In addition to supplying water to the Tri-Communities, KLWSA also provides water to a portion of Laketown Township. An agreement was reached in 2003, following several years of negotiation, to provide Laketown Township with 20,000 gallons of wastewater per day (gpd) with no limitation on water. Previously, KLSWA had an agreement to provide Laketown Township with up to 10,000 gpd of wastewater as part of an arrangement that included the provision of water to the State Correctional Facility in Laketown Township, now closed. Saugatuck Township currently supplies water to portions of Laketown Township (Goshorn Lake) under terms of a Water Agreement signed in November, 1998.

The existing water system still has many dead end lines, which are susceptible to water discoloration and development of tastes and odors due to stagnation. The best arrangement for water mains is the gridiron system, where all primary and secondary feeders are looped and interconnected, and the small distribution mains tie to each loop to form a complete grid. If an adequate number of valves are inserted, only a small 1 block area will be affected in the event of a break. An 8-in. interconnection between the Township well system and the Saugatuck-Douglas system has been established. Two river crossings exist. One 12-in. connecting Saugatuck with the City of the Village of Douglas at the Blue Star Bridge; one 16-in. connecting the Mt. Baldhead Reservoir to the 12-in. main in Water Street within the city of Saugatuck.

In 1984 and 1985, a one million gallon above-ground storage tank was constructed, which allowed Saugatuck and the City of the Village of Douglas to meet normal and fire protection demands. Now that Saugatuck Township is included in the system, the storage tank has helped raise the fire protection rating for Saugatuck Township from a 9 to a 5, a better rating that reduces insurance costs to businesses and home owners (firefighting equipment capacity also contributed to improved rating). Additional storage capacity is needed if service were extended to the southern portions of the Township. If water were to be extended to areas of the Township south of the City of the Village of Douglas elevated storage or a booster pumping station might be required to provide adequate system pressure to the area.

Recently, the City of Holland proposed to extend a water intake into Lake Michigan from Saugatuck Dunes State Park. Significant opposition has left that proposal in limbo.

Map 6-1 Tri-Community Utilities



Source: Allegan County GIS Department

About 77 homes in the “Triangle Area” of Saugatuck Township were forced to use bottled water until a water line was extended to them. These homes were in the area bordered by 63rd Street, Old Allegan and Gleason Roads. Funds for the \$1.6 million project were provided through the Remediation and Redevelopment Fund and the Environmental Protection Bond Fund. Groundwater contamination has also been found in shallow wells in the area of M 89 and Exit 34 in the Township. The City of the Village of Douglas constructed an aerated Iron Removal Plant in 1994 which effectively treats contaminated groundwater prior to distribution.

Sewer System

Wastewater treatment is provided at a treatment plant located in Saugatuck Township north of the Kalamazoo River. The facility was constructed by the City of Saugatuck and the City of the Village of Douglas in 1978 with the aeration system upgraded in 2000. The sewer treatment facility was upgraded with funds from State of Michigan Clean Water State Revolving Fund (“SFR”) assistance in 2012 through 2014.

The treatment system provides biological and clarification processes for the reduction of BOD (biochemical oxygen demand) and suspended solids, including chemical precipitation for the reduction of phosphorus from fertilizers and detergents. The plant has two aerated lagoons and was designed for incremental addition of lagoons to accommodate increased wastewater flow. Capacity is currently 1 million gallons per day. The system currently runs at 45% capacity during the season and 35% capacity during the off-season. The facility was designed for heavier BOD loading than other facilities its size, in order to accommodate a pie factory and thus may not need more capacity of that type for many years. The factory closed in 1998. The discharge is to the Kalamazoo River on the north side of Saugatuck.

Photo 6-1
Waste Water Treatment Plant



Source: Aaron Sheridan

Overview of Sewer Agreement (Approved in 2001)

- Provides sewer service to the Township by allowing them to purchase a percentage of Saugatuck's reserve capacity for \$262,500. Over a six-year period this works out

to a total capacity of 100,000 gallons which the Township has purchased and paid for.

- Gives the Township access to the force main going to the old state prison.
- Preserves the right of Saugatuck and the City of the Village of Douglas to determine the use and accessibility of their infrastructure and under what conditions.
- The Township provides the infrastructure.

In 1957, many of the storm sewers in the City of Saugatuck were converted to sanitary sewers. This system was expanded in 1979 with PVC pipe, and some improvements were made to the old system. The sewer system in the City of the Village of Douglas was built entirely since 1978. The two jurisdictions merged their facilities in the late 1970's to form the KLSWA. There has been some infiltration into the system from groundwater due to faulty manholes, pipe, and roof drains. The impacts of this infiltration were most pronounced when Lake Michigan water levels were high. The capacity of the wastewater treatment facility would have to re-rated to 1.2 MGD for the Township. Projections for wastewater treatment for Saugatuck Township include extending service to the south lakeshore residential area and the area of the Township northeast of I-196.

The two basic alternatives for expanding the wastewater collection system in the Township are pressure sewers and gravity sewers. Pressure sewers are generally used where topography or spacing between services prohibit the use of gravity sewers or where high water table and difficult soil conditions prevail, such as in the Tri-Community area. These systems have lower construction costs and higher maintenance and operation costs than gravity sewers. Gravity sewers are the most common in use due to their minimal operation and maintenance expense. However, the cost of initial construction can be substantial for small communities, especially if construction costs are further aggravated by difficult topography and soil conditions. In addition, it is rare that an entire community can be served by gravity sewers. The existing system in Saugatuck and the City of the Village of Douglas is a gravity system, with local areas of pressure.

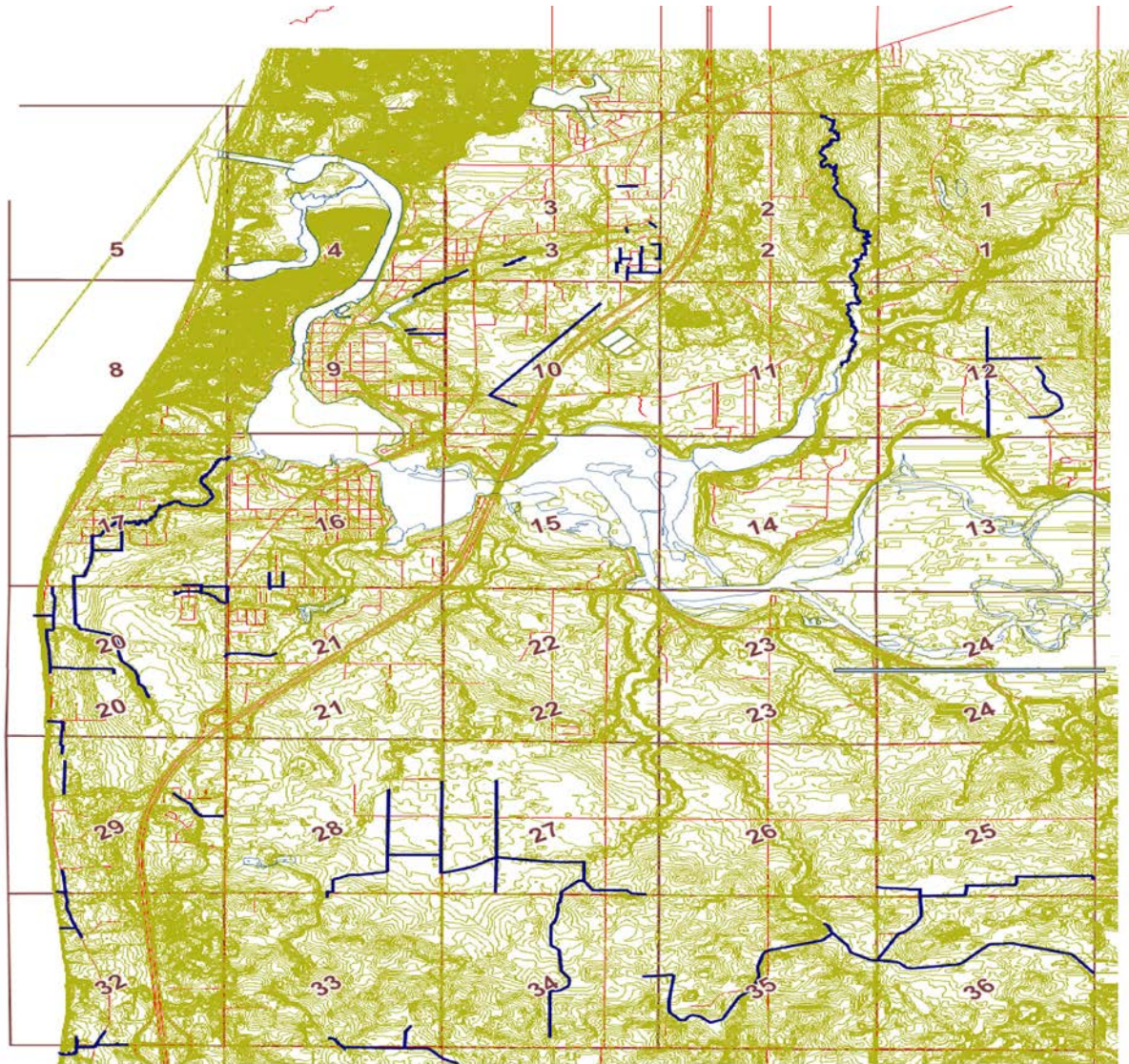
Storm Sewers

There are very few mapped stormwater drains in the Tri-Community area. Damage has not been a significant problem in most developed areas because of sandy, high permeability soils and lack of large paved areas. It is suspected that some stormwater drains, individual residential and business gutters flowing into the sanitary sewer system which need to be removed. Efforts are underway to improve stormwater drainage.

County Drains

County Drains are found throughout the Tri-Community area, but mostly in the southern portion of the Township. A network of drains in Sections 27, 28, 34, 35 and 36 facilitates the removal of water from an area of poorly drained soils which is used as farmland. The Allegan County Drain Commission placed five drains along the Lake Michigan shore in Sections 20, 29 and 32. These drains help stabilize sand and clay bluffs along Lake Michigan, which are being eroded by groundwater. Other County drains in the area are located in the northeast corner of the Township. See Map 6-2.

Map 6-2
Tri-Community County Drain Locations



Gas, Electric, Telephone and Cable

There are no major gas or oil pipelines in the Tri-Community area. Natural Gas service is provided by Michigan Gas and Semco Companies and approximate locations of gas mains are shown on Map 6-1. There is one major 760 kilovolt electric transmission line which crosses the extreme southeast corner of the Township. See Map 6-1. Electricity in the Tri-Community area is provided by Consumers Energy. Mobile Telephone service is provided by AT&T, Verizon and others, and landline service is offered by Frontier Communications; cable TV service is provided by Comcast of Western Michigan. High speed internet service is provided by satellite, cable, wireless and telephone.

TRANSPORTATION

Overview

Transportation facilities within the Tri-Community area include streets and roads and a public transportation system (Interurban). The Tri-Community area is served by a major Interstate highway (I-196) and by a State highway (M-89). Blue Star Highway, part of the Great Lakes Circle Tour, is the other major highway serving the area. The nearest railroad is the AMTRAK passenger rail system in Holland.

Transportation facilities are important in stimulating growth for the Tri-Community area and its location is an asset for attracting further economic and industrial development. Increased non-motorized transportation options, including pedestrian and bicycle trails could further enhance summer recreation opportunities. Providing safe non-motorized transportation paths between downtown Saugatuck, the City of the Village of Douglas and the lakeshore beach areas also offers an opportunity to reduce vehicle traffic in core areas.

Road Classifications and Volumes

Roads are classified according to the amount of traffic they carry and the nature of the traffic. Four common categories are local streets, collectors, local arterials, and primary arterials. Local streets typically provide access to residences with speeds from 20 to 25 mph. Collectors connect local streets to arterials and speeds average 25-35 mph. Primary arterials facilitate larger volumes of traffic which generally originate and terminate within the Tri-Communities area, with a trip length of ten miles or less and an average speed of 35-45 mph. Primary arterials are typically used for high speed-through traffic, and access to the roadway is usually limited. Freeways or expressways are regional arterials and are the highest road classification in the Tri-Community area. I-196/US-31 links Saugatuck with nearby Grand Rapids and from the south links with cities such as South Haven and Benton Harbor. See Map 6-3 for road classifications. A paved county primary is a local arterial, while an unpaved county primary is a collector. Each class of road has an important function in maintaining the efficient flow of traffic and it is essential that adequate transportation facilities exist or can be efficiently provided.

Driveways should be limited and widely spaced along primary arterials and collectors to reduce traffic congestion and improve safety. Therefore, low intensity land uses with wide lot widths should be built to keep the access points to a minimum. Where commercial use is permitted, shared driveways, connected parking lots and service drives should be used where possible.

PA 51 of 1951 provides for the classification of all public roads, streets and highways for

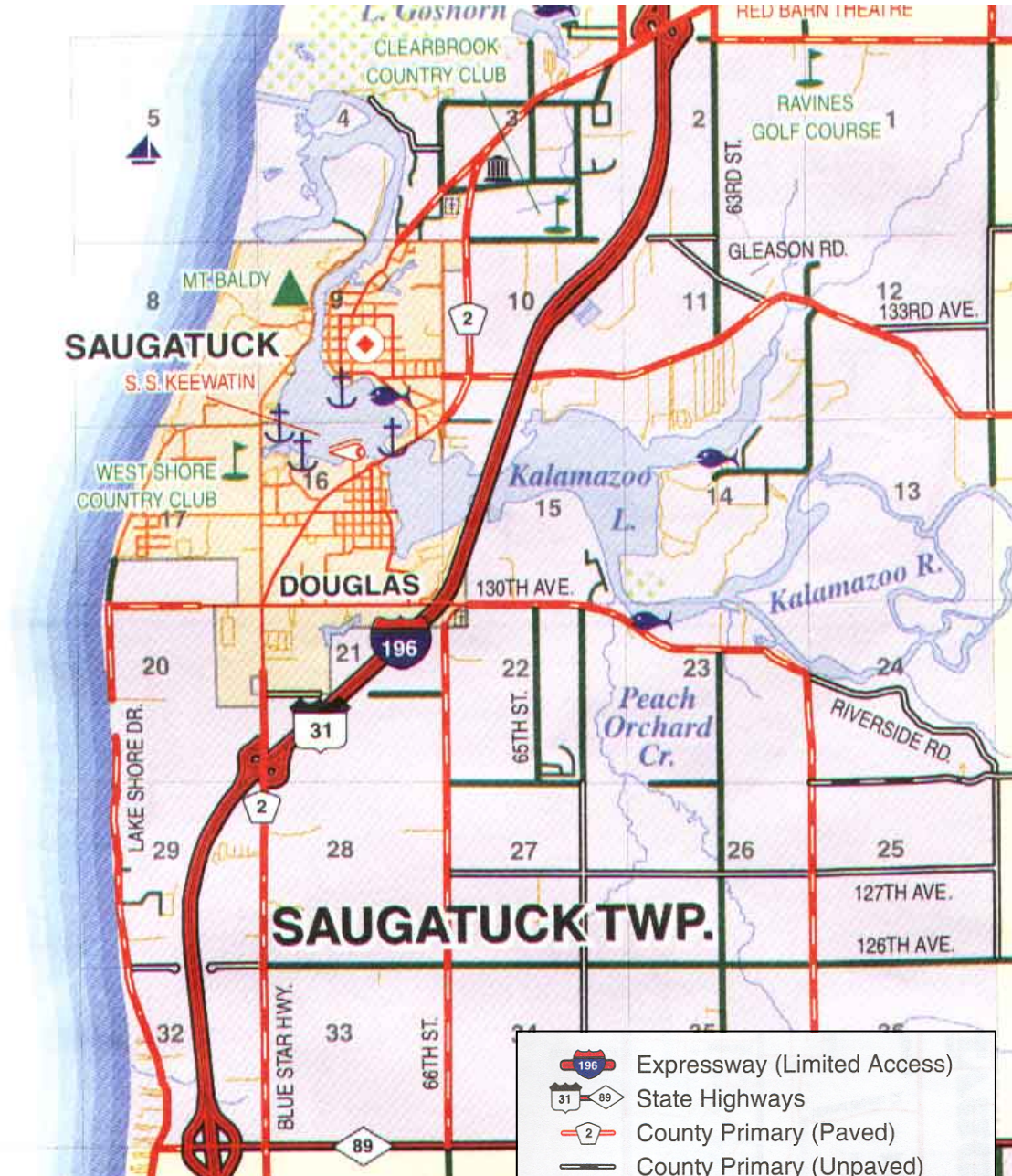
the purpose of managing the motor vehicle highway fund. The classifications which pertain to the Tri-Community area are "County-Wide Primary Road" and "County-Wide Local Road" in Saugatuck Township, and "Major Streets" and "Minor Streets" in Saugatuck and the City of the Village of Douglas. Funding is provided to cities and villages for street maintenance and construction based on the number of miles of streets by class within each community. Roads in the Township are managed by the Allegan County Road Commission, which receives Act 51 funds based on the mileage of roads in each class under its jurisdiction. In addition, Township residents passed a millage in 2003 to help pay for road improvements, primarily paving. This is used to cost share with the County Road Commission.

Photo 6-2
Local Street in the Tri-Communities



Source: Aaron Sheridan

Map 6-3
Road Classifications



Source: Allegan County Road Commission, 2004

Map Addenda
 The end of Park Street in Saugatuck Township as been abandoned and does not extend to the lagoon, as shown. Where the road turns at the top of the hill toward the Oxbow, a line shows an "other road." The road does not exist. Near the entrance to the City water reservoir a line shows an "other road." It does not exist—it is a private easement.

- Expressway (Limited Access)
- State Highways
- County Primary (Paved)
- County Primary (Unpaved)
- County Local (Paved)
- County Local (Unpaved)
- City Road (Major)
- City Road (Minor)
- Other Road
- MDOT Car Pool Lot
- Expressway Rest Area
- Expressway Exit Number

Traffic Counts

The number of vehicles that travel on a roadway segment on average per day is a useful indicator, over time, is very helpful in traffic planning. Changes in traffic counts help guide establishment of priorities for road improvements, as well as assisting with the evaluation of impacts of new development and projecting future traffic conditions.

Of course, the highest volume roadway in the Tri-Communities is the freeway. MDOT 24 hour average daily traffic for I-196/US-31 in the Tri-Community area was 21,300 vehicles in 2002. This volume is likely to grow significantly over the next twenty years as the southbelt freeway segment is completed and as western Ottawa County continues to develop. The primary significance of these changes will be steadily rising noise levels along the freeway. It will be very important for the Township and Village to retain and enhance the thick natural tree buffer along the freeway, if nearby homeowners want to be able to enjoy outdoor conversation.

In order to establish a baseline for future traffic changes, on August 6-8, 2004 traffic counts were taken in 19 locations. The results are listed on Table 6-1 and depicted on Map 6-4. Older counts are also listed. The August 2004 traffic counts cannot be characterized as average daily traffic because they were taken during a peak summer weekday and weekend. Thus, they should be viewed as peak summer traffic. They provide an excellent basis for tracking future traffic changes.

Because of the dearth of earlier traffic counts, few observations can be made about changes in traffic volume. The most significant observation is the growth in traffic on Blue Star Highway (BSH) north of the Y. The Washington St. traffic and BSH traffic merge northbound (and split southbound). While it is unfair to compare traffic growth here to a 26 year old count (1978, which is about 1/3 of the current level), anyone living in the area knows traffic in this area is increasing. New homes in the Township (rather than an increase in tourists) probably account for most of the growth in traffic on BSH in this area. This is because most new residents commute to jobs, school or expanded shopping opportunities in communities to the north and east of the Tri-Communities. To better understand traffic growth in this area, the Township should ask the County Road Commission to count traffic both east and west on 134th and on Old Allegan Road in the summer of 2005. Counts are likely to be in the range of 2,000 vehicles per day if the counts on Wiley Road are a comparable measure. New development in the Village and Township on west Wiley Road has increased counts there nearly 10 times in 20 years.

At the south end of Blue Star Highway in the City of the Village of Douglas, traffic counts have remained about the same as in July 1987. This suggests that residents of new development are relying largely on north BSH for local arterial trips (and not driving south to get on the freeway sooner, even though that is a greater distance). The absence of other roads parallel to BSH leaves no opportunity to spread local north/south trips on other roads, and the Lake (on the west) and extensive wetlands (on the east) makes another bridge crossing of the Kalamazoo River unfeasible.

Table 6-1
Tri-Community Traffic Counts

Map Location	Location	August 2004 24 Hour Combined AM & PM Average for Friday-Sunday	Older 24 Hour Traffic Counts
1	Blue Star Highway between 64 th Street and Exit 41	14,567	5,319 (1978)
2	Blue Star Highway south of Holland (Washington) Street	8,840	
3	Blue Star Highway south of Allegan Street	9,303	
4	Blue Star Highway north of Lake Street	10,070	
5	Blue Star Highway between Bridge and Lake Street NB	8,187	
6	Blue Star Highway between Bridge and Lake Street SB	10,137	
7	Blue Star Highway south of 129 th Street	8,908	10,575 & 8,256 (two days in July 1987)
8	Blue Star Highway south of Exit 36	5,462	
9	Butler Street north of Hoffman Street	2,983	
10	Center Street east of Union Street	2,816	
	Center Street at Blue Star Highway	Not a 2004 count location	10,861 (1985)
11	Center Street east of Ferry Street	4,580	
12	Wiley Road east of Summer Grove Development	2,178	285 (1982)
13	130 th Avenue east of 66 th Street	2,183	
14	Park Street north of Campbell	3,539	
15	Park Street south of Perryman	3,216	
16	Park Street north of Perryman	1,316	
17	Lakeshore Drive south of Tranquility Lane	682	
18	Lakeshore Drive south of Wiley	834	
19	Washington west of Blue Star Highway	6,061	

Nevertheless, traffic volumes generally across all three communities are still not very large relative to existing road capacity. However, future residential growth, largely in the Township, will continue to add vehicles to existing county primaries, and especially to BSH. Rising volumes on north BSH will likely also result in increased pressure on the Township for more commercial development. Which commercial uses are allowed, and the degree to which they duplicate existing commercial uses (such as the grocery store, pharmacy and hardware store) will have a lot to do with the continued viability of the

local service dimension of the existing business districts in Saugatuck and the City of the Village of Douglas.



Source: Aaron Sheridan

Speed Limits

Vehicular speed limits are very low in the downtown areas of Saugatuck and the City of the Village of Douglas. The speed limits are generally 20-25 mph on local streets. The speed limits on Blue Star Highway within the Tri-Community area change four times along the corridor. Blue Star Highway's speed limit is 50 mph on the north side of the City of Saugatuck. Traveling south, Blue Star splits, one arm turns into Washington Road heading into downtown Saugatuck. The other arm continues to bypass the City, but the speed limit decreases to 35 mph. It continues to be 35 mph south past the City of the Village of Douglas, to the intersection of 129th Street and Blue Star Highway, when the speed limit increases to 45 mph. South of the I-196/US-31 intersection the speed limit on Blue Star Highway increases to 55 mph. Speed limits on paved County roads are generally 55 mph.

Crash Locations

A review of crash data from 2000-2003 for the City of Saugatuck and the City of the Village of Douglas indicated that there were 21 crashes with injuries reported and no fatalities. The data included all roads within the City and Village. The road with the highest number of injury related crashes was Blue Star Highway with six crashes with injuries reported for the three year period. Higher crash severity is expected on higher speed roads, particularly with numerous driveways. Low speeds on local roads within the City should keep the crash severities low. Crash data did not specify the type of crash (e.g. if it was multi-vehicle related, pedestrian or bike related or related to alcohol or drug use). The mix of pedestrians, bicycles and automobiles in downtown areas of Saugatuck and the City of the Village of Douglas should be periodically reviewed based on more detailed crash reports to ensure safety for pedestrians and bicyclists.

There is currently a lack of crash data available for Saugatuck Township roads. Without documentation, it is difficult to determine if there are any problems. The Township could request a copy of every crash report prepared by the Sheriff's Department or State Police within the Township.

Blue Star Highway

Blue Star Highway serves as a primary arterial. It is important to the Tri-Community area, not only because it is a gateway to visitors entering the community but also for local travel between communities. Several issues are important.

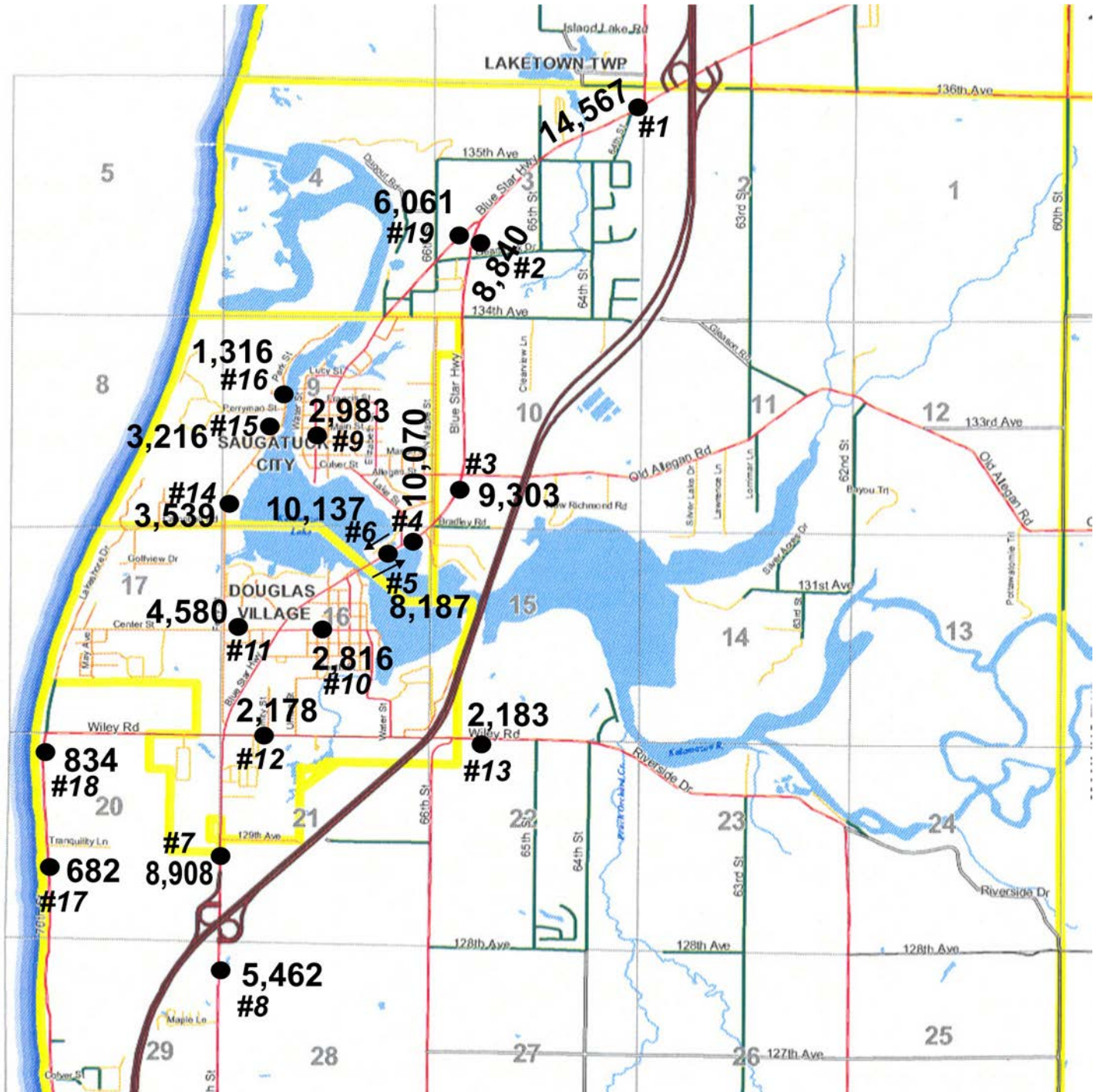
First, there is a lack of aesthetic on the corridor. Over 74 % of people responding to the public opinion survey in 2005 noted that the appearance of the highway was of high or extremely high importance. Setbacks vary on developments; there are few sidewalks, and no uniform landscaping. Weak regulation of strip commercial development in the past has allowed haphazard placement of signs and driveways. Second, access to commercial and industrial establishments along arterial roads should be better controlled on Blue Star Highway. Wide driveways and open shoulders lead to an elevated risk of crashes. There are few designated pedestrian traffic areas or bike paths, causing pedestrians to use the shoulder, unsafely. The Township has paid to pave the shoulders, and these are often mistaken for actual lanes, thus posing a safety hazard. A boulevard could improve appearance, safety and traffic control and should be one of the alternatives examined if capacity improvements are considered. Specifically, right turn arrows should be painted on the pavement in the turn lane at Blue Star and Holland Street in the north Township. There is no cooperative maintenance arrangement between Saugatuck and the City of the Village of Douglas for Blue Star Highway and the County Road Commission.

Photo 6-4
Blue Star Highway Needs Better Access Management



Source: Aaron Sheridan

Map 6-4
 Tri-Community Traffic Count Locations



Source: Allegan County GIS, Planning & Zoning Center, Inc. and Traffic Data Specialists, Inc.

Lakeshore Drive

Lakeshore Drive provides a scenic link between areas along the Lake Michigan coast. Lakeshore Drive was closed off in some areas in the mid-1980's because of severe bluff erosion. The road is currently a dead end in this area, with no plans to reconstruct it, due to the high costs and inevitability of shore erosion. Lakeshore Drive should continue to function as a limited access road for those accessing residential property. A non-motorized path connecting Lakeshore Drive where it has been washed out would be a welcome addition in this area. However, the private property/easement question must first be resolved.

Transit

The Interurban is the area's public transportation system and is funded in part by a 1 mill assessment. The service was started in May 1980 as a two-year experimental project and was initially funded at 100% by the State. Following the experimental period, some of the cost burden was borne by the Tri-Communities. The system had seven buses and in 2003 there were approximately 46,000 riders. The Interurban is governed by a board consisting of members from all three communities. The system is demand responsive with no fixed routes or schedule.

Intercity bus service, provided by Greyhound, can be accessed in nearby Holland and South Haven.

Photo 6-5
Interurban Vehicle



Source: Felicia Fairchild, Saugatuck Douglas
Convention and Visitors Bureau

Non-motorized Transportation

The City of Saugatuck and the City of the Village of Douglas are walkable communities that are suited for pedestrians and bicyclists. This atmosphere should be protected and promoted by expanding dedicated pedestrian and bicycle paths, particularly with the tourist population that utilizes the community in the summer months. However, comprehensive trails between popular destinations have yet to be constructed in the Saugatuck/Douglas area. Minimally a non-motorized path between Saugatuck and the City of the Village of Douglas would give visitors access to each downtown area without getting into their automobile. Currently, the closest regional non-motorized trail is the

South Haven to Kalamazoo bike trail. Trails from the City of the Village of Douglas to the Oval Beach and from Saugatuck to the Dunes State Park and other points north should also be planned and constructed. Trails should be designed for all-season use so cross country skiing and snow shoeing would also be available.

Air

The Tri-Communities are served by the Gerald R. Ford International Airport in Grand Rapids, which is within 50 miles of the region and is served by 11 major airlines with 150 flights per day. Gerald R. Ford International Airport has grown dramatically over the last few years, in 2002, the airport serviced just under 2 million passengers. It was the first airport in the nation to implement 100% baggage screening on all flights.

The Tri-Communities are also served by the Kalamazoo/Battle Creek International Airport, which is located in Portage, about 60 miles from the region as well as the South Bend, IN airport also located some 60 miles away. In 2002 the airport served over one half million passengers with 63 daily arrivals and departures on six major airlines.

POLICE, FIRE AND EMERGENCY SERVICES

Fire

The City of Saugatuck, the City of the Village of Douglas and Saugatuck Township are included in the Saugatuck Township Fire District. This district is managed by a seven-member board formulated under Michigan Public Act 33, and made up of two representatives from each of the three jurisdictions and one at-large member selected by the Board. The Saugatuck Township Fire Department has a full-time Chief and deputy Chief with the rest of the department being comprised of approximately 24 paid, on-call first responder/fire fighters. There is one fire station located at 3442 Blue Star Highway near the intersection of 134th Avenue (North Street in the City of Saugatuck) and Blue Star Highway. The fire station houses vehicles, offices and a meeting room, with a total of 9,600 square feet.

From 2003 to 2013 the department has responded to approximately 6,000 emergency calls, approximately 74% were medical, 10% fire and 16% classified as other.

Police

Police protection for the Tri-Community area is provided by the Allegan County Sheriff Department, the Michigan State Police, and the Saugatuck-Douglas Police Department. The State Police maintain the Saugatuck team post at the Saugatuck Township Hall on Blue Star Highway. The facility is staffed with four to five officers. The Allegan County Sheriff Department has one car assigned to cover the west side of the county. The State Police and the Sheriff Department respond upon request in all three jurisdictions.

The Saugatuck-Douglas Police Department has eight full-time officers including the Chief of Police and an office clerk. Police offices are currently located at 47 Center Street in Douglas.

Emergency Services

Ambulance services are provided by the American Medical Response (AMR). The West Michigan division of AMR is based in Grand Rapids with operations serving Kent, Ottawa and Allegan Counties. The Saugatuck Fire District employs medical first responders that answers approximately 700 calls per year.

Hospitals

The nearest hospital to the Tri-Communities is Holland Community Hospital, 9.4 miles from Saugatuck City. The Tri-Communities are also served by Zeeland Community Hospital, 14 miles from Saugatuck and South Haven Community Hospital to the south that is 18.6 miles away.

SCHOOLS

Three school districts serve the Tri-Community area; Saugatuck, Fennville, and Hamilton school districts. (See Map 6-3). Approximately half of Saugatuck Township, and all of the City of the Village of Douglas and Saugatuck, are served by the Saugatuck district, with the southern portion of the Township being served mostly by the Fennville district and the extreme northeast portion of the Township served by the Hamilton district.

The Saugatuck school system operates facilities in two locations. Douglas Elementary School accommodates 3-yr. old and 4-yr. old pre-school, and grades K through 5. Saugatuck Middle School accommodates grades 6 through 8 and Saugatuck High School accommodates grades 9 through 12. Total enrollment is approximately 886 students. There are no expansion plans. The Fennville system has a lower and upper elementary schools (PK-5), a middle school (grades 6-7) and a high school (8-12), with a total enrollment in 2013 of approximately 1,368 students. Total enrollment in the Hamilton district is 1,838. See an enrollment below in Table 6-2.

Table 6-2
SCHOOL DISTRICT ENROLLMENT

2003

School District	Elementary	Middle School	High School	Total
Fennville	328	360	399	1087
Hamilton	466	594	828	1888
Saugatuck	351	170	239	760

2008

School District	Elementary	Middle School	High School	Total
Fennville	617	323	472	1412
Hamilton	463	606	772	1841
Saugatuck	397	193	261	851

2013

School District	Elementary	Middle School	High School	Total
Fennville	629	323	416	1,368
Hamilton	424	608	806	1,838
Saugatuck	389	216	281	886

Source: <https://www.mischooldata.org/DistrictSchoolProfiles/StudentInformation/StudentCounts/StudentCount.aspx>

Photo 6-6
Saugatuck Middle/High School



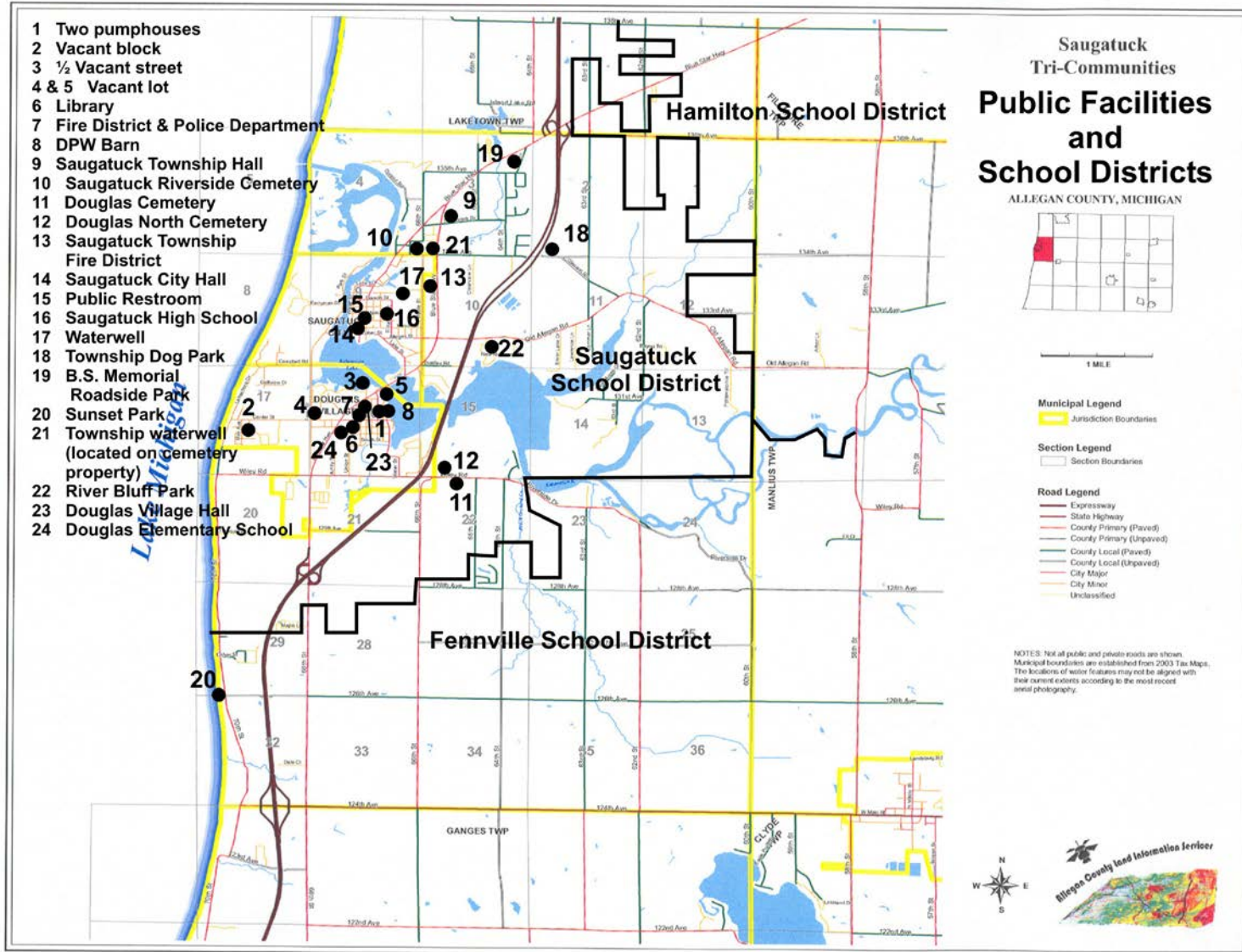
Source: Aaron Sheridan

Photo 6-6
Douglas Elementary School



Source: Aaron Sheridan

Map 6-5
 Tri-Community Public Facilities and School Districts



Source: Allegan County GIS Department and Planning & Zoning Center, Inc.

SOLID WASTE DISPOSAL

PA 641 of 1978 requires that every county prepare a solid waste management plan. The plan must be approved by the County Planning Committee, the County Board of Commissioners and by at least 2/3 of the municipalities in the county.

Allegan County Solid Waste Plan dates from 1997 (and was approved by the DEQ in 2000) and covers a ten year planning period. An update process was to begin in 2002 but is on hold upon direction of the state. The current Plan remains in force.

Characteristics of the solid waste stream include:

- County generates an estimated 241 tons per day (TPD) of municipal solid waste (MSW), a category which includes residential, commercial, and some industrial wastes, but does not include construction and demolition debris or industrial process wastes (such as foundry sand, sewage sludge, or paper sludge).
- Based on a 2002 County population estimate of 109,336, this calculates to about 4.4 pounds/person/day.
- Of the MSW, about 55% is estimated to be residential (133TPD, 2.43lbs/person/day) and 45% commercial (108 TPD, 1.97lbs/person/day).
- Adding the C & D and Industrial Process waste brings the estimated generation to 326 TPD, or 5.96 lbs/person/day.
- It is estimated that about 32% of this total generation, 105 TPD, is being recycled or composted, leaving a landfill total of 221 TPD. (MDEQ's annual landfill receipt reports consistently indicate much less Allegan County waste, the equivalent of 135 TPD in 2003. Resource Recovery does not believe it is that high as some of the waste might be co-collected with another county's and counted in its totals).
- In terms of residential recycling, Saugatuck City collected 48 tons curbside and 334 tons drop-off in 2003. Saugatuck Township collected 111 tons curbside.
- Most of Allegan County's waste goes to landfills in Ottawa County and a lesser amount to Kent County. Some even goes to Watervliet in Berrien County and also to St. Joseph County. At present, there is sufficient capacity within the region and Resource Recover does not foresee a need to site any new facilities in the near future. Kent County has been purchasing land in Dorr Township with a long term intention (10-12 years) of expanding the South Kent Landfill, which sits right up against the county line into Allegan.

Source: Allegan County Solid Waste Plan

The goals and objectives of the plan focus on reducing the waste stream through separation and recycling, using private haulers for waste collection, recovering energy from the solid waste stream and providing the public with opportunities to develop solutions for solid waste disposal problems.

Each governmental unit maintains its own recycling and each jurisdiction maintains a curbside pickup policy on a regularly scheduled bases. In 2009, the City of Saugatuck passed a Resolution to use a single waste hauler, followed by the City of the Village of Douglas in 2012. It established a contract with private contractor to handle both recycling

and refuse collection for all properties in the two cities. The Township participates in the Allegan County Resource Recovery program that offers disposal of hazardous waste throughout Allegan County and bi-monthly curbside recycling services provided by private contractor that is coordinated by the Allegan County Health Department.

PUBLIC FACILITIES

The City, Village and Township own a number of buildings and other facilities. Those not related to recreation are listed below in Table 6-3 and are shown on Map 6-5. Recreation facilities are discussed in Chapter 7.

Photo 6-8
Saugatuck Public Works Department Building



Photo 6-9
Saugatuck Township Hall



Source: Aaron Sheridan

Table 6-3
Tri-Community Public Facilities

Name	Location	Use
Saugatuck Township		
Township Hall	3461 Blue Star Memorial Hwy.	Twp offices, State Police
Saugatuck Riverside Cemetery	135 th Ave & Blue Star	Burial – Monument Park
Douglas Cemetery including North Annex.	Riverside Road east of US I-196 overpass	Burial- Monument Park
Fire Station (Tri-Community District)	3342 Blue Star Hwy.	Fire & First Responders
Kalamazoo Lake Sewer & Water Authority (Tri-Community District)	6449 Old Allegan Rd.	Public Works & Admin Office – Sewer Treatment
City of Saugatuck		
City Hall	102 Butler	City Offices
Saugatuck Post Office	434 Butler	Postal Service
Middle and High School	401 Elizabeth Street	School
Saugatuck DPW Maintenance Bldg.	3338 Blue Star Hwy.	Public works
Saugatuck DPW sand & salt storage	3338 Blue Star Hwy.	Public Works
Pump house #1	Maple St.	Water
Pump house #2	Maple St.	Water
City of the Village of Douglas		
City Hall	86 W. Center Street	City Offices
Douglas Elementary School	261 Randolph Street	School
School District Offices	201 Randolph Street	School Administration
Douglas Post Office	70 Center Street	Postal Service
Library (Saugatuck-Douglas)	Mixer & Center Sts.	Library, Offices
Douglas DPW Maintenance Bldg.	Water & Center Sts.	Public Works
Two pump houses & pumps	Center Street end	Well housing
1/2 vacant street ends on Kalamazoo River & Lake	Gerber, South, Fermont, Randolph, Spencer	None/developmental

Chapter 7 RECREATION AND OPEN SPACE

INTRODUCTION

This chapter discusses recreation facilities and programs and open space in the Tri-Communities. This includes the administration of recreation programs, existing resources and planned-for parks, bike paths and other recreation needs. It also discusses open space as a recreational and amenity asset of the communities.

Parks, recreation, and open space are essential to the quality of life of area residents, and are an important component of the local tourist economy. They enhance property values, as well as physical and psychological well-being.

Parks and open space define the character of the Tri-Communities, create the scenic atmosphere which stimulates tourism, and provide the basis for popular local leisure activities.

Photo 7-1

The Tri-Communities are an Active Recreation Destination



Source: Felicia Fairchild, Saugatuck Douglas
Convention and Visitors Bureau

Recreation needs are regional in nature and plans must view local recreational offerings as part of a regional recreational system. Local governments, schools, private entrepreneurs, the County, and the State each have a role in serving local and regional recreational needs.

The Tri-Communities have a variety of types of public and private recreation resources, including small parks, nature areas, golf courses, waterfronts, beaches and waters for boating and fishing. There is also a variety of open spaces that includes very small parks, larger parks, cemeteries, undeveloped beach areas, undeveloped farmlands, floodplains and woodlands. Some of these open spaces are publicly owned but many are in private ownership.

ADMINISTRATIVE STRUCTURE

The City of Saugatuck's parks are maintained by the City through its Department of Public Works. Park planning is done by a committee of three City Council members, who are aided by the City Manager and overseen by the full Council.

Douglas parks are maintained by the City Department of Public Works under the Council's Parks and Buildings Committee, which reports to the City Council.

The Township formed a Township Parks Commission in November 1970 that consist of 5 elected members charged with provision of Township parks. The Commission gives direction to the Township Manager who engages licensed contractors for park maintenance and capital improvement.

The Saugatuck Public Schools maintain athletic and recreational facilities and the responsibility for planning for these facilities rests with the Athletic Director, Physical Education teachers, Athletic Booster Club and the school board.

The most recent Parks & Recreation Plan was developed in 2014 by a joint committee of representatives from the Saugatuck School District, Saugatuck, the City of the Village of Douglas, and Saugatuck Township. The 5 Year Joint Parks and Recreation Plan of 2014 was based in part from written and online surveys of the Tri-Community and met all requirements of the State of Michigan to be accepted by the Parks and Recreation Division of the MDNR. It was adopted by each participating entity in 2014 and is the most recent successor to numerous 5 Year Joint Parks and Recreation Plans that involved the Cities, Township and Saugatuck School District.

Allegan County prepares and periodically updates a countywide parks and recreation plan. County parks are administered by a ten-member County Parks and Recreation Commission whose members include the Chairs of the County Road Commission, the County Planning Commission, the County Drain Commissioner, two County Commissioners, and five members appointed by the County Board of Commissioners. The Commission meets on the first Monday of each month. It sometimes provides financial assistance for local recreational efforts which advance the County Recreation Plan.

AREAWIDE RECREATIONAL OPPORTUNITIES

Recreation can be separated into four main categories: physical, social, cognitive, and environmentally related recreation. The first category focuses on sports and various physical activities. Social recreation looks at social interaction. Cognitive recreation deals with cultural, educational, creative, and aesthetic activities. Environmentally related recreation requires the natural environment as the setting or focus for activity. Each of these categories in some way relates to the others.

Photo 7-2
Soccer Recreation Program



Source: Scott Kierzek, Community Recreation Director

Photo 7-3
Summer Swimming Program



Source: Scott Kierzek, Community Recreation Director

Table 7-1
Summer Recreation Programs

Saugatuck Recreation Programs

- Soccer
- Youth Baseball/Softball
- Youth Basketball
- Adult Basketball
- Youth Football
- Punt, Pass, Kick
- Volleyball
- Sanchin-Ryu (martial arts)
- Swimming
- Adult Water Aerobics
- Fun Fitness

- First Aid
- CPR
- Infant/Child CPR
- Hunter's Safety
- Babysitting

Community Events

- Mt. Baldhead Challenge
- Las Vegas Night
- Beery Field Ice Rink
- Ski Club

School District/Community Recreation

Saugatuck Public Schools offers a community recreation program through a dedicated millage supported by the electorate. The purpose of the program is to provide a variety of recreational activities, leagues, classes and events for the students and community members served by the district.

The Board of Education and Administration supervises the community recreation program and established an advisory board to review programs offered and other matters of direct concern to the program. The advisory board is composed of representatives of the City of Saugatuck, Saugatuck Township, the City of the Village of Douglas, and Laketown Township in addition to a school administrator and community at-large members.

Photo 7-4

Vintage Baseball League Team—Douglas Dutchers



Source: Saugatuck Douglas Recreation Commission

The area hosts a team that participates in the Vintage Base Ball League. The Douglas Dutchers plays home games at Beery Field. The team was established in 2003 and captured the Silas K. Pierce Cup in tournament play in Grand Rapids. The team plays opponents across Michigan and out-of-state.

Social Recreation

A variety of local clubs and activities provide social recreation for people of all ages. Festivals, community education programs, and intramural sports provide an opportunity to socialize.

Cognitive Recreation

The Tri-communities are rich in cognitive recreational pursuits. Festivals, art workshops, local theater, historic districts, summer day camp, and community education programs provide cultural, educational, and aesthetic enjoyment. The Saugatuck Women's Club, the Oxbow, Douglas Garden Club, and the Douglas Art Club are among the local clubs which organize cultural activities.

The following facilities provide intellectual /cultural opportunities:

Intellectual/Cultural Recreational Facilities

Saugatuck Center for the Arts, Saugatuck

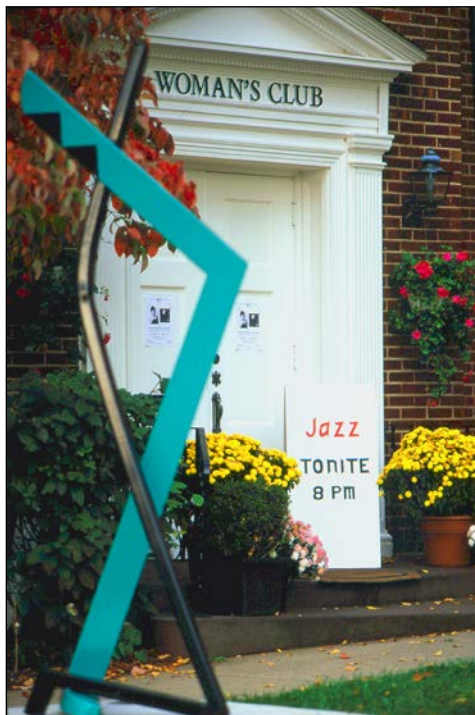
Saugatuck Women's Club, Saugatuck

Saugatuck/Douglas District Library, Douglas

Saugatuck – Douglas Historical Society Museum, Saugatuck

Photo 7-5

Saugatuck Women's Club



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Environmentally Related Recreation

Area lakes, the Kalamazoo River, and state and local parks provide area citizens with unique outdoor recreation opportunities. They provide a location for a variety of outdoor activities including boating, fishing, swimming, nature study, camping, hiking, cross country skiing, and nature walks. These areas also serve the cognitive needs of area citizens and tourists by their scenic beauty and relaxing affect. In fact, the most valued attribute of area water bodies and open space to area citizens, as identified in the 2004 Public Opinion Survey, is not physical recreation, but the scenic view they provide.

RECREATION INVENTORY

Map 7-1 identifies parks and recreational facilities in the Tri-Communities. Table 7-2 contains an inventory of outdoor recreation facilities in the Tri-Communities. There are also two privately owned eighteen hole golf courses in the area.

- Clearbrook Golf Club & Restaurant, Saugatuck Township
- The Ravines, Saugatuck Township

Photo 7-6a

Ravines Golf Course, Saugatuck Township



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Photo 7-6b

Clearbrook Golf Course, Saugatuck Township



Source: Clearbrook Golf Club

**Table 7-2
Inventory of Outdoor Recreation Facilities**

	Acreage	Play Scope	Ball Diamond	Soccer Field	Tennis Court	Football Field	Skating	Basketball Court	Volleyball	Swimming Area	Boat Launch	Parking Area	Pathway	Picnic Area/Shelter	Water Access	Nature Area	Bathrooms	Other
Mini-Parks																		
Douglas Beach	1.5									X		X		X		X		
Frank Wicks Park	0.5													X		X		X
Willow Park	0.2													X	X			
Cook Park	1													X				X
Coghlin Park	0.5													X	X			
Mize Rose Garden	<1																	X
Sundown Park	0.4	X										X		X				
Veteran's Walk Park	<1																	X
Alice McClay Park	1															X		
Neighborhood Park																		
Harold Beery Field	2.7	X	X				X	X				X		X			X	X
Wade's Bayou Memorial Park	1.8											X		X	X			
Saugatuck Village Square	2.5	X			X		X	X									X	
Community Park																		
Howard C. Schultz Park	20	X	X	X							X	X		X	X	X	X	
Oval Beach and Saugatuck Natural Area	50									X		X	X	X	X	X	X	
River Bluff Park	27	X										X	X	X	X	X		
Tails & Trails Dog Park	5											X	X	X				X

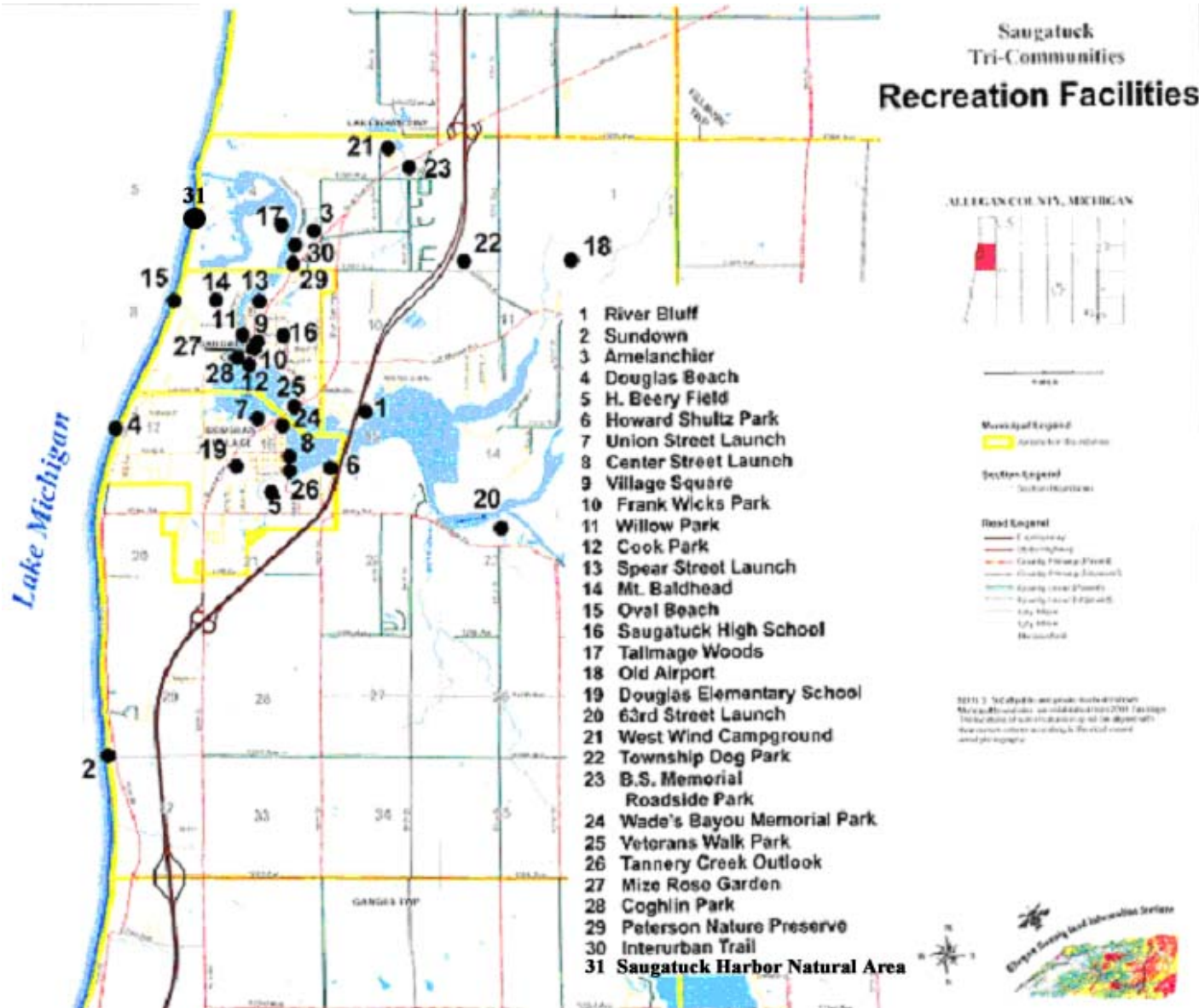
Large Urban Park																		
Mt. Baldhead Park	100										X	X	X	X	X	X		X
	Acreage	Play Scope	Ball Diamond	Soccer Field	Tennis Court	Football Field	Skating	Basketball Court	Volleyball	Swimming Area	Boat Launch	Parking Area	Pathway	Picnic Area/Sheiler	Water Access	Nature Area	Bathrooms	Other
Special Use																		
Union Street Launching Site	Road R-O-W										X							
Spear St. Boat Ramp	Road R-O-W										X							
63 rd Street Public Boat Access	<1										X	X			X		X	
Blue Star Memorial Highway Park	0.5											X		X				
Special Use/Natural Resources Area																		
Tallmadge Woods	100											X				X		X
Natural Resource Areas																		
Tannery Creek Outlook	<1															X		
Old Saugatuck Airport	154															X		
Peterson Preserve	9															X		
Amalanchier Park	4															X		

134 th Street property surrounding dog park	34.5											X	X			X		
School-Park																		
Douglas Elementary School	8.6	X	X					X				X						X
Saugatuck High School	12.7		X	X	X	X		X	X			X					X	X
Park Trail-Type III																		
The Interurban Trail	0.35												X					
Blue Star Trail	1.35																	
Beach to Bayou Trail	1.0																	

Source: Saugatuck-Douglas Area 5 Year Parks & Recreation Plan 2014-2019

Map 7-1
Tri-Community Recreation Facilities

Saugatuck Tri-Communities Recreation Facilities



Source: Allegan County GIS Department and Planning & Zoning Center, Inc.

This is much higher than typical for such a small population (the standard is 1 golf course per 10,000 people), and reflects the impact of tourism on local recreational facilities. A discussion of planned improvements for Tri-Community parks and recreation facilities is shown in Table 7-3. Table 7-4 includes a capital improvements schedule of planned park and open space acquisitions and improvements.

Table 7-3
Planned Improvements in Tri-Community Parks

Community/Entity	Park/Property	Improvement/Acquisition
Tri-Community Area		
	Dredging the Kalamazoo River	Lake Kalamazoo and Lake Michigan access from Marina slips and boat launches
	Area Parks	Brochure to provide residents and tourists information on park locations and facilities
	Winter Recreation	Ice rink, sledding hills, toboggan area
	Historical Museum	Building repairs, grounds improvements and exhibit development
City of Saugatuck		
	Mt. Baldhead	Maintenance of picnic shelter, replacement of restrooms, paving the gravel parking lot
	Oval Beach	Develop walking/biking path from Park Street to beach, construct additional shelter/pavilion on the beach and improve existing ticket booth/entrance gate
	Wicks Park	Maintenance to Gazebo
	Cook Park	Add more picnic tables
	Coghlin Park	Family-centered green space in central city
	Bicycle/Walking Path	Develop walking/bike path from downtown to the Peterson Nature Preserve, through preserve, on Interurban Trail to North Street, to Maple Street and back to downtown.
	Peterson Nature Preserve	10-year Development Plan
Saugatuck Township		
	Recreation Programs	Expand existing programs
	Bike/Hiking Trails	Extend non-motorized trails
	River Bluff Park	Remodel boat landing dock, bridges and benches. Construct river overview and rest rooms.
	Tails n Trails Dog Park	Expand trail system, lighting and pave parking lot.
	Sundown Park	Pave parking area.
	Blue Star Memorial Park	Replace grills, add paving and history station.
	Amalanchier Park	Install Trail system, picnic tables, grills and signage. Add nature/history station along trail.
Saugatuck Schools		
	Schools	Construct outdoor track, outdoor basketball courts, tennis courts, lights for athletic field, cross-country course

Table continued on next page.

Table 7-3 (Continued)
Planned Improvements in Tri-Community Parks

Community/Entity	Park/Property	Improvement/Acquisition
City of the Village of Douglas		
	Douglas Beach	Install drinking fountain and add observation deck.
	Schultz Park	Upgrade tennis court and replace playground equipment. Expand parking lot and add rest rooms.
	Recreational Maintenance Building	
	Wade's Bayou Memorial Park	Construct boardwalk. Remove existing garage/storage facility, construct picnic shelter with picnic tables and restrooms.
	Union Street Launch Ramp	Improve/rebuild existing launch ramp. Install lighting. Add barrier free picnic tables and benches.
	Harold Beery Field	Maintenance
	Entire Village	Bike Paths and Center Street trail to beach.

Source: Saugatuck-Douglas Area 5 Year Parks & Recreation Plan 2014-2019

Table 7-4
Planned Recreation Projects and Acquisitions

Fiscal Year	Planned Improvements	Estimated Cost	Funding Sources
City of Saugatuck			
2013-14	Mt. Baldhead Improvements	\$265,084	City/MDNR
2013-14	Oval Beach Park Improvements	\$150,000	City/MDNR
2013-14	Wicks Park Improvements	\$100,000	City
Ongoing	Citywide Bike/Walking Path	To be determined	City/MDNR/MDOT
Saugatuck Schools			
2013-14	Outdoor football fields, soccer fields, baseball fields, parking and outdoor restrooms.	\$500,000	School/MDNR
Saugatuck Township			
2013-15	Non-motorized trail extension	\$1,500.00	Township MDOT-CMAQ grant
2014-2015	River Bluff Park	\$45,000-105,000	Township/ DNR Grant, MDEQ Coastal Grant
2014-2015	Tails N Trails Dog Park	\$478,000-\$525,000	Township/MDNR Parks Millage, Donations
2015-2016	Sundown Park	\$11,000-13,150	Township/MDNR, Parks Millage, MDEQ Coastal Grant
2015-2016	Blue Star Memorial Hwy Park	\$15,000-21,000	Township/MDNR, Parks Millage, Donations
2016-2017	Amalanchier Park	\$14,160-22,600	Township/MDNR, Parks Millage, Donations
2017-2018	63 rd St. MDNR Boat Launch	\$20 – 30 million	DNR Grant, Special Assessment District
City of the Village of Douglas			
2014-15	Wage's Bayou Memorial Park	\$400,000	City/MDNR
2014-15	Non-Motorized Trails	\$500,000	City/MDNR
2016-17	Douglas Beach	\$100,000	City/MDNR
2017-18	Schultz Park	\$300,000	City/MDNR
2017-18	Union Street Launch Ramp	\$1,000,000	City/MDNR

Source: Source: Saugatuck-Douglas Area 5 Year Parks & Recreation Plan 2014-2019

Note: Some costs are estimates and not all costs have been calculated.

It should be noted that nearly all projects in Table 7-4 are listed as at least partially dependent on grants from the Michigan Department of Natural Resources, (Michigan Natural Resources Trust Fund). It may be helpful if other sources for some projects can be found as the Trust Fund is a competitive program and the Tri-Communities may only get a single project funded in a given year or longer period.

RECREATIONAL NEEDS AND USE

The 2004 Public Opinion Survey highlighted those recreational facilities that residents feel are adequate or inadequate in the Tri-community area. Table 7-5 lists these.

Table 7-5
Community Opinion on Recreational Facilities, 2004

Recreation Facility	% Response Adequate	% Neither Adequate nor Inadequate	% Response Inadequate	% Response Not Sure
Boat launching facilities	50.3%	5.7%	20.8%	23.1%
Transient boat docks	29.7%	9.9%	28.2%	32.2%
Boat slips (rental)	40.5%	11%	14.7%	33.8%
Boat slips (condo)	40.2%	13.4%	7%	39.4%
Marinas	50.4%	9.4%	13%	27.1%
Swimming beaches	75.4%	7.3%	10.6%	6.7%
Boat service	40.9%	11.9%	11.6%	35.6%
Pump-out facility	25.9%	13.2%	11.7%	49.2%
Fish cleaning stations	18.6%	15.2%	14.9%	51.2%
Campgrounds with public access	20.7%	15.3%	31.1%	32.9%
Parks	58.6%	12.1%	19.8%	9.4%
Public restrooms	41.7%	16.7%	32.9%	8.9%
Designated boat mooring sites	19.2%	16.7%	22.2%	41.8%
Designated no wake zones	41.4%	12.2%	15.4%	31.1%
Other public access	21.6%	18%	15%	45.5%

Non-Motorized Trails and Bike Paths

Residents placed highest priority on additional bike paths, cross country skiing routes, and hiking trails. These needs are currently partially served by non-motorized trails in the Oval Beach/Mt. Baldhead area. The 2014 Joint Parks and Recreation identified bicycle trails as a high priority, prepared a map of potential locations and listed them in a schedule of capital improvements to achieve this objective. These improvements have not been implemented to date. The 2004 Tri-Community Opinion Survey also identified expanded bike paths as highly desirable, and about 61% of respondents supported bike lanes or paths even if it meant paying for it with higher taxes. Those who attended a Town Meeting in May of 2004 were asked to identify important destinations they would like included in bike path planning. A wide variety of destinations were identified, especially the Lake Michigan beaches, the downtowns of Saugatuck and the City of the Village of Douglas, Laketown Township and the City of Holland. Residents frequently commented that they didn't want bike lanes added to existing roads if it meant the removal of trees.

In 2008, the Saugatuck Township Park and Recreation Commission prepared a map of potential and/or desired bike path locations. Those routes are the same as those in the 1989 Comprehensive Plan, and are shown in black dashed lines on Map 7-2. More recent public input suggests potential additional routes, shown in red on Map 7-2.

The regional bike path system would connect with Saugatuck's chain ferry to afford bicyclists east/west access. This connection runs down Holland Street and across Francis Street to the waterfront and will be served by city streets, without the need for additional right-of-way. At this juncture, bicyclists may ride the chain ferry to Saugatuck's

eastern border. Once on Saugatuck's eastern side, bicyclists could follow Saugatuck's proposed bike path system down through the City of the Village of Douglas and south out of the Township. Bike path right-of-way would also extend north to Goshorn Lake along Washington Road, thereby connecting with Laketown Township. Another future extension could extend the system east along Old Allegan Road into Manlius Township. This is a scenic route, although somewhat hilly.

The Blue Star Trail is a future bicycle trail extending from South Haven to Holland. Bicyclists wishing to pass through Saugatuck and on south through the City of the Village of Douglas would need additional right-of-way from Lake Street to the bridge, thereby connecting with the City of the Village of Douglas bike path network. The City of the Village of Douglas would extend its bike path south on Blue Star Highway to connect with the Township system, as well as along Center Street to the Douglas Beach. Map 7-2 shows this proposed regional bike path network.

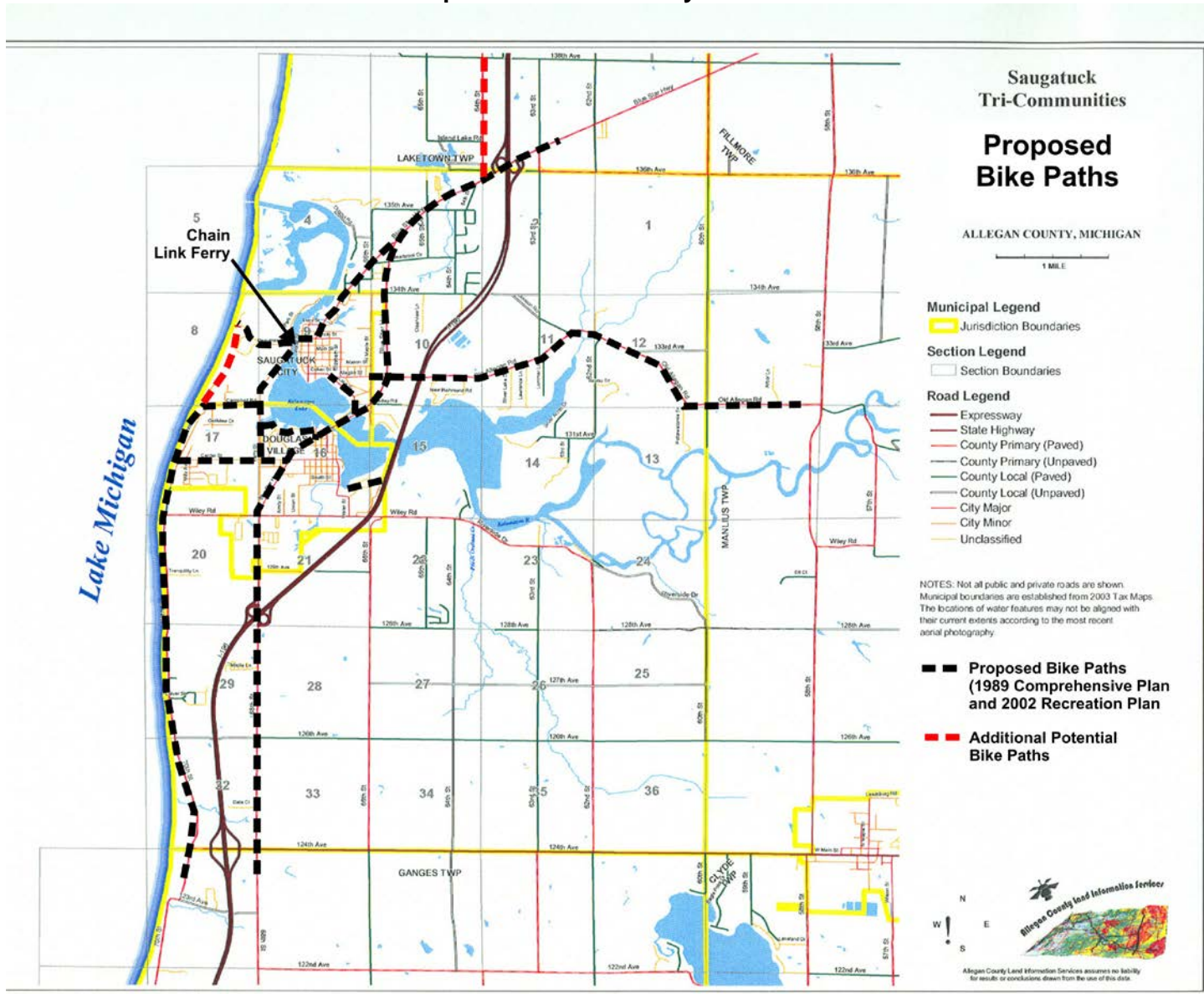
The 2004 community opinion survey results indicate that residents would support (60.5% support or strongly support, 19.8% neither support nor oppose and 16.4% oppose or strongly oppose) bike lanes if it meant an increase in general property taxes. A network of trails and bike paths would improve quality of life for existing residents and serve as an attraction to visitors as well. With growing state and national concern over obesity, a network of trails and bike paths would provide more exercise opportunities for citizens close to home. The more variety and opportunity for trails, the greater the likelihood citizens will use them regularly.

Photo 7-7
Interurban Trail



Source: Aaron Sheridan

Map 7-2
Proposed Tri-Community Bike Paths



Waterfront Open Space

Viewing the water has long been among the most popular waterfront activities. Other waterfront activities include boating, swimming, fishing and nature study. Swimming is popular on Lake Michigan, boating on Kalamazoo Lake and River, Lake Michigan and nature study primarily on the wetlands areas of Kalamazoo River.

In order for viewing to take place, the public needs to have access to the water's edge. Views of the water are available from Blue Star Highway, local streets along Kalamazoo Lake, several parks in downtown Saugatuck, from restaurants along the Kalamazoo River in downtown Saugatuck and from selected other sites. Schultz Park in the City of the Village of Douglas and Sundown Park in Saugatuck Township also provide visual access to the water. However, viewing platforms may be a valuable addition along some of the extensive Kalamazoo River wetlands as there are heavily used by migratory waterfowl, are rich with diverse wildlife and are close to Saugatuck and the City of the Village of Douglas citizens.

Photo 7-8

Restaurants are Among Water Viewing Sites



Source: Felicia Fairchild, Saugatuck Douglas
Convention and Visitors Bureau

Senior Citizens Center

Senior citizens in the area have expressed a desire for a senior citizens center to serve the social and recreational needs of the area's elderly population. The 2004 Survey results reflect partial support for a senior center. Thirty-five percent of Tri-Community

respondents felt that a senior center deserved high priority and another thirty-six percent neither supported nor opposed it.

RECREATION AND LOCAL SPENDING

According to the 2004 community opinion survey, following was the response to the question of whether the respondent would support the additional recreation-related activities even if it meant an increase in general property taxes. See Table 7-6.

Table 7-6
Support for Recreation-Related Services if Increased Property Taxes Required

Services	% Support Additional Property Taxes	% Oppose Additional Property Taxes	Neither Support nor Oppose	% Don't Know or No Opinion
Bike lanes/pathways	60.5%	10.5%	19.8%	3.2%
Community Recreation Center	12.9%	30.2%	32.3%	4.7%
Senior Citizen Center	35.1%	22.7%	36.3%	5.9%
Community Pool	29.1%	43.8%	22.4%	4.8%
Parks and Recreation	50.9%	17.2%	27.8%	4%
Better Water Quality	62.5%	10.5%	22.1%	4.9%

Source: Tri-Community Survey, 2004

The greatest support among recreation-related topics was for better water quality with 62.5 %, bike lanes/pathways with 60.5% support and parks and recreation at 50.9%. When citizens express a willingness to pay higher taxes for a service that is very significant. However, specific proposals would need to be prepared with broad community support for the details before anyone could reasonably count on such support for higher taxes.

OPEN SPACE PROTECTION

Recreation is important to the Tri-Communities and the visual experience of the community is tied to the recreational experience. Residents like to live in the Tri-Communities, in part, because it is a uniquely attractive location. Tourists visit and spend money in the Tri-Communities based in part on the visual experience. Natural features and open spaces are important components of the Tri-Communities, contrasting with the concentrated, developed areas of the City of Saugatuck and the City of the Village of Douglas. The compact, strong identities of the City and Village are enhanced when natural, open spaces surround the two communities. Water is one of the natural features surrounding the City and Village and helping to give them form and identity. Wetlands, woodlands, farms and parks are other existing natural features that currently contribute to natural open space.

The extent to which open space continues to be a part of the Tri-Communities in the future depends on several factors. These include:

- The degree to which views of the water remain. If waterfront development effectively walls off views of the water from surrounding streets, a very important open space attribute will be lost and the sense of naturalness diminished. The acquisition and

use of a portion of the waterfront for public use and access can help preserve the waterfront as a community open space. Regulations that require new development and redevelopment to provide some space on waterfront sites can also serve to help maintain the water as a significant natural feature of the community.

- The conversion of undeveloped land to a developed use. This appears to be happening somewhat rapidly in portions of Saugatuck Township, primarily for residential development.
- Protection of sensitive lands, such as wetlands, dunes and steep slopes from development. Sensitive lands can be protected by purchase, purchase of easements or development rights, transfer of development rights, donation and regulations.
- Protection from development of the most visible open spaces. The most visible open spaces tend to be those along roadways and on ridges. These can also be protected by scenic easements and other purchase, transfer or donation programs, design guidelines and regulations.

Photo 7-9

Protected Open Space Adds Value to the Community



Source: Aaron Sheridan

Many communities are organizing open spaces, natural features and recreational facilities into a greenspace or green infrastructure system.

Definitions

Greenspace – Undeveloped or minimally developed land such as parks, farmlands, wetlands, woodlots, natural areas, plant and wildlife habitat, trails, river or recreational corridors, community gardens, pocket parks, vegetation buffers, tree-lined parkways and similar areas with natural or planted vegetation.

Greenway – (1) a linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridge line, or over land along a railroad right-of-way converted to recreational use, a canal, a scenic road or other route; (2) any natural or landscaped course for pedestrian or bicycle passage; (3) an open space connector linking parks, natural reserves, cultural features, or historic sites with each other and with

populated areas; and (4) locally, certain strip or linear parks designated as a parkway or greenbelt (Charles Little, author of **Greenways for America**, 1990).

Regional greenways connect communities and major habitat areas.

Local greenways provide significant connections within a community.

Neighborhood greenways provide minor connections and tie people to the larger system.

Without trails, greenways are buffer strips serving as visual separators and wildlife corridors.

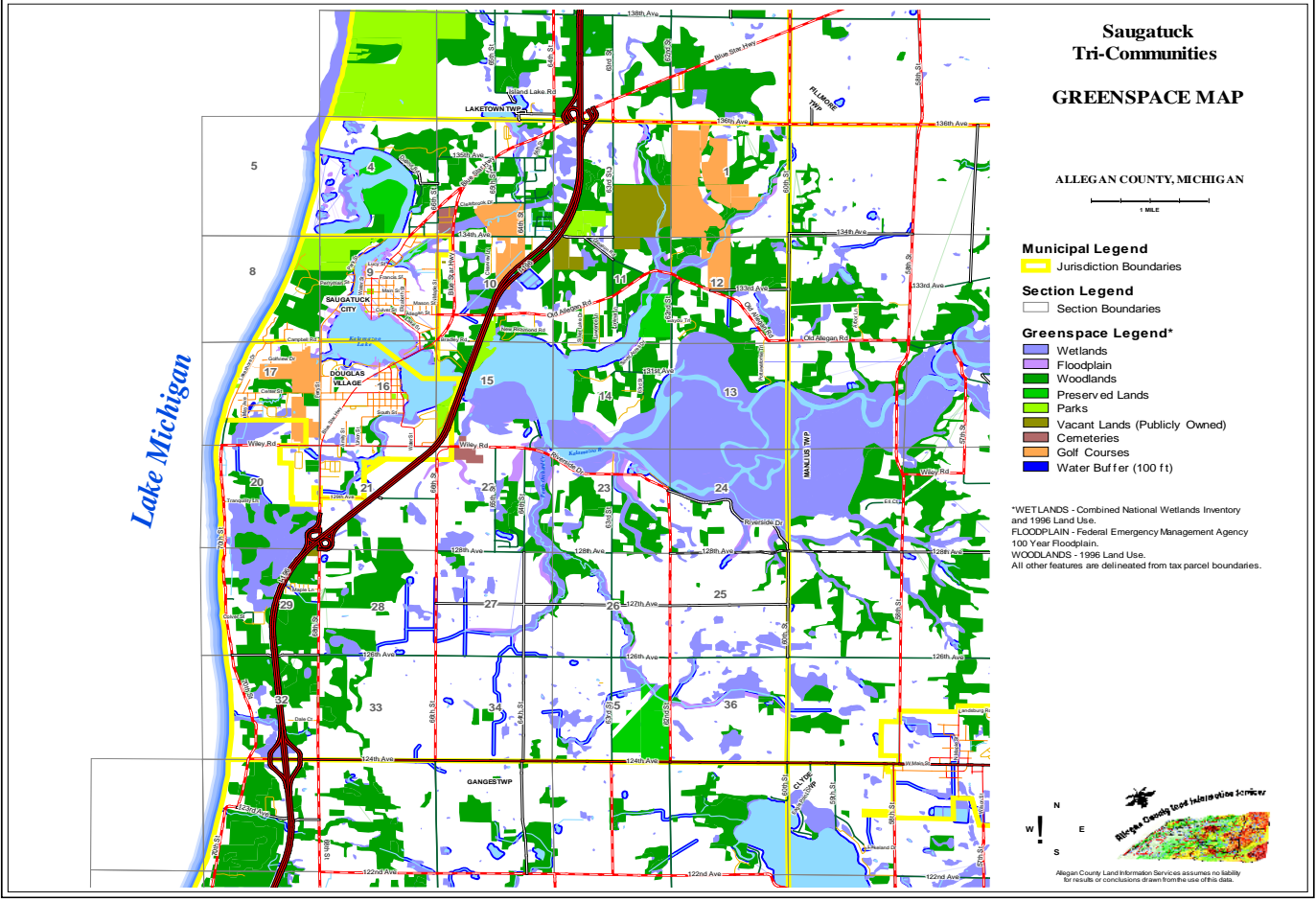
Green Infrastructure – "Our nation's natural life support system, an interconnected network of natural areas, conservation lands, and working landscapes that support native species, maintain natural ecological processes, sustain air and natural resources, and contribute to the health and quality of life for America's communities and people.*** Green infrastructure is an interconnected network of conserved natural areas and features (including wetlands, woodlands, waterways, and wildlife habitat), public and private conservation lands (including nature preserves, landscape linkages, wildlife corridors, and wilderness areas), private working lands of conservation value (including forests and farms) and other protected open spaces (including parks). It is green space that serves multiple purposes and is strategically planned and managed at the local, regional and state levels." (Mark Benedict, The Conservation Fund). [In contrast to gray infrastructure of roads, utility lines, communications and water systems.] Also see "Greenspace".

Two advantages of the greenspace or green infrastructure approach are:

- It raises the consciousness of the residents regarding natural resources and the place of those resources, recreational facilities and open spaces in their lives and the fabric of the community. The result of that raised consciousness can be a greater commitment to the implementation and management of a greenspace system.
- A greenspace system creates valuable connections or links within the community. Some of these connections will serve the recreational (and occasionally the transportation) needs of the community. Linked open spaces can create a visual web of nature that enhances the appearance of the community and improves quality of life. Linked natural areas serve as wildlife corridors to help sustain a diverse population of birds and other animals. Protected open space along waterways helps protect water quality.

Map 7-3 shows the location of potential elements of a greenspace system in the Tri-Communities. Protection of the elements shown on this map can help create a greenspace system. Identifying gaps in the greenspace system can provide information to local officials and property owners regarding how to help complete green connections.

Map 7-3 Tri-Community Greenspace Elements



Chapter 8 WATERFRONT

INTRODUCTION

This chapter discusses the Kalamazoo River, Kalamazoo Lake and Saugatuck Harbor. It covers use of these water bodies, ecosystems associated with the River and Lake, water quantity and quality and opinions about them.

Saugatuck was the first settlement in Allegan County. Its natural protected harbor along the Kalamazoo River and proximity to Lake Michigan gave it a ready means of water transport, essential to the commerce of the day. Throughout its history, land use activities along the Lake Michigan shoreline and the riverfront have continued to dominate the economic life of the Tri-Community area. Lumbering, boat building, basket making, fruit transport, and even large Great Lakes passenger boats have, at different times, relied upon the River connection. Tourists have always been attracted to the area, but tourism is now the number one economic activity. Today's waterfront activities are dominated by tourist and pleasure craft needs, especially sailboats, powerboats, charter fishing boats and other tourist boats. Consequently, how the waterfront is used will be of crucial importance to the future of the Tri-Community area.

Photo 8-1

Kayakers About to Enjoy Kalamazoo Lake



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

The primary issues concerning proper future use of the waterfront involve competition between economic development and environmental protection. Waterfront lands represent the highest value lands in the Tri-Community area, and local officials are therefore concerned about the potential tax base associated with use of waterfront lands. In order to finance the service needs of local residents, the Tri-communities must balance taxable and nontaxable land uses. This presents a dilemma. Although waterfront lands have high revenue generating potential, a major attraction of both the Lake Michigan and Kalamazoo River waterfronts is their scenic, natural shorelines composed of forested sand dunes and

large wetland areas. Should these natural areas be greatly damaged or destroyed through inappropriate development, then the "goose that laid the golden egg" will be dead.

It is essential that the natural beauty of the waterfront be maintained along the Lake Michigan shoreline, the Kalamazoo River from the channel to Saugatuck, and from the Blue Star Highway Bridge inland. Limited additional development along the waterfront on Lake Kalamazoo and the City of the Village of Douglas side of the bayou east of Blue Star Highway may be both desirable and necessary. However, such development must be undertaken carefully to maintain the delicate balance between economic development and environmental protection.

Photo 8-2
Blue Star Highway Bridge



Source: Aaron Sheridan

It is both necessary and possible to manage the waterfront for a variety of purposes. Yet it is always difficult to manage for multiple uses. Some individuals value land management to retain the necessary habitat for birds, fish and wildlife. Others feel it should be managed to maximize surface water use, or for intensive waterfront dependent activities like ship building or power generation. Based on some of the technical data presented below, existing use information, citizen opinions, and the goals and objectives presented at the beginning of this Plan, the waterfront in the Tri-Community area can, and should, be managed to accommodate a wide range of land uses and activities.

This Plan seeks to define a balance between competing uses. It places protection of the natural environment as first and foremost in making future land use decisions along the Lake Michigan and Kalamazoo River waterfronts. The ultimate goal is to minimize disruption of the natural environment so that new development and redevelopment is in harmony with the environment, rather than in conflict with it. Alteration of existing natural features should be very limited, and with mitigation to provide the same values and functions nearby.

Watersheds of the Kalamazoo River Basin

The Kalamazoo River extends from south of Homer in Hillsdale and Jackson Counties to its outlet at Lake Michigan in Saugatuck Township (see Figure 4-1). With the exception of lands adjoining Lake Michigan (which drain directly into the Lake) and a small area in the

southeast corner of Saugatuck Township, all land in the Tri-Community area is part of the Kalamazoo River Basin.

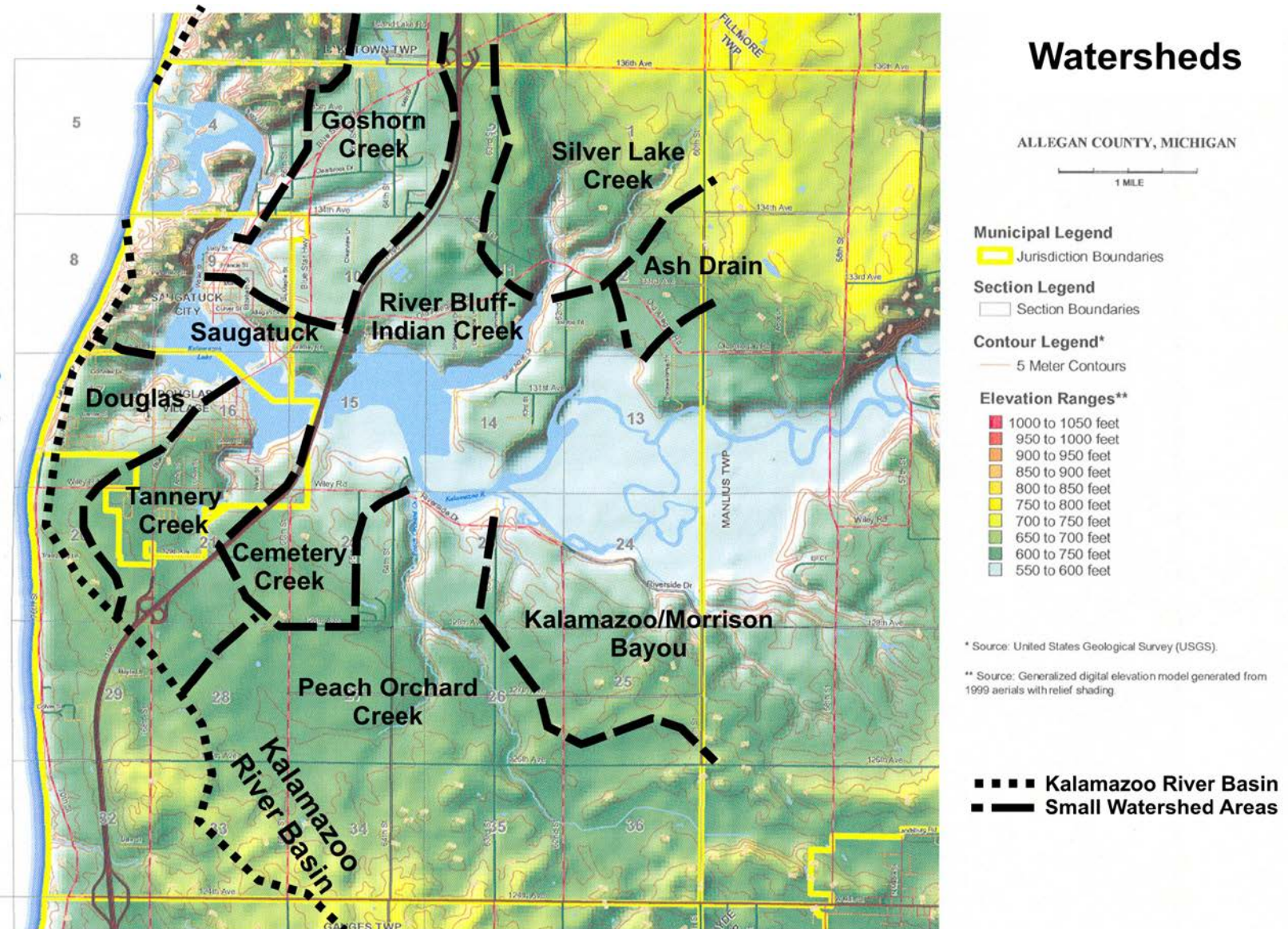
Eight small watershed areas lie within the Tri-Community area and discharge into Lake Michigan via the Kalamazoo River (see Map 8-1). These include Goshorn, Peach Orchard, Tannery, Silver and "Cemetery" Creeks, as well as the Morrison Bayou at the eastern end of the Kalamazoo River as it enters the Township. Most of the City of the Village of Douglas and Saugatuck also drain separately into the Kalamazoo River and Lake Kalamazoo. Slopes in the area are generally less than 10 percent though locally they may be in excess of 20 percent. Runoff erosion is taking place in the highlands, contributing sediment to back swamp areas and Lake Michigan.

Photo 8-3
**View from Tannery Creek Outlook of
Kalamazoo River and Distant Wetland Areas**



Source: Aaron Sheridan

Map 8-1
Tri-Community Watersheds



Source: Allegan County GIS, Allegan County Drain Commission and Planning & Zoning Center, Inc.

The flow of water in the Kalamazoo River has been recorded for over seventy years. Both flood-level flows and very low flows have occurred at various times. The level of Kalamazoo Lake is tied to the level of Lake Michigan, which also fluctuates.

Stream gauges at various places along the Kalamazoo River measure water flow and water quality. Data gathering from the gauge at Saugatuck ended in 1986. The latest complete range of information is from October 2012 to September 2013 and taken from the New Richmond Swing Bridge Park near Lake Allegan. Flow at New Richmond was 3,290 cubic feet per second in March of 2012. The mean monthly flows, in cubic feet per second, to Lake Michigan, as estimated by the Michigan Department of Natural Resources are shown in Table 8-1.

Table 8-1
Mean Monthly Flow of the Kalamazoo River, 2012-2013

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.
1,587	1,953	2,369	2,512	2,581	3,270	2,906	2,636	2,390	1,671	1,566	1,512

Source: USGS Monthly Statistics

Exceedance flows based on recent daily flow statistics from USGS. Daily mean flow statistics for April 1, 2012 based on 2 years of record in cu ft/sec. in 2 locations:

Table 8-2
Exceedance Flows of the Kalamazoo River, 2012-2013

Location	Current Flow	Minimum Flow	Mean	Maximum Flow	50% exceedance
New Richmond Swing Bridge Park (Manlius Township)	1,880 cu ft/sec	1,770	11,700	12,900	1,940

Source: USGS Monthly Statistics – Kalamazoo Data Report 2013

Exceedance flows indicate the percentage of the time that water quantity is greater than (exceeds) the volume indicated. In the above table, flow of the Kalamazoo River at Allegan exceeds 1,940 cubic feet per second 50% of the time.

PRIMARY ECOSYSTEMS

The Tri-Community area has three basic ecosystems, two of which parallel the waterfront. The first ecosystem is comprised of hardwoods holding the sand dunes in place along the Lake Michigan shoreline. These woodlots are inhabited by small game such as fox squirrels, rabbits, raccoons, deer, wild turkey, and opossums. This ecosystem is comprised of fauna common to most of Michigan, but its balance is easily upset by the disruption of its shallow organic soils. Any ground cover that is damaged or removed should be quickly replaced with cover that will hold and prevent sand from blowing or rapid wind erosion may occur. Michigan's most famous ghost town, Singapore, once a thriving lumber town, lies beneath these shifting sands near the mouth of the channel.

The second ecosystem is the marsh-wetland ecosystem that covers the area along the

Kalamazoo River, Silver Lake and Goshorn Lake, and the connecting tributaries. This area is covered with marsh grasses, low shrubs, poplar trees, spruces, some white pine, and other softwoods. The cover is inhabited by common Michigan marsh dwellers such as frogs, turtles, ducks, blackbirds, and snakes. The marsh ecosystem is also populated by muskrat, mink, mallard duck, black duck, teal, wood duck, blue heron, Canadian geese, and mute swans. Golden eagle and osprey used to frequent the area. The marsh ecosystem is very sensitive to changes in water quality and disruption of vegetation. Great care must be taken to limit situation and disruption to vegetation when working in this ecosystem.

The third ecosystem covers the rest of the Township and is predominantly agricultural/forest with birds and wildlife common to this dominant ecosystem in Michigan.

Under the state Wilderness, Wild, and Natural Areas Program (Part 351 of the Natural Resources and Environmental Protection Act of 1994), the DNR is charged with identifying, dedicating and administering wilderness, wild and natural areas. Within the Saugatuck region, the DNR has dedicated the Saugatuck Dunes Natural Area to protect the unique dune ecosystem of open dunes, blowouts, interdunal wetlands and wooded dunes. Pitcher's Thistle occurs within the area and is listed as a threatened species by both the state and federal government. The Saugatuck Dunes Natural Area is within Saugatuck Dunes State Park.

Sensitive dune ecosystems also occur in the dune areas on either side of the Kalamazoo River mouth at Lake Michigan. This area is planned for protection but details have yet to be finalized. Management would likely be the responsibility of the City of Saugatuck, Saugatuck Township and the State Park.

The entire Kalamazoo River, including the Saugatuck/Douglas area is designated as an area of particular concern by the DNR. Areas of particular concern are those having scarce resources, unusual scenic beauty, unusual economic value, recreational attractions, or some combination of the above. They are only located in coastal areas. Altering the environment in an area of "particular concern" could have a significant impact on the quality of coastal and Great Lakes waters.

The Kalamazoo River from Calkins Bridge Dam at Lake Allegan to about one-half mile downstream from the Hacklander Public Access Site (in Section 23), has been designated as a "wild-scenic river" under Michigan's Natural River Act, Public Act 231 of 1970. Land use restrictions have been imposed to retain its natural character within 300 feet of the River's edge. See Map 8-2. Newer environmental studies, including the 'Environmental Area Application Study,' a study by JJR, and Dayle Harrison's Kalamazoo River study, are available at the Saugatuck Township Office.

WATER QUALITY

The Kalamazoo River watershed includes many types of land uses and the River flows through several large developed urban areas including Kalamazoo and Battle Creek. When it reaches the Tri-Community area, the quality of this water is not good, but is improving.

Map 8-2
Kalamazoo River Wild-Scenic River Segment



Source: Michigan Department of Natural Resources

A Final Record of Decision was made at the Rockwell International Corporation national Superfund site in Allegan by US EPA in 2003 with some remedial cleanup actions currently taking place.

The basic water management goal is the elimination of the pollution threat to surface and groundwater resources. The Kalamazoo River is designated by the DNR to be protected for recreation (partial body contact), intolerant fish (warm water species), industrial water supply, agricultural and commercial uses. Downstream from the Kalamazoo Lake, the river is protected for cold water anadromous fish species (trout and salmon). Kalamazoo Lake and Goshorn Lake are designated to be protected for recreation (total body contact), and intolerant fish (warm water species). Action to implement water management goals has been slow but attempts to involve the public and take specific action have been made in recent years.

The 2004 Public Opinion Survey results reveal that citizens in the Tri-Community area feel that the water quality of the Kalamazoo River and Lake is important, with about 63% responding that they support efforts to improve water quality even if it required an increase in general property taxes.

Water quality is measured at various points on the Kalamazoo River and for various water quality measures. However, there has not been a consistent testing program for water quality in the Saugatuck/Douglas area for the past 15 years. Water quality testing stations are located upstream of Lake Allegan, primarily in response to the high input

levels of toxic materials, nutrients and sediments in the major urban areas upstream of Lake Allegan.

As part of the EPA National Sediment Inventory Program, fish from the Saugatuck portion of the Kalamazoo River are periodically sampled to test for bottom sediment contamination. These fish samples plus those taken by the US Fish and Wildlife Service and the state have led to fish advisories for PCB contamination.

The Kalamazoo River is listed as one of 43 Areas of Concern by the International Joint Commission under the Great Lakes Water Quality Agreement for the Great Lakes. The river's current impaired uses include the following:

Table 8-3
Kalamazoo River Area of Concern Impairments

Use Impairment	Explanation of Impairment	Scope of Impairment	Action Required
Restriction on fish and wildlife consumption	Fish consumption advisories since 1977 because of PCB concentrations in fish tissue. River sediments are the current source of PCBs.	From Battle Creek to the mouth of the Kalamazoo River at Lake Michigan.	Contaminated sediments remediation
Degradation of fish and wildlife populations	Warm water fishery impaired because of habitat loss and poor water quality. Reproductive success reduced in some bird and mammal populations due to PCBs in food chain. Introduced species have reduced populations of some native plants and animals.	Most of watershed experiences some degree of fisheries impairment. From Morrow Dam to mouth of the Kalamazoo River. Watershed-wide.	Erosion control; habitat restoration; Contaminated sediments remediation. Public education on the control of exotic species.
Bird or animal deformities or reproductive problems.	Nesting failure of bald eagles; high PCB concentration in eggs. PCB concentrations in fish, waterfowl, piscivorous mammals and raptors at levels known to cause reproductive impairment or deformities.	Allegan State Game Area. From Morrow Dam to mouth of the Kalamazoo River.	Contaminated sediments remediation.
Degradation of the benthos.	Bottom dwelling communities and habitats are moderately to severely degraded in many areas because of the accumulation of excess sediments, low oxygen levels and sediment contamination.	Throughout the watershed.	Erosion control; reduction in nutrient inputs; contaminated sediments remediation.
Restrictions on dredging activities.	Sediments contain concentrations of PCBs which exceed USEPA dredge spoil guidelines.	Kalamazoo River downstream of Morrow Pond.	Contaminated sediments remediation.

Table 8-3 (Continued)
Kalamazoo River Area of Concern Impairments

Use Impairment	Explanation of Impairment	Scope of Impairment	Action Required
Restrictions on body contact.	Swimming and other full body contact activities were not advised in 1998, but later reports suggest body contact for most activities is OK, with questions remaining regarding activities that stir up sediments.	Concentration of fecal bacteria exceeding full body contact standards result from storm water runoff from livestock waste and septic systems.	At and immediately downstream of Superfund units. Studies underway to determine if full body contact should be limited in other areas. In some tributaries, localized and occasional bacteria problems due to livestock waste and septic systems.
Loss of fish and wildlife habitat.	Wetland losses have eliminated important habitat for wildlife. Channel straightening, damming and alteration of removal of riparian vegetation alters flow, temperature and other important features.	Throughout the watershed.	Habitat restoration, and efforts to prevent further habitat losses.
Degradation of aesthetics. Occasional spills or runoff events cause odor or visual aesthetics problems.	Variable	Continue and improve regulatory and non-regulatory pollution prevention efforts.	

Source: US EPA

Efforts initiated in the '70's to identify and require extensive treatment of pollutants prior to their dumping into the River have already improved the quality of the water. As the nutrients like phosphorus and nitrogen are removed from wastewater entering the River, less new plant life will be stimulated and more oxygen will be available for fish.

In addition to the EPA Superfund site program sites, there are sites identified under Parts 201 (contaminated sites) and 213 (leaking underground storage tanks) of the Natural Resources and Environmental Protection Act, PA 451 of 1994. These are sites where runoff from contaminated land-based sites can degrade the quality of soil, groundwater or surface waters. A total of 44 Part 201 sites (currently one in Saugatuck and one in the City of the Village of Douglas) and 49 Part 213 leaking underground storage tanks (currently 6 in open status, 4 in closed status in Saugatuck and 2 each in open and closed status in the City of the Village of Douglas) were identified in Allegan County. (Michigan Department of Environmental Quality, Remediation and Redevelopment Division, 2004)

The Federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program. Under these laws, any public or private facility which will emit any point-source discharge into the water must first receive a NPDES discharge permit. The permit program sets forth limitations and monitoring requirements to protect water quality and meet treatment standards, and establishes strong enforcement actions for violations. The Surface Water Quality Division, MDEQ administers NPDES permits.

However, sedimentation and nonpoint sources of pollution will remain a problem. In contrast to pipes that discharge directly into a waterbody, nonpoint sources of pollution include those pollutants that do not originate from a single point—such as fertilizer and pesticide runoff from farmers fields and petroleum based pollutants that wash off parking lots and roadways. The most obvious pollutants are the physical litter and debris that are carelessly dumped into the River or Lake and which typically wash up along the shore.

Stronger efforts to improve water quality will have a positive affect on tourism, recreation, and future growth and development of the Tri-Community area. All sources of pollution affect water quality, and hence the utility of the water resource. While the Tri-Community area must rely on outside agencies to enforce pollution control laws upstream, some efforts can be undertaken by Saugatuck, the City of the Village of Douglas and Saugatuck Township to improve water quality and prevent further pollution within the Tri-Community area. These will be discussed further later in this Chapter.

While most pollution sources occur far upstream of Saugatuck/Douglas, toxic materials and nutrients make their way downstream to the Tri-Communities and into Lake Michigan. Nutrient pollution, primarily phosphorus, is recognized as a problem in the upper Kalamazoo River watershed. The DEQ, in cooperation with stakeholders in the Kalamazoo River watershed, developed in 2001 a cooperative agreement to reduce the total daily maximum load (TMDL) of phosphorus. This agreement seeks to reduce nonpoint source and point source phosphorus to 8,700 pounds of phosphorus a month from April to June and 6,700 pounds per month from July through September by working with NPDES permit holders and nonpoint sources. The agreement expires in 2010. The DEQ will continue to monitor phosphorus loads.

No actions or discussions are in the works concerning removal of the Calkin's Dam at Lake Allegan or the City of Allegan Dam.

The Kalamazoo River Watershed Council exists to help coordinate management of the watershed and to educate people in the watershed about management issues. For more information, go to: <http://kalamazooriver.org/>

The Watershed Council is organizing a river clean-up program. The program began with a focus on the portion of the River in Calhoun County, but is expanding. The clean-up may extend all the way to the mouth of the River in Saugatuck.

Bacterial Pollution

The Allegan County Health Department regularly tests Lake Michigan beaches, including some of those in the Saugatuck/Douglas area. The three communities contribute to the cost of water quality testing. Testing in past years has revealed levels of e coli high enough to close some beaches. Testing in 2003 was at six sites on the Kalamazoo

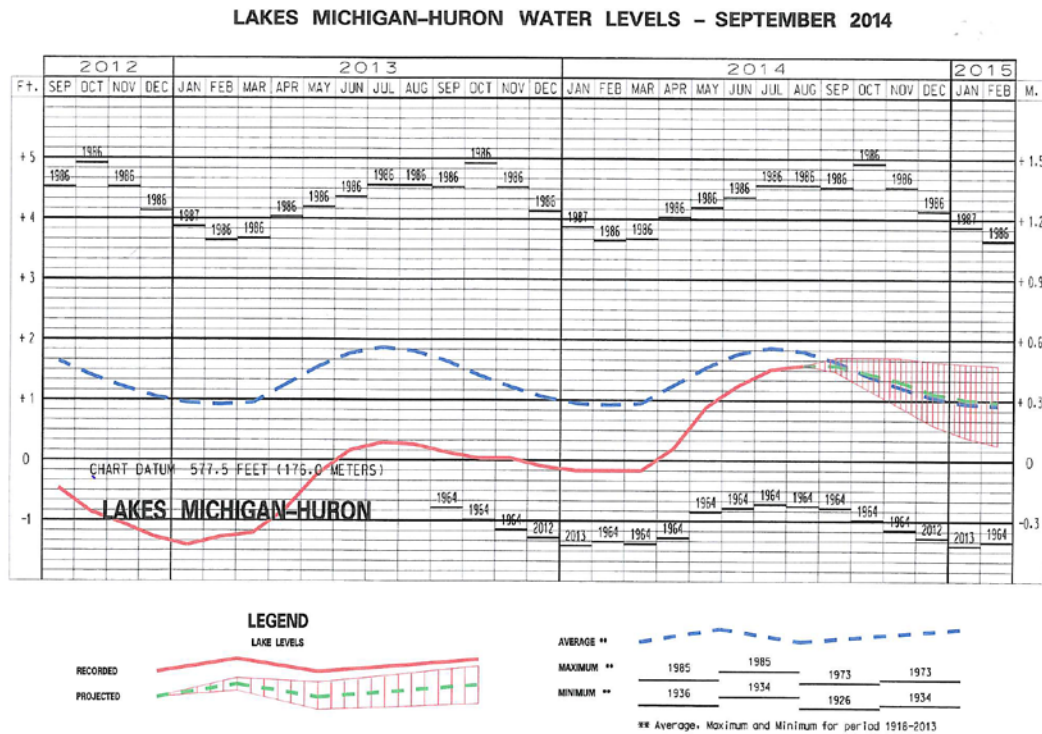
River, eight sites upstream from Saugatuck/Douglas on the river, six county drains in Saugatuck Township, four creeks and streams that run into the Kalamazoo River and Lake Michigan, Oval Beach, Douglas Beach and Mueller Beach near the 126th Avenue Township Park. While one test resulted in levels exceeding 300 colonies per 100 ml on one occasion at Veteran's Park, tests were generally well in the safe zone. Other samples at streams had somewhat high levels following rains, but then the rates dropped quickly to safe levels. Some drains were so clean that testing was stopped at those sites.

LAKE LEVELS

The natural level of the Great Lakes goes through periodic changes that are based predominantly on precipitation and evaporation within the entire Great Lakes Basin. Since a century peak in 1986, Lake Michigan has fallen and risen and fallen, creating both high water and extremely low water conditions. Low water in the early part of this century created both wide beaches and difficult boating as the level dropped to within half a foot of the record low. Recent and projected water levels of Lake Michigan and Lake Huron are shown in Figure 8-1.

The Kalamazoo River, Kalamazoo Lake and Lake Michigan are interconnected. Thus, water levels on the River and Lake Kalamazoo are largely dependent on Lake Michigan water levels. Consequently, land uses adjoining the waterfront should be based on the vagaries of fluctuating Lake Michigan water levels. This has not always been done as was evident by extensive shore erosion and flooding during the last high water period.

Figure 8-1
Lake Michigan Recent and Projected Water Levels, September 2014



Source: US Army Corps of Engineers

When water levels are high, “no-wake” zones, which are always in effect from the channel to Mason Street in Saugatuck, are extended to cover all of the Kalamazoo Lake shoreline and parts of the River east of Blue Star Highway. When a “no-wake” speed is In effect, then all motor boats and vessels must limit speed to a slow “no-wake” speed when within 100 feet of:

- rafts except for ski jumps and ski landing floats
- docks
- launching ramps
- swimmers
- anchored, moored or drifting boats
- designated no-wake zones.

“No-wake” means a speed slow enough that the wake or wash of the boat creates a minimum disturbance. Owners and operators of boats are responsible for damage caused by wakes.

HARBOR

Map 8-3 is the existing harbor map (June 1987) distributed by the National Oceanic and Atmospheric Administration. It depicts water depth for the shoreline along Lake

Michigan, and the River through Kalamazoo Lake. Channel depth is maintained by periodic dredging to a depth of 13 feet to Main Street in Saugatuck. (Dredging at the mouth of the channel has occurred every few years for many decades and will again occur in 2004.) The depth then drops to 20-27 feet for the next 500 feet. Between that point and Tower Marine, the water depth is about 7 feet. Most of the rest of Lake Kalamazoo varies between 1 and 4 feet in depth with not more than 2 feet being the most common. The Douglas shoreline, east of Blue Star Highway is only 1-2 feet in depth except for a small area running NW-SE from the center of the bridge and connecting to the Point Pleasant Yacht Club.

Photo 8-4

The Harbor is Home to Many Boaters and Marinas



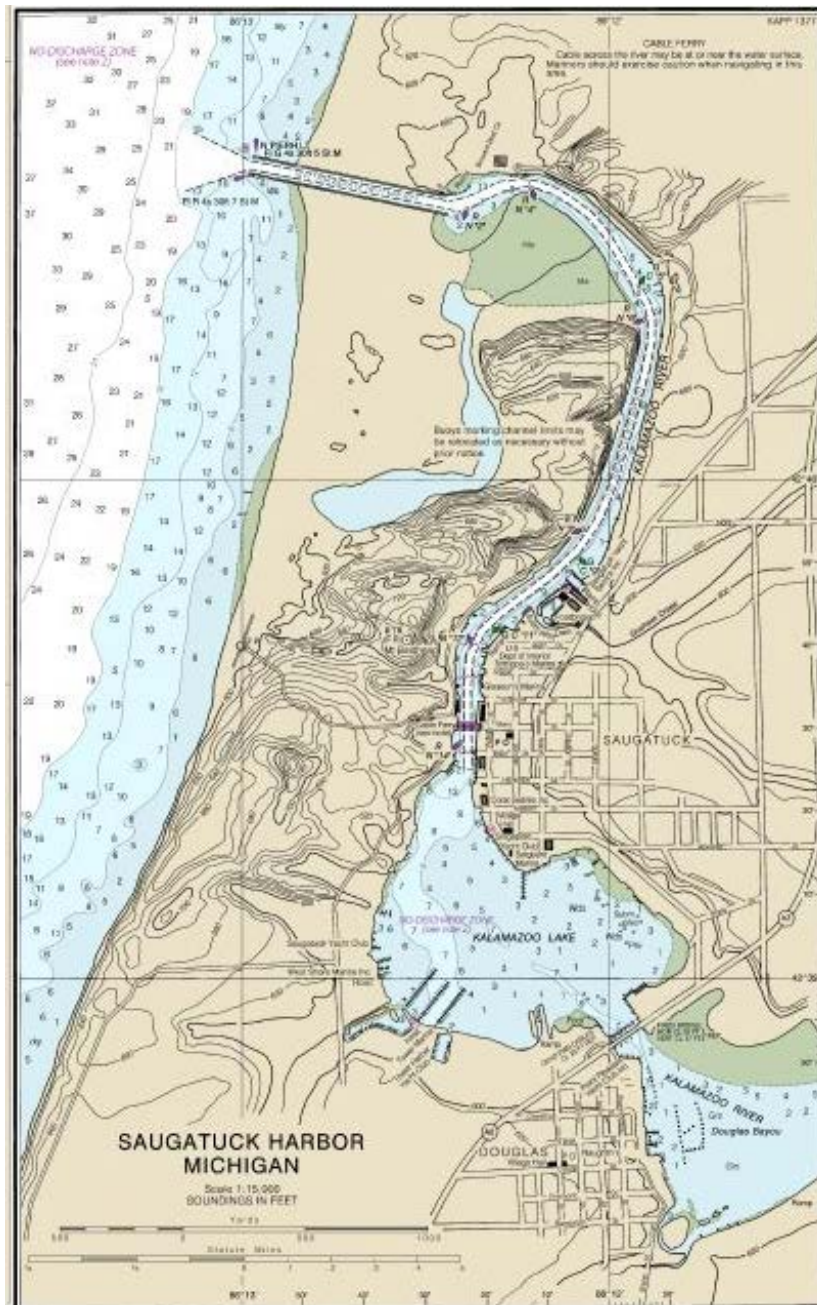
Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

This natural harbor is the principal attraction for nautical tourists which flock to the area during summer months when the marinas are used to capacity. Hundreds rent dockage by the season. Many live on their boats for weeks on end. The demand for dockage appears to be greater than the supply, despite the huge number of slips available (see Map 8-4). In 1976 there were 8 marinas with approximately 800 slips. In 1989, there were 26 legally operating marinas with 966 slips. In 2004 the MDEQ indicated that there were 36 marinas with 1,127 slips, of which 28 marinas with 930 slips had active or pending permits with the DEQ. Another 249 slips were in 7 marinas for which the permit applications were closed pending additional information. See Table 8-4. There are also a number of slips maintained by private residences for their own personal use.

Marina permits are required for any commercial activity, so as few as two slips could require a marina permit if they are rented, or if the property is owned by more than one person. Permits are issued for a three year period by the DEQ. On peak summer weekends the number of boats on the lake could be two to three times the normal level.

Kalamazoo Lake has a total surface water area of 184 acres. Acreage available for recreational boating is reduced by the dockage which extends into the Lake hundreds of feet and by the shallow water at the edge, which extends at least to the pier line of marinas on the south side of the lake, resulting in a boatable area of about 133 acres, unless the Lake is low, which reduces the boatable area even further. Yet, on summer weekends the River is a constant highway of boats moving in and out of the Lake. Recreational sailing, fishing, swimming, sailboarding and water skiing on Kalamazoo Lake are limited by fluctuating water levels, silt buildup, shallow water and "No Wake" zones. Those activities can also take place on Lake Michigan when conditions permit.

Map 8-3
Saugatuck Harbor Chart



Source: NOAA

Photo 8-5
Cruise Ship Entering Saugatuck/Douglas Harbor



Source: Robert Sapita, Kalamazoo Lake Harbor Authority

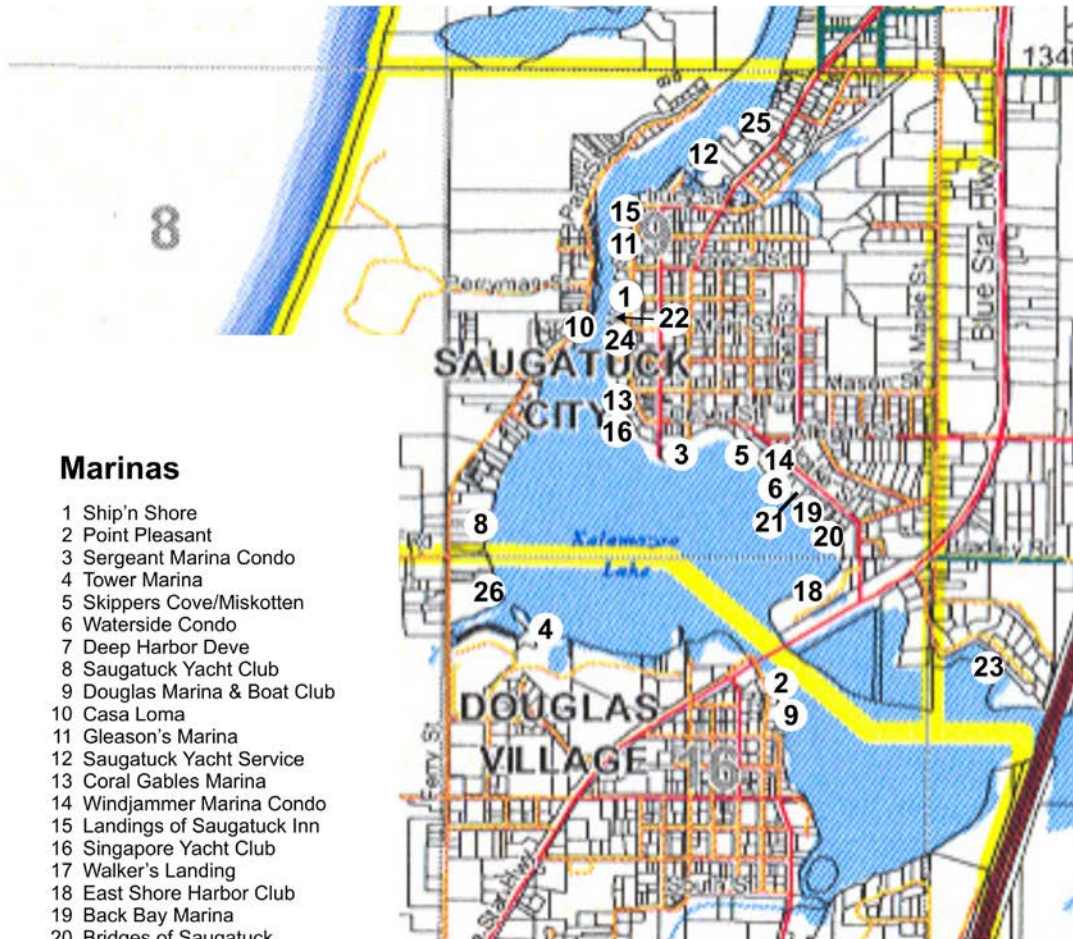
Passenger ships were once a thriving industry on the Great Lakes with Saugatuck/Douglas being one of the major ports of call. The growth of automobiles after WWII, changing harbor conditions, and the popularity of ocean cruising all but ended passenger ships on the Great Lakes. Lately however, this industry is undergoing a rebirth as several cruise lines now have regularly scheduled summer trips on the Great Lakes with itineraries that have included Saugatuck/Douglas. Some of the newer ships have been specifically designed with dimensions, draft, and handling characteristics to accommodate narrow channels and shallow waters. Some of the cruise lines cater to seniors and the ability to dock close to the city's many tourist attractions facilitates access at will.

Kalamazoo Lake Harbor Authority

The Saugatuck/Douglas harbor, like many harbors on the Great Lakes, is at the mouth of a major inland river. All of these harbors suffer to some degree with siltation buildup that can limit and in some instances totally inhibit navigation. The worsening conditions of the Kalamazoo River prompted the Tri-communities to conduct a formal study of the siltation problem in 2008. This was followed by the formation of the Tri-Community Harbor Committee that was chartered to seek funding for the candidate solutions outlined in the 2008 study. In an effort to maximize its financial and legal leverage, the Committee evolved into the Kalamazoo Lake Harbor Authority, under Michigan Acts, with the enactment of the Inter-Local Agreement between Cities of Saugatuck and the City of the Village of Douglas in 2011. The Authority is currently pursuing two programs to address the siltation problem. The 'Short Term Phase One' program is focused on dredging strategic channels along the shoreline to facilitate navigation to riparian property owners, marinas, yacht clubs, and municipal launching ramps. Periodic

dredging is expensive and never ending. The second program underway by the Authority is the 'Long Term Planning Study.' This study is focused on identifying candidate solutions to minimize the annual accumulation of silt in the harbor and thus minimize the ongoing maintenance of the navigable channels.

Map 8-4
Marinas in Saugatuck/Douglas



Marinas

- 1 Ship'n Shore
- 2 Point Pleasant
- 3 Sergeant Marina Condo
- 4 Tower Marina
- 5 Skippers Cove/Miskotten
- 6 Waterside Condo
- 7 Deep Harbor Deve
- 8 Saugatuck Yacht Club
- 9 Douglas Marina & Boat Club
- 10 Casa Loma
- 11 Gleason's Marina
- 12 Saugatuck Yacht Service
- 13 Coral Gables Marina
- 14 Windjammer Marina Condo
- 15 Landings of Saugatuck Inn
- 16 Singapore Yacht Club
- 17 Walker's Landing
- 18 East Shore Harbor Club
- 19 Back Bay Marina
- 20 Bridges of Saugatuck
- 21 Saugatuck Shores Condo
- 22 Main Street Docks - City of Saugatuck
- 23 Heron Bay Condo
- 24 Dockside Marketplace
- 25 Riverview Marina
- 26 Tower Harbor Marina Condo



Table 8-4
Saugatuck/Douglas Marinas

Marina Name	Marina Address	City / City of the Village	Water Body	Status	Expiration Date	Slips	Broadside Dockage (Lineal Feet)	Mooring Buoys
Ship'n Shore Motel & Boatel	528 Water St.	Saugatuck	Kalamazoo River	Issued	12/31/2004	0	349.5	0
Pier Marina	855 Lake St.	Saugatuck	Kalamazoo Lake	Closed	N/A	148	0	0
Point Pleasant Marine	201 Washington St.	Douglas	Kalamazoo River	Issued	12/31/2004	15	82	0
Sergeant Marina Condo. Assn.	31 Butler St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	47	0	0
Tower Marina	216 St. Peters Dr.	Douglas	Kalamazoo River	Pending	N/A	320	600	0
Skippers Cove	419 Lake St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2005	12	100	1
Bill Energy Inc.	685 Lake St.	Saugatuck	Kalamazoo Lake	Closed	N/A	6	0	0
Waterside Condo. Assn.	515 Lake St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	12	0	0
Naughtin's Marina	19 Water St.	Douglas	Kalamazoo River	Expired (demo)	12/31/1998	22	150	0
Saugatuck Yacht Club	833 Park St.	Saugatuck	Kalamazoo River	Issued	12/31/2004	23	0	0
Douglas Marina & Boat Club	16 Wall Street	Douglas	Kalamazoo River	Issued	12/31/2004	28	0	0
Casa Loma	405 Park St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	12	90	0
Gleason's Marina	650 Water Street	Saugatuck	Kalamazoo River	Issued	12/31/2004	9	0	0
Saugatuck Yacht Service	868 Holland St.	Saugatuck	Kalamazoo River	Issued	12/31/2005	86	0	0
Coral Gables Marina	220 Water St.	Saugatuck	Kalamazoo River	Issued	12/31/2004	3	265	0
Jack Hedglin	807 Lake	Saugatuck	Kalamazoo Lake	Closed	N/A	16	0	0
Windjammer Marina Condo.	335 Culver St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	12	0	0
Landings of Saugatuck Inn & Marina	726 Water Street	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	10	0	0

Table 8-4 (Continued)
Saugatuck/Douglas Marinas

Marina Name	Marina Address	City / City of the Village	Water Body	Status	Expiration Date	Slips	Broadside Dockage (Lineal Feet)	Mooring Buoys
Singapore Yacht Club	40 Butler St.	Saugatuck	Kalamazoo Lake	Issued	12/31/2004	51	0	0
West Shore Marine, Inc./ Singapore Harbor LLC	841 Park	Saugatuck	Kalamazoo Lake	Issued	12/31/2005	81	0	0
Singapore Yacht Club	40 Butler St.	Saugatuck	Kalamazoo Lake	Closed	N/A	50	0	0
East Shore Harbor Club	971 Lake Street	Saugatuck	Kalamazoo Lake	Expired	12/31/1999	54	0	0
V & L Properties	379 E. 26th St.	Holland	Kalamazoo Lake	Closed	N/A	N/A	N/A	N/A
Back Bay Marina	643 Lake Street	Saugatuck	Kalamazoo Lake	Issued	12/31/2005	12	0	0
Bridges of Saugatuck	455 Culver	Saugatuck	Kalamazoo Lake	Expired	12/31/1996	8	0	0
Coral Gables	220 Water St.	Saugatuck	Kalamazoo River	Closed	N/A	29	0	0
Dock Foundry Wharf	483 Park St.	Saugatuck	Kalamazoo Lake	Extend	12/31/2000	9	90	0
Saugatuck Shores Condos	555 Lake St.	Saugatuck	Kalamazoo River	Expired	12/31/1994	16	0	0
Ferry Store	116 Riverside Drive	Saugatuck	Kalamazoo River	Closed	N/A	0	145	0
Main Street Docks	102 Butler Street	Saugatuck	Kalamazoo River	Pending	N/A	10	0	0
Heron Bay Condo	PO Box 986	Saugatuck	Kalamazoo River	Issued	12/31/2006	6	0	0
Dockside Marketplace	PO Box 369	Douglas	Kalamazoo River	Pending	N/A	N/A	N/A	N/A
Riverview Marina	868 Holland St.	Saugatuck	Kalamazoo River	Issued	12/31/2005	34	0	0
Shore Harbor Marina	800 Holland St.	Douglas	Kalamazoo River	Closed	N/A	N/A	N/A	N/A
Tower Harbor Marina Condo	219 Ferry St.	Douglas	Kalamazoo River	Issued	12/31/2005	38	0	0
Total Slips						1,179		

Source: Michigan Department of Environmental Quality, 2004

Notes: Closed- File was closed due to incomplete information or a duplicate file; Extend- MOP expiration was extended indefinitely due to staff shortage; Pending- Permit application review is pending resolution of other violations or submittal of additional information from marina owner/operator; Saugatuck Yacht Club also has a launch ramp.

Photo 8-6
Marina in Lake Kalamazoo



*Source: Felicia Fairchild, Saugatuck Douglas
Convention and Visitors Bureau*

MARINE SAFETY

The Allegan County Sheriff's Department, Marine Unit, maintains strict control of the waterways. From Memorial Day to Labor Day officers patrol Kalamazoo River and Kalamazoo Lake. One hundred and ten hours were spent patrolling Lake Michigan alone in 2003. Most patrols occur between Friday and Sunday, and about half of the Department's budget goes to patrolling the Saugatuck area.

In the summer of 2004, 8 tickets were issued on Kalamazoo River and Lake, and 8 were issued on Lake Michigan. 22 complaints were received for Kalamazoo Lake and River, and 20 on Lake Michigan. There were no reported accidents on Kalamazoo River and Lake and only 1 on Lake Michigan. The most common violations are inadequate life preservers on board and lack of current registration.

EXISTING LAND USE ALONG WATERFRONT

Existing land use is described in detail in Chapter 5. All land uses along the waterfront are oriented to the water. The bulk of the waterfront in the Township from the channel to the City is undeveloped as single family residential. The Saugatuck City and the City of the Village of Douglas waterfronts are predominantly residential, commercial and marina. The balance of the waterfront, which lies in the Township, is in a natural state with some areas of residential development (such as along Silver Lake). There are no industrial activities along the waterfront. A number of small parks are located along the waterfront, but there are few public access sites and, except for Shultz Park, these provide little space for transient parking.

High Water/Low Water

When Great Lakes water levels are high, erosion along the Lake Michigan shoreline increases. The impacts of erosion are clear along Lakeshore Drive, where part of the road has been washed away. Many high value homes will be threatened by additional erosion in this area. Virtually the entire Saugatuck City and Township and Douglas Village coastline is designated as a high risk erosion area by the DEQ. See Map 4-7 in Chapter 4. There are hundreds of homes within this area.

Photo 8-7

Residential and Recreational Use of the Kalamazoo Lake Shoreline



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

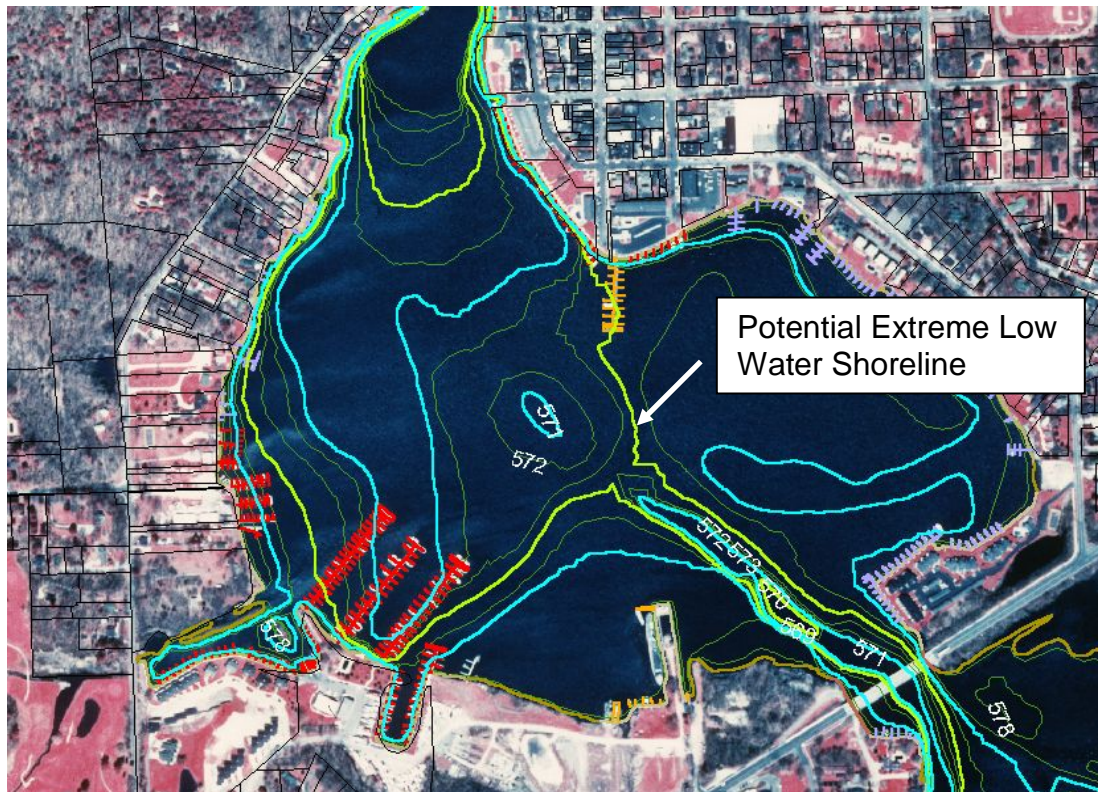
Erosion along the River and Lake Kalamazoo also increases with higher Lake Michigan water levels. Many bulkheads and similar shore protection devices were installed to minimize the effects of the most recent high water level. Raising some of the land and structures would be necessary if lake levels remained high for lengthy periods. On the positive side, the south shore of Lake Kalamazoo becomes more attractive to marina development when water levels are high since it is very shallow in this area. Likewise, when water levels are below average, some existing dockage is unusable.

See Figure 8-2. The **Lake Michigan Potential Damages Study** (US Army Corps of Engineers, 2002) found that extensive areas of Kalamazoo Lake could be exposed if the level of Lake Michigan dropped to a potential low below that recorded in recent history. This low level may be possible according to physical evidence and hydrologic

calculations. This potential low is about two feet below recent low levels that have been a problem for area boaters.

Fluctuating lake levels are part of a natural system. The costs and implications of trying to artificially manage the entire Great Lakes Basin to maintain even Lake levels is not known, but waterfront land use decisions in the Tri-Community area should be made based on the assumption that Lake Michigan water levels cannot be artificially maintained.

Figure 8-2
Potential Low Water in Saugatuck Harbor



Source: US Army Corps of Engineers, 2002

The yellow line represents the potential shoreline at projected lows on Lake Michigan. At that level, hundreds of boat slips would be “high and dry.” The yellow line is not a predicted low level, but is believed possible, given evidence of lake levels that occurred prior to settlement by people of European origin.

Acquisition and Development of Public Lands Along the Waterfront

About half of area residents (51%) support increasing public access to Lake Kalamazoo. (Tri-Community Public Opinion Survey, 2004) While the survey didn't distinguish between public boating access and public pedestrian access to the shoreline, both should be considered. There are only two viable public boat launching ramps, but there are launching opportunities at private marinas for larger boats. Both pedestrian lakefront access and boating contribute to the local economy by boosting the tourism draw of the communities. Pedestrian access to the water is very important in enhancing the nautical ambiance of Saugatuck and the City of the Village of Douglas.

Due to the topography of the area around Lake Kalamazoo, and the relatively shallow depth of the Lake, providing boat launch ramp access is somewhat difficult. During the recent low water periods, use of the existing ramps was limited. At either extreme of Lake Michigan water level, either high or low, both existing ramps would be unusable. (**Lake Michigan Potential Damages Study**, 2002) This makes lift-type launching facilities, such as those at some marinas, and frequent channel dredging useful to promoting boating. The 2004 Community Opinion Survey found that 50% of respondents believed that boat launching facilities were adequate, while 21% thought them inadequate.

Photo 8-8
Boat Launch Ramp Sites are Difficult to Provide Due to Shoreline Topography and Shallow Depth of Lake Kalamazoo



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

The City, the Village and the Township each continue to try to acquire park space along the Kalamazoo Lake and River waterfronts. The City of Saugatuck recently acquired and dedicated Coghlin Park in order to help provide more pedestrian access.

A committee of local, university and state officials began meeting in 2004 to try to improve and expand boating in Lake Kalamazoo and the Kalamazoo River. Among the concerns of this committee are the location of a dedicated spoils site for dredging material removed to make boating more feasible on Kalamazoo Lake, and finding a permanent funding source for recurrent dredging that is needed to maintain boating and reduce flooding potential. A spoils site must be carefully located to prevent groundwater contamination from the dredged materials. The U.S. Army Corps of Engineers may be a

potential source of funding. The Committee’s recommendations will be included in the Comprehensive Plan Update as appropriate.

The 2004 Community Opinion Survey found mixed opinions regarding boating related facilities. These results are shown in Table 8-5.

Table 8-5
Tri-Community Boating Related Survey Responses

Facility	Somewhat to Very Adequate	Neither Adequate nor Inadequate	Somewhat to Very Inadequate	Don't Know or No Opinion
Boat Launching	50%	6%	21%	23%
Transient Boat Docks	30%	10%	28%	32%
Boat Slips (rental)	41%	11%	15%	34%
Boat Slips (Condo)	40%	13%	7%	39%
Marinas	50%	9%	13%	27%
Boat Service	41%	12%	12%	36%
Pump-out Facility	26%	13%	12%	49%
Fish Cleaning Stations	19%	15%	15%	51%
Designated Boat Mooring Sites	19%	17%	22%	42%
Designated No Wake Zones	41%	12%	15%	31%

Source: 2004 Tri-Communities Public Opinion Survey, conducted by Western Michigan University (WMU). WMU Percentages rounded to the nearest percent.

It appears the boating-related facilities most in need of improvement are fish cleaning stations, pump-out facilities and designated boat mooring sites. The shallow nature of Lake Kalamazoo may severely limit expansion of mooring sites.

Note that the relatively high number of “No Opinion or Don’t Know” responses may come from the non-boating and non-fishing part of the population.

Limiting the Intensity of Development

The primary future development of waterfront lands in the City will be redevelopment of existing parcels. In the Village it will focus on further development along the South Shore of Lake Kalamazoo. In both areas it will be critical that new development is neither so dense, nor so high as to block existing public views of the waterfront or further "wall the Lake with structures." Both Saugatuck and the City of the Village of Douglas have revised their zoning ordinances to limit the height of construction along the waterfront to 28'. It will be critical that all three communities agree to a common approach to waterfront development, embody that in land use plans, and then implement those plans. To some extent, uniform densities, setbacks, and height regulations will be valuable, especially around Lake Kalamazoo. This is especially true with regard to

regulations over “bigfoot” homes on existing lots.

Additional development around Silver Lake needs to remain at a very low density in keeping with the septic limitations of the land and the limited recreational value of this shallow waterbody. The eastern end of the Kalamazoo River should likewise receive little new development in keeping with its Natural River designation.

Retaining Visual Access, Aesthetics and the Character of the Area

As has been emphasized throughout this Plan, the natural beauty of the waterfront has much to do with the attraction of the Tri-Community area. Local development regulations should be reviewed and revised if necessary, to insure that new development complements, rather than detracts from this natural beauty. Old vessels should not be permitted to lie beached along the shoreline, because this also detracts from the beauty and character of the waterfront. Dredging a proper channel (if permits could be obtained) and re-floating along with restoration of ship rooms for transient lodging, with the old Frankfort ferry now docked adjacent to (and a part of) a motel in Manistee, would be a big improvement.

Photo 8-9

Tourism Depends in Part on Retaining Views of the Water



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

Several vistas have public values that deserve protection. These include the entry into and exit from Lake Michigan on the Kalamazoo River, the view from Mount Baldhead, the view of Kalamazoo Lake from both ends, and approaches to the Kalamazoo River Bridge. Development pressure continues to foster the building of condominiums along the waterfront, limiting public viewing of the lake from existing rights-of-way. Yet there is strong public opposition to “walling off” the waterfront so zoning ordinances should be reviewed to ensure they adequately prevent unwanted development.

Any future development along the channel should be set back sufficiently to maintain the broad open views that are presented to boat travelers entering or leaving the Kalamazoo River. The view from the top of Mount Baldhead should be improved by careful selective pruning of dead or dying trees blocking good views of Saugatuck and Lake Kalamazoo. The curve going northbound on Blue Star Highway in the City of the Village of Douglas

just before crossing the bridge is the only good panorama of Kalamazoo Lake. A public turnoff, the acquisition of a scenic easement, or the concentration of new development on the western portion of those undeveloped lands should be initiated to protect that important view. In addition, the land adjacent to the west side of the bridge in Douglas should be selectively pruned to improve the view to travelers crossing the bridge (northbound) until a project that protects views could be established there.

SURFACE WATER USE CONFLICTS

Carrying capacity refers to the physical capacity and intrinsic suitability of water to absorb and support various types of use. Such an analysis is typically performed by an inventory of existing surface water use during weekdays and peak weekends. Data is then examined to match the size of the waterbody and its capacity to assimilate various mixes of use. Such an analysis would probably reveal there is not much excess capacity for new boat slips in Kalamazoo Lake and River.

Without an analysis of carrying capacity, it is impossible to determine an appropriate number of new boat slips or resolve related surface water use conflicts. Some time or surface zoning could be established in conjunction with the DNR if desired. For example, water skiing, jet skiing, fishing, sailing, etc. could be limited to particular parts of Lake Kalamazoo or Silver Lake or to particular times of the day. Another option could be a harbor patrol paid for by all three governmental units. More information is necessary to establish the need for regulation. If surface water use is regulated, each unit of government would need to agree to a common regulatory approach. A Harbor Committee is looking at the issue of surface water capacity in 2004.

Surface water use conflicts may grow more acute on Lake Kalamazoo if existing dockage is extended much further into the Lake. Such extensions should not be permitted as the surface area available for various recreational uses will be too drastically reduced. Existing no-wake zones should also be more rigorously enforced. For a more complete analysis of possible harbor regulation, see the McKenna Report starting on page 84.

RECOMMENDATIONS TO GUIDE FUTURE USE

In seeking to balance economic development with environmental protection, the concept of carrying capacity should be a major consideration. If the carrying capacity of land or water is exceeded, then activities cannot be undertaken without unacceptable impacts on users, the environment, or both. Impacts can include increased trip times, decreased safety, pollution, loss of open space, and many other considerations. The key is prevention of overuse by limiting intensity of use on adjoining lands and regulating surface water use.

Environmental protection must be a leading principle in making future land use decisions along the waterfront. Environmentally sensitive areas such as sand dunes, wetlands, high risk erosion areas, floodplains, and key woodlands should be protected from unnecessary destruction. Development should complement rather than destroy these areas and their values. By doing so the environmental quality of the air and water will be improved, wildlife habitat will be preserved, scenic values will be protected, and the character of the area will be maintained. Some new intensive shoreline development will be desirable and necessary, but the balance should not be disproportionately on the side of new tax base as it has been for the past three decades.

Opportunities to enhance the waterfront should be seized. Parks and open spaces should eventually be linked with other public places. Additional access to the waterfront should be acquired when available, and existing access via street ends and parks should not be lost through neglect or inaction. A new public marina with deeper water access is one possible approach to improve public access, and could be constructed if resources are available and the cost could be spread among local citizens and other users (such as through grants or user fees). Visual access from public thoroughfares and walkways should be maintained in all new waterfront development.

Protection mechanisms, like the Natural River designation, should be recognized for the ancillary benefits they bring to the community. A local "Friends of the River" organization could be instituted to annually adopt and clean up the shoreline to remove floating debris, other waste, and downed timber that become lodged there. A special effort to maintain the character of Lakeshore Drive along the Lake Michigan shoreline should also be initiated. Maintaining vegetation is critical to both the stability of shoreline areas and to a natural visual character. Street trees along Lakeshore Drive (and along many other streets in the community) are of a very advanced age for their species (primarily Silver Maple) and are dying off. Replanting is long overdue.

A comprehensive stormwater management plan and wetlands protection plan should be instituted as part of a broad water quality protection program that is based on the small watersheds that feed the Kalamazoo River Basin. The Natural Resource Conservation Service should be asked to assist in preparing nonpoint pollution guidelines to help guide farmers in land management practices that help keep the River clean.

NEED FOR INTERGOVERNMENTAL COOPERATION

Each of these recommendations requires a strong degree of intergovernmental cooperation. Watercourses, like the environment, do not respect jurisdiction boundaries. The future quality and desirability depends on governmental units through which they flow playing an active and supportive role in protecting and improving water quality. To advance this goal, the jointly appointed waterfront committee should be re-instituted or its responsibilities shifted to the Planning Commissions of the three communities or a joint planning entity if one is instituted. As an alternative, the new Harbor Committee may be suitable to take over these responsibilities if it shares the concerns and recommendations of this Chapter.

Chapter 9

GROWTH AND DEVELOPMENT TRENDS

Growth and development trends reflect past settlement patterns in a community and provide a basis for estimating future development patterns. Growth rates are one aspect of change. These show which areas are growing at a faster rate. Residential construction permits show where most of this residential development is taking place and provide insight into residential preferences.

Land subdivision trends show the rate at which small lots are created. Rapid land subdivision carves up agricultural land and other open spaces for residential use and thus permanently transforms the rural character of an area. Inefficient land subdivision takes large amounts of potentially developable land out of use as long "bowling alley lots" or "flag lots" are created.

Population trends may be used to project future population, which is used to estimate future land use needs and settlement patterns in a community. And finally, a "build out" scenario may be created based upon the vacant or buildable sites in an area to get an idea what the area might look like if it were developed according to current zoning and use requirements. A more complete discussion of these issues is included below.

Growth Rates

The population of the Tri-Communities has grown since 1970. The rate of growth has varied each decade since 1970, and each of the three communities grew at substantially different rates from each other each decade, the population of Saugatuck City has both increased and declined during that time. Between 2000 and 2010, the Township's population growth rate was 24%, a lower rate of growth compared to 40% for the period of 1970-1980. Still, the 2000-2010 rate was higher than that between 1960 and 1970 (11%) and between 1980 and 1990 (7%), but slightly lower than the 1990-2000 rate of 27%. The growth rate in the City of the Village of Douglas was 17% between 1990 and 2010. This was lower than the 35% growth rate between 1970 and 1980, and lower than the 17% growth rate between 1990 and 2000. The City of Saugatuck went from a 19% growth rate in the 60's to only 6% growth in the 70's, to a decline of 13% in the 80s to an increase of 12% in the 90s and then back to a slight decline of -3% between 1990 - 2010.

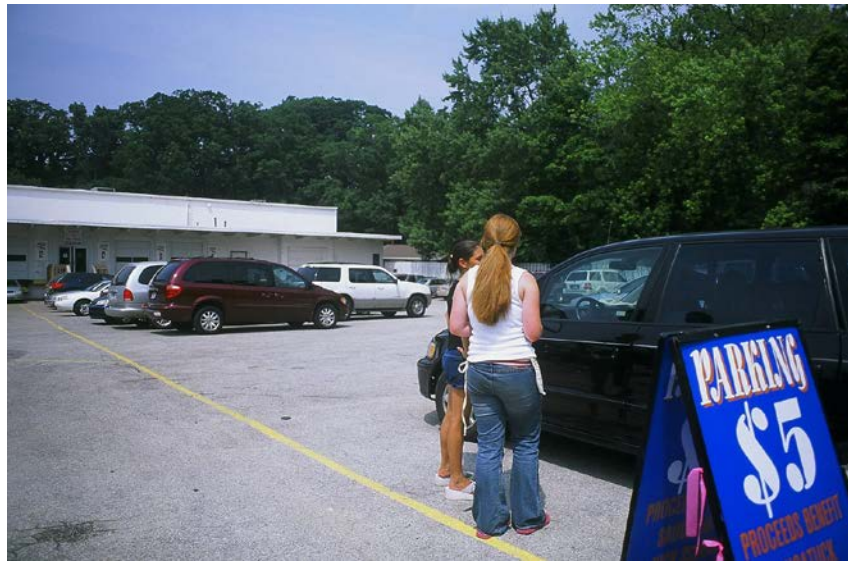
See Chapter 2: Demographics. The Tri-Communities as a whole increased by 31.5% between 1990 and 2010, or nearly 1,222 persons. This is a moderate rate of growth for an area the size of the Tri-Communities. Lower growth was largely attributable to the housing economic downturn.

It is important to note that while the Township's population increased by 56.9% from 1,876 in 1990 to 2,944 in 2010 the number of households have grown to 1,196. This reflects a national trend of larger household size (number of persons per household, not smaller dwelling sizes), and a continuation of this trend will place additional growth pressure on the Tri-Communities in general and Saugatuck Township in particular that is reflected in a buildout analysis in table 9-1. All of the Tri-Communities had an increase in household size with a resulting greater increase in population than increase in housing,

that may reflect a growing interest in the Cities or entire Tri-Communities as a desirable place for families.

The City of Saugatuck's slower growth rate is due in part to a shrinking supply of vacant or developable land and in part to a higher proportion of seasonal residents and elderly in small households. The Township's large supply of land has translated into high growth rates. The City of the Village of Douglas continues to have a high rate of growth (17% between 2000 and 2010, or 183 persons), and also still has land available to develop.

Photo 9-1
**Saugatuck City Attracts Many People
but Space is Scarce**



Source: Felicia Fairchild, Saugatuck Douglas Convention and Visitors Bureau

The 2004 Community Opinion Survey found that respondents thought the ideal population of the Tri-Communities was no larger than 1.5 times its present size, even though there is land available for it to grow as much as 2.9 times larger than at present. 52% of the respondents thought that Saugatuck City should remain the same population, 43% thought the City of the Village of Douglas should be no larger and 27% thought the Township had reached its ideal population. Slightly more respondents (28%) thought that the Township had an ideal population about 1.5 times larger, or about 3,600 persons (up from the 2000 Census population of 2,376). Another 16% thought the ideal Township population was twice its present size and 17% didn't know or had no opinion. Fewer than 10% thought the Village or City ideal population was twice its present size, while 22% thought the City should be 1.5 times larger, and 28% of Village respondents felt it should be 1.5 times larger.

If the City, Village and Township were all to grow to 1.5 times the present population, then the City would add 533 residents, while the Village would grow by 607 residents and the Township by 1,188. This would bring the total Tri-Community population to 6,341 persons.

There is no question that both the Village and the Township could accommodate this

projected growth with currently available undeveloped land. However, in order for the City to, the average population per household would have to rise or apartments would have to accommodate most of the new persons as there is insufficient undeveloped land to accommodate that many people (except on the Oxbow Peninsula where undeveloped, privately owned land is planned for long term preservation, not residential development).

This preference for a limited population poses particular challenges for the Township. A build out analysis in Table 9-1 reveals a total allowed number of dwellings of 3,082 at 2.44 persons per Household as seen on Table 2-3, that when multiplied allow for a population of 7,520 “build out” population in the Township’s residential zoning districts. This is about 2.554 times the current 2010 US Census population of 2,944. The build out analysis starts with the acreage area of different zoning districts, minus 55% for right-of-way and severe limitations for unbuildable lands such as wetlands like the Kalamazoo Marsh or steep slopes, poor or no access and or soils not conducive to development. Based on the resulting acreage figures for each zoning district, the calculation can be used to determine a conservative number of potential minimum dwelling units according to allowed densities; then multiplies this number by the average household size according to latest available Census data.

Table 9-1
Build out Analysis of Saugatuck Township

Residential Zoning District	Area in Acres	Buildable Acres (minus 55 % for ROW & Severe Limitation)	Minimum Lot size of acres for Dwelling Unit	Minimum Dwelling Units
A-1	5,010	2,255	1 du/2.5 acre	902
A-2	4,033	1,815	1 du/2.5 acre	726
R-1	996	448	1 du/0.91 acre	492
R-2	1,390*	626	1 du/1.5 acre	417
R-3	314	141	1 du/0.46 acre	307
R-3B	793	357	1 du/1.5 acre	238
Totals	12,536	5,642	0.91 – 2.5	3,082

Source: Allegan County Land Information Services and Township Code of Ordinances: Chapter 40.

*Pottawatomie Marsh is approximately 911 acres and deducted from R-2 Zone.

If Households demographics remain constant and dwellings conform to zoning and minimum lot sizes; Township planners can anticipate a total estimate “build out” of 3,082 dwellings and/or 6,820 people allowed under current zoning. This “build out” population is less than that of 2005’s primarily because annexations of land by the City of Saugatuck and the deduction of the Pottawatomie Marsh

being removed from the R-2 Zone District.

Photo 9-2

Maintaining Rural Character in Saugatuck Township is Important to Residents



Source: Aaron Sheridan

If the Township continues to allow the existing zoning density it will, over time, greatly overbuild, relative to the desires of 58% of its residents. If it greatly reduces permissible density and large landowners have come to expect that their land value is based on current density (not a much lower density), there will likely be very unhappy landowners and there may be both political and legal ramifications of such a change. This is compounded by the fact that citizens at a Town Meeting in May 2004 were evenly split over whether density should be reduced, in order to better meet a desired, lower expected population, in the area north of the Kalamazoo River or the area south of it. On the other hand, reducing residential development density in areas currently farmed is completely consistent with public desires to preserve farmland and open space, and will reduce or delay the need to provide utilities or other public services to these areas any time soon. Encouraging more clustering of new development will preserve more open space, but won't in and of itself reduce overall dwelling units and will put more pressures on farmers to convert land out of agriculture sooner. Absent a determination to greatly lower zoning density and manage existing large acreage parcels for agriculture or forestry, or a major effort to purchase development rights of existing farmland using the fledgling County PDR program, or protect the land through donations or conservation easements, the rural lands of the Township will eventually yield a population about 2.9 times the present population. A voluntary effort on the part of new rural residents to not maximize density on their land could also aid in reducing the eventual population in the Township, if a significant proportion of rural residents followed such a course. It will be possible to reduce the visual and environmental impact of new development through PUDs, clustering and vegetative buffering, but a greatly enlarged population will still require increased school, recreation, police, fire, health care, road maintenance and improvement and utilities services. Generally new residential development does not return as much in new tax revenues as it costs in new public services. Thus, the new residents, when accommodated at a low density could create fiscal stress as well as social stress if they "chew up" open space and create more public service costs than they pay for. These public service costs include school expansion, police and fire,

recreation programs and roads. While a large portion of road improvements are paid for by the County, the Township supports a millage (renewed in August 2004) in order to increase road maintenance above the level provided by the County, and would likely need to be increased if low-density residential development were to continue according to present zoning. This is a difficult issue facing many rural townships that is easy to ignore as market demand is low enough that future public service costs won't be borne by current tax payers. The Plan acknowledges the issue and the Township Planning Commission will continue to explore the ramifications and the viability of various alternatives over the next few years. A new solution may emerge from further analysis.

Photo 9-3
**Residential Construction Takes All Types:
New Cottages at Summer Grove**



Source: www.summergrovecottages.com

Residential & Commercial Construction

As a major part of the economic slowdown evident across the country starting in late 2008 a marked decrease in residential and commercial building permits took place in the Tri-Communities. Refer to the latest building permit report. The decrease follows a period of more intensive activity in the early 2000s. The Tri-Community Plan from 2005 expressed concern about increasing pressures for development in the area, partly in response to that period of more intensive activity. While decreased activity does not necessarily mean that increased development pressure primarily will never take place again, it does allow the Tri-Community and each entity more time to formulate plans and ordinances to help direct development to the most appropriate places that can best support such development.

POLICY IMPLICATIONS

If development were to proceed under existing zoning, as reflected in the build out scenario, then the Tri-Communities would gradually turn into a suburban enclave,

complete with a long commercial strip from the north freeway interstate exchange of Blue Star Highway to the south freeway interchange in the City of the Village of Douglas. This is problematic in light of the 1988 and 2004 Public Opinion Surveys which revealed the vast majority of respondents have the following preferences:

- maintain the scenic, small town/rural character of the area;
- limited, well-planned and attractive strip commercial development;
- small commercial shopping centers at the interchanges;
- preserve open space along the waterfront and in the Township in general and along roads in particular.

These results suggest the need to again reevaluate current zoning and regulatory policy. Evaluation of zoning and regulations following the preparation of the 1989 Comprehensive Plan led to changes in Township zoning that have reduced the potential number of dwelling units from about 17,000 to about 7,300. It may be necessary to shape the residential policy in the Township even further. Policies to achieve the public's development objectives are included in Chapter 1, and the Future Land Use Plan in Chapter 10. Regulatory tools, such as zoning, subdivision regulations, and site plan review will ultimately need to be amended to implement the policies of this Plan.

Chapter 10 FUTURE LAND USE

INTRODUCTION

Good land use planning is essential to the future quality of life in the Tri-Communities. Actual future land uses are difficult to predict and guide to achieve desired results. A future land use map and plan expresses local and use goals and policies and provides a land use scenario which a community may use as a physical guide. Goals and policies, in turn, drive land use and development decisions.

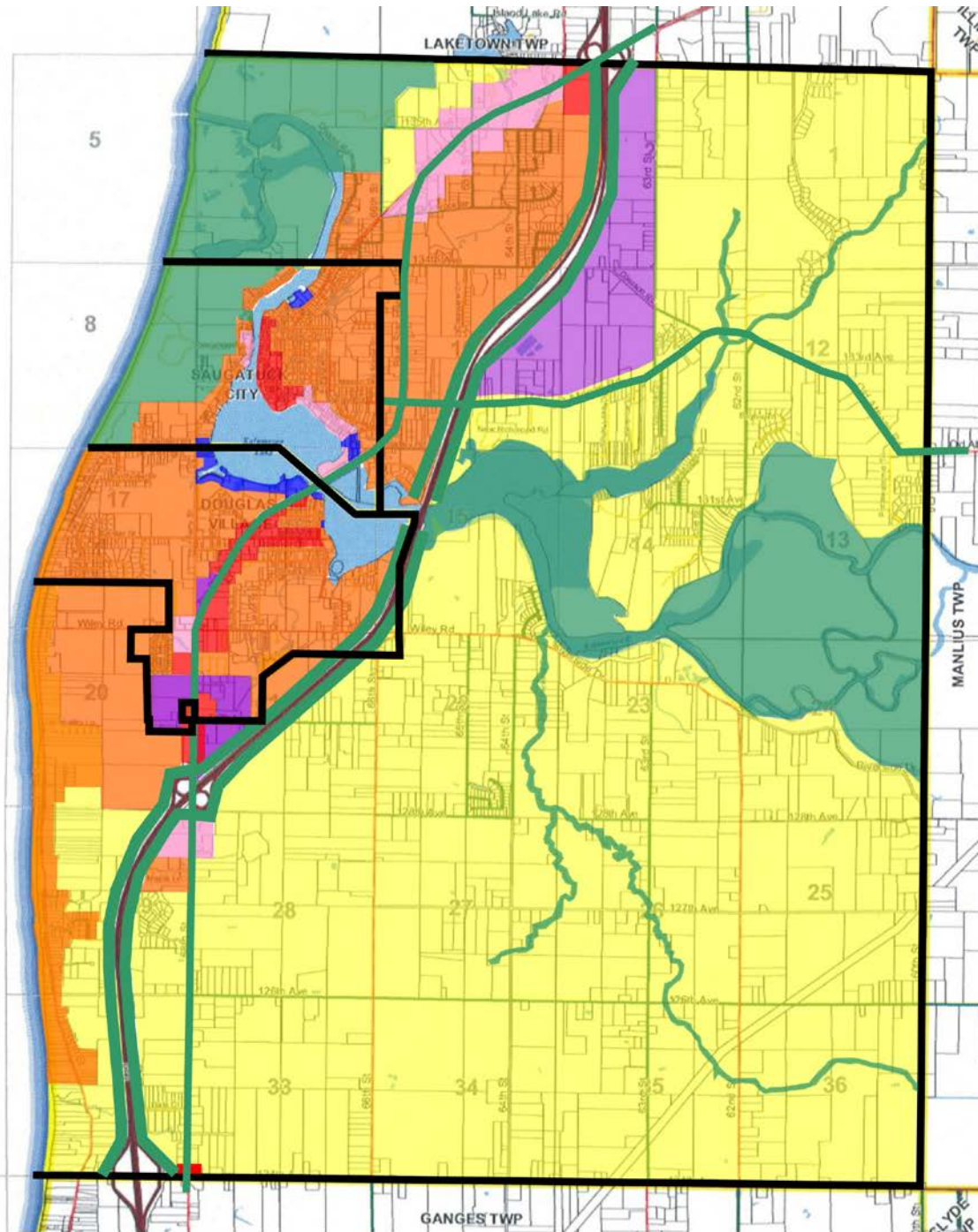
The Future Land Use Map accompanying this chapter depicts generalized future land use in the City of Saugatuck, the City of the Village Douglas, and Saugatuck Township and anticipates community land use needs for the next 25 years. These future land use arrangements are based on a variety of sources, including a survey of area leaders, the citizen opinion survey, a series of Town Meetings, joint workshops of members of all three planning commissions and governing bodies, and information in this Plan, with an emphasis on border issues. Proposed future land use is based on analysis of each existing land use, impacts of area trends, projected future land use needs if current trends continue, and the relationship of land use activities to the natural resource base. All proposals are intended to be consistent with the goals and policies presented in Chapter 1, which were originally created in 1989 with substantial public input and then updated as a part of this planning process. A few key planning and design principles were used to evaluate alternative land use arrangements. With slightly different trends and projections, application of the same principles could lead to different conclusions and differences would be related to the amount of particular land uses more than their location or relative relationships to adjoining uses. Likewise, there are many areas in which alternative land use arrangements would be satisfactory providing they remained in keeping with these basic planning principles. Consequently, it is crucial that this plan be regularly reviewed and updated at least once every five years to insure its continued relevance in planning for future land use needs.

PLANNING AND DESIGN PRINCIPLES

The Future Land Use Map (see Map 10-1) depicts generalized land use, which is implemented through the mapping of zoning districts and applied during the site plan review process. The following planning and design principles are the technical foundation in support of the proposed land use arrangements graphically depicted on the Future Land Use Map. These principles are consistent with the goals and policies in Chapter 1 and should remain the basis for reviewing any subsequent changes to the proposed Future Land Use Map. These planning principles are:

- Protection of public health and safety
- Conservation of natural resources
- Environmental protection
- Minimizing public service costs
- Efficiency and convenience in meeting land use needs
- Insuring compatibility between land uses.

Future Land Use Map



Legend

- | | |
|--|----------------------|
| Rural Low Density Single Family Residential/Agricultural | Commercial |
| Medium to High Density Single and Multi-Family Residential | Industrial |
| Mixed Use Residential/Commercial | Greenspace, Preserve |
| Waterfront Mixed Use | Highway Buffer |

Often a land use decision based on one principle also advances another. For example, prevention of filling or construction on floodplains protects public health and safety, conserves natural resources, protects the environment and minimizes public service costs. It may also create a valuable buffer or open space between uses and help insure compatibility.

Protection of Public Health and Safety

Key situations in which this principle is applied include:

- Avoiding construction in areas which present natural hazards. In the Tri-Communities, these include areas too close to the Lake Michigan shoreline at high risk from erosion from coastal wave action; floodplains; saturated soils and wetlands; soils not well suited for support of foundations or safe disposal of septic wastes; and steep slopes.
- Avoiding construction where an intensive land use activity is not adequately serviced by all weather public roads; and
- Avoiding construction in areas with soils contaminated by hazardous and/or toxic waste.

Conservation of Natural Resources

Failure to consciously protect nonrenewable natural resources exposes a community to unbridled destruction of those resources which are the foundation for an area's character and quality of life. Conservation of natural resources usually focuses on: land, water, minerals, certain soils (such as prime farmland), wetlands, sand dunes, areas supporting an abundance and diversity of wildlife, and unique forested lands. Areas where the land and the water meet are the most important. Indiscriminate land subdivision frequently reduces the size or alters the shape of land, thereby compromising the resource value and production potential of those lands. This occurs frequently in prime agricultural areas and once lost, these lands may never be reclaimed for food production purposes.

If widespread, such losses can dramatically alter the character of an area. These changes reflect lost opportunities – usually higher public service costs and gradual degradation of an area's tourism potential.

Environmental Protection

This principle aims at preventing pollution, impairment or destruction of the environment. While there is considerable overlap with natural resource conservation issues, environmental protection measures focus primarily on air and water quality, and the impact of activities where the water meets the land. Environmental quality is best preserved by planning for appropriate land use activities in and near sensitive environmental areas, and managing development accordingly.

Minimizing Public Service Costs

Public service costs may be minimized by encouraging new land uses where existing infrastructure is not used to capacity and where expansion can be most economically supplied. This also results in compact settlement patterns, prevents sprawl, and is favored by taxpayers because it results in the lowest public service costs both for construction and maintenance.

Efficiency and Convenience in Meeting Land Use Needs

To be efficient in meeting future land use needs, communities must make better use of existing infrastructure and plan for infrastructure expansion in a manner which keeps the

costs low and does not create huge areas where infrastructure will not be fully used for many years. It also means locating future land uses so that travel between activity centers is minimized. For example: building schools, neighborhood commercial activities, day care facilities, fire and police protection, etc. near the residential areas they serve. This saves municipal costs on initial road construction and future maintenance, reduces everyone's gasoline expenditures, and conserves fossil fuel supplies for future use.

Insuring Compatibility Between Land Uses

A central objective of land use planning is to locate future land uses so that they are compatible with one another. This prevents future nuisance situations between adjacent land uses, such as loud sound, ground vibrations, dust, bright lights, restricted air flow, shadows, odors, traffic, and similar impacts. A few obvious examples of incompatible land uses include factories, drive-in establishments, or auto repair facilities adjacent to single family homes. With proper planning, land uses can be tiered to buffer impacts and orderly development can occur. Examples include: commercial service establishments on highway frontage with backlot wholesale, storage, or office uses abutting a residential area; or single family residential uses adjacent to park and recreation areas.

DEVELOPMENT AND CONSERVATION AREAS

The Future Land Use Map for the Tri-Communities was prepared by first identifying conservation areas and then examining the suitability of remaining lands for various development purposes. Quality farmland is a diminishing resource, and as long as farmers wish to farm, farmland is desired to be protected from conversion to other uses or from impacts by other uses.

Other natural resource areas include sand dunes, wetlands, floodplains, streams, creeks and drains, the Kalamazoo River, Lake Kalamazoo, and areas at high risk of erosion along Lake Michigan. These areas are proposed for very limited future development in keeping with their fragility and importance in buffering Lake Michigan storms, filtering and storing water during periods of flooding, draining stormwater from land, providing habitat for a wide range of plants and animals, and for their wide ranging open space values. Destroying these resources would destroy the essential qualities which continue to attract residents and tourists to the area. If conserved and wisely used, waterways and farms will become a natural greenbelt system that continues to enhance the area for years to come. Local zoning ordinances should be reviewed to ensure they include adequate conservation practices.

PRESERVATION OF COMMUNITY CHARACTER

Community Character: The image of a community or area as defined by such factors as its built environment, natural features and open space elements, type of housing, architectural style, infrastructure, and the type and quality of public facilities and services. Moskowitz and Lindbloom. **Illustrated Book of Development Definitions**, Rutgers University, 2004, p 83.

The character of the Tri-Communities is largely a product of its natural environment, nestled on the shores of Lake Michigan and the Kalamazoo River and defined by steep, rolling dunes to the west and lush orchard country and farmland to the east. The area is best known as a resort community with a strong appeal to artists and artisans. The predominant land use in the Tri-Communities is agricultural (3,110 acres), followed by single family residential (2,242 acres). Prime farmland is generally concentrated in the

south central part of the Township. The rural areas of the Township are the southern agricultural, northeast, and riverfront-dunes areas. Residential areas in the Tri-Communities vary widely in character between the rural areas of the Township and the urbanized areas of Saugatuck and the City of the Village of Douglas. While single family homes are the predominant residential land use in the area, multiple-family housing can be found in both the City and in the Village.

RESIDENTIAL

Residential use will continue to be the predominant developed land use in the Tri-Communities. The existing residential areas in Saugatuck and the City of the Village of Douglas provide a rich and interesting mix of housing sizes, styles and ages. The challenge in the next twenty years will be maintaining the older housing stock and ensuring that the growing ranks of part-time residents and absentee owners does not result in housing deterioration. The preservation of neighborhood character should be done by maintaining scale, context and materials of the community.

Residential development in the Township is planned to be low-density single family homes with 1 or more acres per lot. This includes areas of the Township both north and south of the Kalamazoo River and all of the area east of the Interstate except for a large section of land north of Old Allegan Road on the west side of 63rd Street, which is planned for industrial use. Rural residential is planned at 2.5 acres or more.

New residential construction in the Township should be encouraged on soils capable of safe septic disposal. The best locations for concentrations of such housing are northeast of Saugatuck and southwest of the City of the Village of Douglas.

Downtown Saugatuck features larger, older homes that contribute to the downtown's charm, many of which have been converted to profitable bed and breakfast establishments. Most of the City's year-round residents live above the steep ridge ("the hill") which separates the waterfront area from the rest of the City. The Kalamazoo Lake shoreline is partially lined with condominiums along Lake Street, which has diminished the scenic view of the Lake over time. The policy is to encourage viewing easements and single family residences.

Approximately 25 blocks of long-established neighborhoods surround the center of the City of the Village of Douglas. There are also concentrations of homes along Lakeshore Drive, Campbell Road, Wiley Road and Water Street. Many of these established neighborhoods consist of 100-year old homes mixed with homes that are less than 30 years old. Some modern subdivisions on larger lots also exist on the west side adding to the rich variety of home sites in the Village.

As depicted on the Future Land Use Map, residential character in the City of Saugatuck and the City of the Village of Douglas is desired to remain medium to high-density single and multiple-family residential. This is largely characterized by 2-4 dwelling units per acre with a few pockets of lower and higher density. Permitted density is as established in each zoning ordinance.

COMMERCIAL

There will continue to be four primary commercial areas within the Tri-Communities. Commercial uses in downtown Saugatuck are primarily oriented to tourists and seasonal residents. Downtown Saugatuck will continue to serve as the major center for

commercial tourist activities. This should be encouraged. However, the downtown area should not be permitted to expand outside the area presently zoned for downtown commercial use. Appropriate measures should be instituted as necessary to mitigate impacts of the city center on adjoining residential areas. Downtown Saugatuck and the City of the Village of Douglas Village Center are characterized by compact building arrangements which limit parking spaces. Parking is problematic in downtown Saugatuck and in the City of the Village of Douglas Center, especially during peak tourism months. Heavy pedestrian traffic also exacerbates parking and access problems. The buildings and parking on many properties are poorly designed, so any opportunity to improve design, safety, and function should be seized.

Another commercial center is located along Blue Star through the City of the Village of Douglas. This commercial area along Blue Star from the bridge south to the freeway interchange should be encouraged to continue to redevelop with a primary focus on local commercial services, with some tourist oriented businesses, and a secondary focus on highway related uses near the interchange. The present commercial zoning of Blue Star south of the City of the Village of Douglas interchange should not be expanded, but small areas representing existing commercial establishments at the freeway and M-89 interchanges should continue to be recognized. Expanding commercial in these areas will, over time, only detract from more appropriate commercial areas in Saugatuck, the City of the Village of Douglas and along north Blue Star Highway.

Lastly, the area along north Blue Star Highway between Clearbrook Drive and the I-196 freeway interchange (Exit 41), which is presently developed for a variety of land uses, should be encouraged to be mixed use residential and commercial. Highway service-related commercial should serve the immediate interchange area. General business uses like drug stores, banks, and hardware stores should be encouraged in the general business area in Saugatuck and the City of the Village of Douglas and not in interchange areas. Allowing general business establishments to spread will increase the number and length of trips for local residents, will require all trips to be by motor vehicle, which causes a corresponding waste of fossil fuels, and it increases the potential for existing businesses in the City and Village to fail, since the "critical mass" of general business opportunities in a single location is not present.

INDUSTRIAL

A small number of industrial land uses exist in the Tri-Communities. Less than 1% of the total land area is devoted to industrial uses. A small industrial area exists along Blue Star in the City of the Village of Douglas near Exit 36 that should continue to be developed for light industrial uses. If a large light industrial concern, or industrial office facility were to be interested in a location in the area, the land between I-196 and 63rd Street at the northern freeway interchange (Exit 41) should be considered. This land is well-suited for light industrial activities as it could be efficiently served with sewer and water. Moreover, its location near the freeway would provide good visibility for the companies that locate there, along with easy access to the north interchange. Due to its proximity to the freeway, trucking could occur with little impact on residential and commercial uses. The Tri-Communities is located 180 miles from Detroit, 150 miles from Chicago and 36 miles from Grand Rapids along a major interstate highway. This is an advantageous location for small scale, light industrial development.

AGRICULTURAL

In the agricultural areas of the Township, farmers are encouraged to farm their land as long as they desire to do so. Should farmers decide to stop farming and develop their land, low density single family residential homes in clusters with at least 50% permanently preserved open space should be encouraged to preserve the rural, low density character of the Township. Agriculture is a major contributor to the economy and rural character of the Tri-Communities, providing a contrast with the more intensely developed areas of Saugatuck and the City of the Village of Douglas. Agriculture should be continued as long as it is economical to do so.

WATERFRONT MIXED USE

Most of the non-wetland shoreline in Saugatuck and the City of the Village of Douglas has been developed. The balance is in private ownership. The waterfront should continue to be maintained and where necessary, redeveloped with a mix of single and multiple-family residential uses along with waterfront-related commercial developments such as marinas and other ship/shore activities. Condominiums line the shore of Kalamazoo Lake along Lake St. and block a scenic view of the lake. New development along the shore should preserve a view of the lake from the public right-of-way and consist of single family residences. Further, waterfront zoning should be consistent across all three governments.

Much of the City's downtown waterfront has an excellent system of interconnected public and private walkways providing shoreline access. This magnifies the attraction of Saugatuck as a tourist haven. Public boat access is more limited, and parking for car and boat trailers is scarce. Private marina space is also limited and expensive. Additional public waterfront properties should be acquired as pocket parks to enhance the recreational potential of the water. Mooring of large vessels along the Kalamazoo Lake shoreline should be prohibited, as this would block the limited public access to the waterfront.

GREENSPACE AND PRESERVE

Since the Tri-Community Plan was updated in June of 2005 there have been several ownership changes of the former Denison property in Section 3 and 4 of the northwest corner of the Township. The property was purchased by Aubrey McClendon through his entity Singapore Dunes LLC in 2006. The part of the property south of the Kalamazoo River was sold by him in the Fall of 2010 to the City of Saugatuck, with the assistance of the West Michigan Land Conservancy intended to be used as a public area for low-intensity recreational use that will preserve the dune ecosystem and related areas in a natural state.

HIGHWAY BUFFER

The Tri-Community area is unique in that it is one of the few areas in Michigan that still has a substantial amount of natural vegetation lining I-196 and the north section of the Blue Star Highway from the bridge to Exit 41. These forest stands provide noise buffering for abutting land uses and provide for an aesthetically pleasing highway that enhances the character of the community. Retaining and protecting this natural highway buffer even as adjacent properties are developed should be strongly encouraged.

Chapter 11

ZONING PLAN

INTRODUCTION

This Chapter opens with a general description of a zoning plan. It is followed by a brief explanation of the relationship between this Joint Master Plan and the zoning ordinances of the City of Saugatuck, Saugatuck Township, and the City of the Village of Douglas. The intent and key dimensional standards of the zoning districts in each zoning ordinance are briefly described.

WHAT IS A ZONING PLAN?

A “zoning plan” is another term for a “zone plan” which is used in the Michigan planning and zoning enabling acts. Section 1(a) of the Township Planning Act, PA 168 of 1959, as amended, requires that the comprehensive plan prepared under that act serve as the basis for the zoning plan. Section 7 of the Township Zoning Act, PA 184 of 1943, as amended, requires a zoning plan be prepared as the basis for the zoning ordinance. The zoning plan identifies the zoning districts and their purposes, as well as the basic standards proposed to control the height, area, bulk, location, and use of buildings and premises in the Township. It must be based on an inventory of conditions pertinent to zoning in the township and the purposes for which zoning may be adopted (as described in Section 3 of the Township Zoning Act). Section 6 of the Municipal Planning Act, PA 285 of 1931, as amended, calls for a plan that includes a zoning plan for the control of height, area, bulk, location and use of buildings and premises in the City or Village. Section 1 of the City and Village Zoning Act, PA 207 of 1921, as amended, requires that land development regulations and zoning districts created through the act be made in accordance with a plan. This Plan fulfills that purpose for the Cities and Township.

RELATIONSHIP TO JOINT MASTER PLAN

This Joint Master Plan sets forth the vision, goals and policies for growth and development in the City of Saugatuck, Saugatuck Township, and the City of the Village of Douglas for approximately the next twenty years. It includes a specific strategy for managing growth and change in land uses and infrastructure in the Tri-Communities over this period, and will be periodically reviewed and updated at least once each five years. This chapter presenting the Zoning Plan, along with the rest of the relevant parts of this Master Plan, is intended to guide the implementation of and future changes to the zoning ordinances of each jurisdiction. Existing permitted uses of land, including density, setbacks and other related standards are as established in each zoning ordinance.

DISTRICTS AND DIMENSIONAL STANDARDS

Following are the general purposes and characteristics of zoning within the City of Saugatuck, Saugatuck Township, and the City of the Village of Douglas. The specific purposes of each jurisdiction’s individual zoning districts and permitted land uses are listed in the specific district provisions of their respective zoning ordinances. The Section references indicate where detailed ordinance language for each district is located within each zoning ordinance.

CITY OF SAUGATUCK

Commercial Districts

The following zoning districts are considered “commercial districts.”

Section 155.023	LI-1 Blue Star District
Section 155.024	C-1 City Center Commercial District
Section 155.037	C-4 Resort District
Section 155.038	C-2 Water Street Commercial District
Section 155.039	C-2 Water Street East District
Section 155.040	C-2 Water Street North District
Section 155.041	C-2 Water Street South District

The basic purpose of these districts is to provide opportunities for regulated commercial or office activities serving both local and tourist markets. Minimum lot sizes range from one-quarter acre to one acre in size in the LI-1 Blue Star District, which serves as a transitional zone between residential and commercial districts. The C-1 City Center Commercial District is designed to promote and preserve the Central Business District character of the city and permits intense retail and commercial uses. The C-4 Resort District provides compatible zoning for existing and future hotels, motels, and bed and breakfasts. The C-2 Water Street Commercial Districts provide an area for waterfront retail and commercial land use, provide for a less intense commercial use than the City Center District and promote visual access to the Kalamazoo River.

Residential Districts

The following zoning districts are considered “residential districts.”

Section 155.025	C-4 City Center Residential District
Section 155.026	R-1 Community Residential District
Section 155.030	R-2 Lake Street District
Section 155.031	R-1 Maple Street (MS) District
Section 155.033	R-1 Peninsula North Duneside District
Section 155.034	R-1 Peninsula North (Riverside) District
Section 155.035	R-1 Peninsula South District
Section 155.036	R-1 Peninsula West District
Section 155.042	R-3 Multi-Family Residential District

The principal purpose of these districts is to provide for a range of residential dwelling types at various densities within individual zones tailored for specific uses. Minimum lot sizes range from 8,712 square feet to 21,780 square feet. The C-4 City Center District is a transitional zone intended to serve as a buffer between the high intensity City Center Commercial District and the low intensity Community Residential zone. It is not intended to be static but rather to adjust with the development needs of the community. The R-1 Community Residential District is designed to protect and promote low density single-family residential uses and development in the city. The objective of the R-2 Lake Street District is to enhance low density single-family land use and promote visual access to the Kalamazoo River. The R-1 Maple Street District promotes single-family residential land use in a low density setting and preserves the rural character of the district and its natural resources. The R-1 Park Street North and South Districts are designed to preserve and protect residential water front land uses along Kalamazoo Lake and River, while the R-1 Park Street West District protects the natural environmental features of the area such as dunes and open spaces through the encouragement of larger lots. Density

in this District is intended to be less dense than other residential districts in the city to preserve the character of the land in the District.

Summer Resort and Park Association District

The following zoning district is considered a “unique residential district.”

Section 154.028 Summer Resort and Park Association District

The purpose of the Summer Resort and Park Association District is to provide for summer resort and park associations established under Michigan Act. 230 of 1987 as amended, which existed prior to September 21, 1902. The district consists of a 26.5 acre parcel located in the southwest corner of the City containing 25 residential structures. All access roads within the development are private, and individual residential dwellings are owned as a ‘share’ rather than a recognized parcel.

Cultural/Community District

The following zoning district is considered a “cultural district.”

Section 155.029 Cultural/Community District

The purpose of this district is to provide for development of cultural and community facilities. The range of uses provided for by this district is intended to further enhance the social, cultural and economic synergy of the City’s downtown area. Any development in this district must include Community Center and Cultural/Performing Arts components.

Conservation and Recreation District

The following zoning district is considered a “conservation and recreation district.”

Section 155.027 Conservation and Recreation District

This District is designed to maximize preservation of existing environments by permitting only low density residential uses. It is a restrictive zone, intended to permit development after in-depth review in order to protect and enhance the natural resources, amenities natural habitats of wildlife, public recreation areas and to protect public health, safety and welfare. The purpose of this District is to provide a natural undeveloped area for the benefit of public recreation and utilization by large numbers of residents and visitors. The minimum lot size for single family residences is 2 acres; however, the maximum lot coverage is 15%.

At the time this Plan was being formulated, the City Planning Commission was going to prepare a special subarea plan for the Oxbow Peninsula. Some changes to this Plan and to the City Zoning Ordinance may be necessary at the conclusion of the preparation of that Plan.

Mixed Use District

The following zoning district is considered a “mixed use district.”

Section 155.032 Neighborhood Marine District

The purpose of the Neighborhood Marine District is to promote utilization of the waterfront property with mixed residential and commercial land uses. The goal of the District is to encourage larger lot development in order to preserve and protect visual access to the waterfront. Land uses in the District that emphasize water access and usage are desired after appropriate review. The minimum lot area within this district is 17,424 square feet.

Table 11-1
City of Saugatuck
Zoning District Regulations

	Minimum Lot Area	Minimum Lot Width	Maximum Lot Coverage	Front Setback	Side Setback	Rear Setback	Maximum Building Height
R4 City Center Res.	8,712 s.f.	66 ft.	25%	25 ft.	7 ft.	10 ft.	28 ft.
R1 Community Residential	8,712 s.f.	66 ft.	25%	25 ft.	7 ft.	10 ft.	28 ft.
R2 Lake Street	8,712 s.f.	66 ft.	25%	25 ft.	10 ft.	25 ft.	28 ft.
R1 Maple Street	15,000 s.f.	80 ft.	25%	50 ft.	10 ft.	10 ft.	28 ft.
R1 Park Street North	8,712	66 ft.	25%	50 ft.	10 ft.	10 ft.	28 ft.
R1 Park Street South	15,000 s.f.	100 ft.	25%	50 ft.	10 ft.	10 ft.	28 ft.
R1 Park Street West	21,780	100 ft.	25%	50 ft.	10 ft.	25 ft.	28 ft.
R3 Multi-Family Residential	15,000 s.f.	80 ft.	25%	50 ft.	10 ft.	10 ft.	28 ft.
LI-1 Blue Star	1 acre	150 ft.	25%	50 ft.	15 ft.	25 ft.	35 ft.
C1 City Center Commercial	N/A	66 ft.	N/A	0 ft.	0 ft.	0 ft.	28 ft.
C4 Resort	15,000 s.f.	66 ft.	50%	15 ft.	10 ft.	10 ft.	28 ft.
C2 Water Street	N/A	132 ft.	N/A	0 ft.	0 ft.	15 ft.	28 ft.
C2 Water Street East	N/A	66 ft.	N/A	0 ft.	7 ft.	10 ft.	28 ft.
C2 Water Street North	N/A	66 ft.	N/A	0 ft.	0 ft.	0 ft.	28 ft.
C2 Water Street South	N/A	132 ft.	N/A	0 ft.	10 ft.	15 ft.	28 ft.
Conservation & Recreation	2 acres	200 ft.	15%	100 ft.	50 ft.	50 ft.	28 ft.
Cultural/Community	50,000 s.f.	198 ft.	60%	25 ft.	East-10 ft. West-0 ft.	0 ft.	28 ft.
Neighborhood Marine	17,424 s.f.	132 ft.	35%	25 ft.	10 ft.	15 ft.	28 ft.

s.f. = square feet, ft. = feet

SAUGATUCK TOWNSHIP

Rural Districts

The following zoning districts are considered “rural districts.”

Section 40-136	A-1 Agricultural Zoned District
Section 40-181	A-2 Rural Open Space Zoned District

The A-1 Agricultural Zoned District is that area of the township where farming, dairying, forestry operations and other similar rural-type land uses exist and should be preserved and/or encouraged. Large vacant areas, fallow land and wooded areas are included. The A-2 Rural Open Space Zoned District is that area of the township where crop farming and forestry operations and other similar rural uses exist and should be preserved and/or encouraged, while providing opportunities for residential development at overall densities which reflect a more rural living environment than may be provided in other residentially zoned districts in the township. The minimum lot area for parcels in both districts with dwelling units or non-farming units is 2 ½ acres.

Residential Districts

The following zoning districts are considered “residential districts.”

Section 40-226	R-1 Residential Zoned District
Section 40-271	R-2 Riverside Residential Zoned District
Section 40-316	R-3 Lakeshore Residential Zoned District
Section 40-328	R-3B Lakeshore Transition Zoned District

The R-1 Residential Zoned District is that area of the township where predominantly single- and two-family dwellings, together with a minimum of other residentially related facilities and activities primarily of service to the residents in the area, should be preserved and/or encouraged. The R-2 Riverside Residential Zoned District is that area of the township bordering the Kalamazoo River and its tributaries where controls are placed upon the use and development of areas adjacent to such river and its tributaries within the township and upon construction activity within such river and its tributaries. The R-3 Lakeshore Residential Zoned District is that area of the township where controls are placed upon the use and development of areas adjacent to the shoreline of Lake Michigan so as to preserve the shoreline as a natural resource to prevent and/or control erosion and to maintain the aesthetic qualities of the area. The new R-3B Lakeshore Transition Zoned District accommodates moderate densities of new residential growth and requires development to incorporate significant elements of preserved open space. Minimum lot sizes range from half an acre to one and a half acres within the Township’s residential districts.

Commercial Districts

The following zoning districts are considered “commercial districts.”

Section 40-366	C-1 General Commercial Zoned District
Section 40-416	C-2 Local Commercial Zoned District
Section 40-466	C-3 Interchange Commercial Zoned District

The C-1 General Commercial Zoned District was established to accommodate businesses desiring to take advantage of the area's seasonal traffic patterns. It provides diverse corridor locations for businesses that cater directly to tourism and peak travel associated with an increased summertime population. The C-2 Local Commercial Zoned District was established to provide areas in which the Principal Uses of the land are

devoted to businesses serving the day-to-day needs of the local, non-transient population. This district allows a wide range of service and retail uses, but is not designed to support large commercial operations or those specifically oriented toward the tourist or regional trade. The C-3 Interchange Commercial District is located near the freeway interchanges along major arterials. It was established to provide areas for specialized sales, service and hospitality businesses that cater to highway travelers. The C-3 Districts primarily serve regional markets and are vehicle oriented in terms of their dependence upon high visibility and proximity to automobile traffic. Minimum lot sizes range from 65,000 square feet to 120,000 square feet.

The Township Planning Commission will review the current area zoned commercial on north Blue Star Highway with an eye to possibly making the following changes:

- possibly adjusting the range of commercial uses permitted so as to not unintentionally promote duplication of businesses and services already adequately being provided in the City or Village.
- possibly adjusting provisions that permit mixed commercial and residential use to provide a wider range of mixed uses and encourage more residential and less commercial use than present zoning permits.

Industrial District

The following zoning district is considered an “industrial district.”

Section 40-521 I-1 Industrial Zoned District

The I-1 Industrial Zoned District is designed to accommodate those manufacturing, assembling and fabricating businesses and related commercial activities or uses which are not likely to cause adverse effects or nuisance to adjoining properties. The minimum lot size for the I-1 district is 30,000 square feet.

Table 11-2
Saugatuck Township
Zoning District Regulations

	Minimum Lot Area	Minimum Lot Width	Maximum Lot Coverage	Front Setback	Side Setback	Rear Setback	Maximum Building Height
A-1 Agricultural	2 ½ acres	165 ft.	30%	40-50 ft.	10-15 ft.	30-50 ft.	35 ft.
A-2 Rural Open Space	2 ½ - 5 acres	150 ft.	30%	40-50 ft.	10-15 ft.	30-50 ft.	35 ft.
R-1 Residential	20,000 – 40,000 s.f.	100-125 ft.	25%	40-50 ft.	10-15 ft.	30-50 ft.	35 ft.
R-2 Riverside Residential	30,000 – 65,000 s.f.	100-150 ft.	25%	40-50 ft.	10-15 ft.	30 ft/75 ft. from River	35 ft.
R-3 Lakeshore Residential	20,000 s.f.	100 ft.	25%	40-50 ft.	10-15 ft.	30 ft.	35 ft.
R-3B Lakeshore Transition Residential	30,000 – 65,000 s.f.	100-150 ft.	25%	40-50 ft.	10-15 ft.	30-50 ft.	35 ft.

C-1 General Commercial	85,000 s.f.	250 ft.	40%	70 ft.	20 ft.	20-50 ft.	35 ft.
C-2 Local Commercial	65,000 s.f.	200 ft.	40%	70 ft.	20 ft.	20-50 ft.	35 ft.
C-3 Interchange Commercial	120,000 s.f.	300 ft.	40%	70 ft.	30 ft.	30-50 ft.	35 ft.
I-1 Industrial	30,000 s.f.	100 ft.	50%	75 ft.	15 ft.	25 ft.	35 ft.

s.f. = square feet, ft. = feet

CITY OF THE VILLAGE OF DOUGLAS

Residential Districts

The following zoning districts are considered “residential districts.”

Section 4.01	R-1 Residential District
Section 5.01	R-2 Residential District
Section 6.01	R-3 Neighborhood Conservation District
Section 7.01	R-4 Harbor Residential District
Section 8.01	R-5 Multiple Family District
Section 9.01	R-6 Mobile Home Park District

The principal purpose of these districts is to provide for a range of residential dwelling types at various densities within individual zones tailored for specific uses. Minimum lot sizes range from 7,920 square feet to 20,000 square feet. Generally, where public sewer service is provided, the minimum lot size is 7,920 square feet; otherwise, minimum lot sizes range from 15,000 square feet to 20,000 square feet. The general intent of these districts is to provide opportunities for new residential development in a manner consistent with existing residential uses in the area, and which makes efficient use of Village sewer and water service, and that preserves the traditional character of the Village.

Commercial Districts

The following zoning districts are considered “commercial districts.”

Section 10.01	C-1 Village Commercial District
Section 10.10	C-1A Village Center Commercial District
Section 11.01	C-2 General Commercial District
Section 11.10	C-2A Special Commercial District

The C-1 Village Commercial District is intended to provide for retail and service establishments on Center Street west of Blue Star Highway and is designed to promote automobile-oriented shopping with on-site parking. The C-1A Village Center Commercial District provides for small retail and service establishments designed to promote convenient pedestrian shopping and stability of retail development by encouraging a contiguous frontage and preserving the traditional character of the Village center. The C-2 General Commercial District provides for retail and service establishments which meet the general consumer needs of the Village, while the C-2A Special Commercial District

provides for commercial uses along with highly restricted light industrial uses. Minimum lot sizes range from 4,000 square feet to 30,000 square feet.

Industrial District

The following zoning district is considered an “industrial district.”

Section 12.01 L-1 Light Industrial District

This District provides for a variety of light industrial uses, including manufacturing, processing and assembling establishments. The basic purpose of the L-1 District is to provide suitable locations for high tech and light industrial development with minimum lot sizes of one half acre.

Public Lands District

The following zoning district is considered a “public lands district.”

Section 13.01 PL Public Lands District

The purpose of the Public Lands District is to provide adequate land resources for the purposes of administering and performing necessary public services by the Douglas and other public agencies. Land in this zoning district is intended solely for public buildings and uses. The minimum lot size is 20,000 square feet.

Table 11-3
City of the Village of Douglas
Zoning District Regulations

	Minimum Lot Area	Minimum Lot Frontage	Max. Lot Coverage	Front Setback	Side Setback	Rear Setback	Max. Building Height
R-1 Residential	12,000 s.f w/ sewer; otherwise 15,000 s.f	100 ft.	35%	35 ft.	7 ft./ 18 ft. comb	25 ft.	28/35 ft.*
R-2 Residential	7,920 s.f w/ sewer; otherwise 15,000 s.f	75 ft.	35%	35 ft.	7 ft./ 18 ft. comb	25 ft.	28/35 ft.*
R-3 Neighborhood Conservation	SF: 7,920 s.f w/ sewer; 15,000 s.f w/o sewer TF: 15,000 s.f	SF: 66 ft. TF: 100 ft.	35%	25 ft.	7 ft./ 15 ft. comb	25 ft.	28/35 ft.*
R-4 Harbor Residential	SF: 7,920 s.f TF: 10,000 s.f MF: 20,000 s.f	SF: 66 ft. TF: 80 ft. MF: 100 ft.	35%	25 ft.	SF: 7 ft./15 ft. TF: 7 ft./15 ft. MF: 20 ft./20 ft.	35 ft.	28/35 ft.*
R-5 Multiple Family	SF: 7,920 s.f TF: 15,000 s.f MF:20,000 s.f	SF: 66 ft. TF: 80 ft. MF: 100 ft	35%	SF: 35 ft. TF: 35 ft. MF: 25 ft.	SF: 7 ft./18 ft. TF: 7 ft./15 ft. MF: 20 ft./25 ft.	SF: 25 ft. TF: 25 ft. MF: 50 ft.	28/35 ft.*
R-6 Mobile Home Park	Min. 10 acres per park	N/A	60%	N/A	N/A	N/A	28/35 ft.*
C-1 Village Commercial	6,600 s.f.	50 ft.	80%	25 ft.	5 ft./ 10 ft. comb	5-25 ft.	28/35 ft.*
C-1A Village Center Commercial	4,000 s.f.	20 ft.	80%	0 ft.	5 ft./ 10 ft. comb	5-25 ft.	28/35 ft.*
C-2 General Commercial	½ acre	100 ft.	50%	10 ft.	5 ft./ 10 ft. comb	5-25 ft.	28/35 ft.*
C-2A	30,000 s.f.	150 ft.	50%	25 ft.	15 ft./	25-35 ft.	28/35 ft.*

Special Commercial					25 ft. comb		
L-1 Light Industrial	½ acre	100 ft.	50%	25 ft.	15 ft./ 25 ft. comb	15-25 ft.	45 ft.
PL Public Lands	20,000 s.f.	100 ft.	35%	40 ft.	15 ft.	25 ft.	28/35 ft.*

SF = Single Family, TF = Two Family, MF = Multi-Family, s.f. = square feet, comb = combined, Ft. = feet

*MAX BUILDING HEIGHT IS 28 FT. MEASURED FROM THE AVG. GRADE OF THE FRONT ELEVATION AND NOT TO EXCEED 35 FT. WHEN MEASURED FROM THE AVERAGE GRADE OF THE STRUCTURE.

PLEASE REFER TO **ZONING ORDINANCES** FOR DETAILS WHICH MAY AFFECT THE APPLICATION OF ABOVE STANDARDS.

Chapter 12

INTERGOVERNMENTAL COOPERATION

INTRODUCTION

This chapter briefly examines several intergovernmental cooperation issues. First are issues related to the Tri-Communities. Second are issues related to land use policies of jurisdictions abutting Saugatuck Township.

TRI-COMMUNITY INTERGOVERNMENTAL COOPERATION

This Plan serves to guide the City of Saugatuck, City of Village of Douglas, and Saugatuck Township in their efforts to manage land, cultural and community resources. All three communities participated in creation of the Plan; all three will benefit by implementing the Plan; and all three communities are responsible for the Plan's implementation. Following are five recommendations to guide implementation.

1. The completion of this second joint Plan recognizes the importance of the milestone in the intergovernmental relations between Saugatuck, the City of the Village of Douglas and Saugatuck Township that began with the creation of the first joint Plan in 1989. However, it should also be viewed as only one stage in an ongoing planning process. Constantly changing social and economic trends will require periodic updating or amendments to this Plan, which should be revisited at least every five years. When updated more frequently, the effort is usually not as extensive. Revisions to the Future Land Use Map in Chapter 10 should be made whenever it no longer serves as a useful guide and support for land use decision making. The same is true of the policies portion of the Plan.
2. While the Tri-Community Planning Committee that was set up to develop this Plan expects to disband upon completion of the Plan, it is recommended that a Joint Planning Committee (3 representatives from each community) be established to serve as a coordinating and oversight body to insure that the proposals in this Plan are implemented and that any actions of a single entity contrary to this Plan do not go unchallenged. The Harbor Authority or Waterfront Committees should be formally included in the arrangement; otherwise, their functions should be absorbed by the Joint Planning Committee. The Joint Committee should meet at least quarterly or at the call of the chairperson and report its minutes promptly to the governing body and Planning Commission of each member jurisdiction
3. This Plan is intended to serve each jurisdiction singly and the three communities together. The credibility of this Plan will depend on whether the subsequent actions of individual local governments are consistent with it. It could and should be modified as necessary upon approval by the planning commission and the governing body proposing modifications relating to provisions affecting future land use, planning, and zoning located within the geographical area of that governmental entity. All amendments and changes of this Plan should be reviewed by the Joint Planning Committee and the individual Planning Commissions to provide input, until such time as a Joint Planning Commission is formed—if the communities do so.

Photo 12-1

The Spirit of Cooperation is Important to the Tri-Communities



Source: Felicia Fairchild, Saugatuck Douglas Visitors and Convention Bureau

In the end however, since the individual communities will carry the primary burden of implementation, it is important to review the basic tools they have to undertake the substantial tasks laid out in this Plan. In addition to regulatory tools, capital facilities, and management tools, there are also a host of funding sources that may be available to assist with particular projects. It is almost always safe to say that joint proposals involving two or more jurisdictions have a greater chance of receiving funding in competitive grant situations than any one of the communities alone. As a result, the Tri-Communities are encouraged to work together in their efforts to secure financial assistance to implement the proposals in this Plan.

4. Three separate jurisdictions control land use in the Tri-Community area and now that it is legal to create a Joint Planning Commission (PA 226 of 2003, MCL 125.131 et seq.) this Plan recommends seriously exploring the pros and cons of creating a Joint Planning Commission and single Zoning Ordinance for the Tri-Communities. Until this is thoroughly examined, there will only be supposition and conjecture to guide discussion on this important topic. Perhaps there will be cost and time efficiencies to both communities and applicants, perhaps there won't, perhaps there will be no loss of "local control," perhaps there will. These are important issues that deserve a careful examination as one of the first steps in implementing this Plan. In 2008 an examination of forming a Joint Planning Commission and single Zoning Ordinance for the Tri-Communities was terminated upon request of the City of the Village of Douglas.

5. The 2004 public opinion survey revealed a slight majority would favor creation of a single consolidated unit of government if there were demonstrable fiscal benefits. In 1979, a ballot measure to consolidate Saugatuck and the City of the Village of Douglas was presented to votes. The measure passed in Saugatuck (132 yes, 88 no) but not in Douglas (47 yes, 155 no). In 2013, 32 years later, consolidation was again on the ballot. The measure failed in both Saugatuck (192 yes, 265 no) and Douglas (226 yes, 385 no). It appears that regardless of potential financial gain or less, most voter were concerned about their 'sense of place' and reluctance to venture into the unknown.

Since 1990, several studies have been done regarding the consolidation of the City of

Saugatuck, the City of the Village of Douglas, and Saugatuck Township:

- In 1990, Dr. Ralph Chandler of Western Michigan University wrote an extensive paper on the ‘Options for Municipal Organization in the Tri-Community Area: The City of Saugatuck, Saugatuck Township, and the Village of Douglas.’
- In 2008, Plante Moran did a study contracted by RJ Peterson and titled “Consolidated Business Case: City of the Village of Douglas, City of Saugatuck, Saugatuck Township.”
- In 2009, Eric Scorsone of Michigan State University wrote a paper “City of Saugatuck-City of the Village of Douglas-Saugatuck Township: An Analysis of the Economic and Financial Impact of Political Consolidation.”
- In 2013, Eric Lupher of the Citizen’s Research Council of Michigan did a study on “Consolidation Issues Associated with the Proposed Merger of The City of the Village of Douglas and the City of Saugatuck.”

All the studies concluded that consolidation would result in cost savings, although none of the studies was an in-depth analysis of actual city finances or services. All the studies may be found on file at the Saugatuck-Douglas District Library.

Given that the consolidation discussion has been going on for 35 years, and that both Cities voted against consolidation in the 2013 vote, we conclude that the tri-communities should remain three separate jurisdictions that work together to deliver the best possible services for their residents.

ADJOINING JURISDICTION ISSUES

In addition to cooperation among the Tri-Communities, there will need to be continued cooperation with adjoining jurisdictions. The Tri-Communities are surrounded by Laketown Township to the north, Manlius Township to the east and Ganges Township to the south. Filmore Township is diagonally northeast of Saugatuck Township and Clyde Township diagonally to the southeast. Lake Michigan is to the west of the Tri-Communities. The above-mentioned communities were each asked to provide master plans and zoning ordinances at the start of the Plan update process and the documents provided were reviewed for content that might affect the Tri-Communities. Future Land Use Plans from the communities that provided them date from the early 1990s. Filmore Township and Ganges Township did not provide copies of their plans or zoning ordinances. A composite Allegan County zoning map prepared by the Allegan County Geographic Information System (GIS) Department was used to evaluate the potential for land development in those communities.

All of the surrounding townships are relatively undeveloped and rural, especially in the border areas. All of the plans provided by neighboring jurisdictions cite the preservation of rural character as a primary goal, which is also a goal of the Tri-Communities. The adjacent communities state in their plans that they intend to accomplish this goal through zoning to limit residential density to a range of from about 1 dwelling unit per acre to 1 dwelling unit per nearly 40 acres, and by strictly limiting the amount of commercial and industrial development permitted. The adjacent community plans generally express the belief that commercial and industrial land uses do not contribute to rural character, do not protect environmental quality, and that existing and planned infrastructure could not accommodate it. Unfortunately, full development at 1 dwelling unit per acre also does not retain the degree of naturalness that residents of surrounding townships describe as rural character, and so dramatic change can occur around Saugatuck Township with the

settlement of large areas at a higher-than-envisioned density. This will also place further public service demands on the Tri-Communities as those populations travel to or through Saugatuck/Douglas for shopping and recreation, and will further diminish the natural regional landscape character residents of the Tri-Communities favor. Adjacent communities may want to follow the lead of Saugatuck Township in performing a buildout analysis to examine the relationship between existing zoning and the likely as opposed to desired ultimate population of the community. This may lead to further refinement of zoning and related policy that does result in greater preservation of rural character. Alternatively, they may wish to encourage landowners in their community to participate in Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR) programs, or other conservation easement programs.

The preservation of agriculture as an economic activity was also a goal of several of the surrounding communities. It is uncertain if, in the years since the plans were prepared, preservation of agricultural activity remains as important. In Saugatuck Township, public sentiment appears to be shifting from the protection of agriculture to the protection of open space, whether or not that includes agricultural activity. It is possible that residents in adjoining jurisdictions may also have shifted their preference in a similar direction, although perhaps to a lesser degree as agriculture appears to remain more active in the adjacent communities. Agricultural activity needs to be examined in the larger regional context, as Allegan County is an important agricultural producer in Michigan.

Portions of the Allegan State Game Area lie about a mile east from Saugatuck Township, and about two miles south, with the remainder of it extending up to a dozen miles beyond to the east and southeast. The Game Area is protected, undeveloped land in public ownership, managed for public recreation, including hunting, fishing, wildlife viewing and hiking. The Kalamazoo River passes through the Game Area before reaching the Tri-Communities. The Game Area is an important regional open space that also serves the Tri-Communities, and could be a valuable part of a regional greenspace system and a popular destination for trail connections. As the Tri-Communities plan for greenspaces and bicycle trails they should consider links to the Game Area.

While surrounding communities generally discourage industrial and commercial uses, there are a few industrial sites adjacent to Saugatuck Township. One is in Section 12 of Manlius Township and the other is along M-89 in Ganges Township. Immediately across M-89 from Saugatuck Township in Ganges Township, there is significant road frontage zoned industrial and commercial, which could, if fully developed as zoned, impact the land in the southern portion of Saugatuck Township that is zoned very low density residential. Saugatuck Township should encourage Ganges Township to guide development of those properties in a manner that lessens the impact on Saugatuck Township, or to reduce the area zoned industrial and commercial. As zoned, a strip of industrial and commercial uses could develop, which could create traffic safety and congestion problems along M-89. Clustered commercial and industrial development, with managed access could result in development of that area of Ganges Township with fewer negative impacts on both communities.

Photo 12-2
**Kalamazoo River Water Quality is a
Shared Responsibility of the Tri-Communities
and Other Adjacent Jurisdictions**



Source: Aaron Sheridan

The Kalamazoo Lake Water and Sewer Authority has an agreement with Laketown Township to provide public water service in excess of what it currently receives. While water lines extend only a short distance into Laketown Township, the water capacity available to Laketown Township could result in a greater amount or density of development just across the boundary from northern Saugatuck Township than would be possible without this service. If it is determined to be in the best interest of the Tri-Communities, all members of the KLWSA may work together with Laketown Township to make sure that the extra capacity in the KLSWA treatment facility may be available to Laketown that will be used ways that compliment land uses in the northern end of Saugatuck Township.

The Kalamazoo River flows into the Tri-Communities from Manlius Township and many other communities upstream. Activities in the Kalamazoo River watershed influence the quality of river water when it reaches Saugatuck and the City of the Village of Douglas. While parts of the Kalamazoo River are designated as Natural River, and sections flow through the Allegan State Game Area, both of which provide some degree of protection for the River, past activities and a lack of clean-up of polluted sediments lowers the water quality of the River in the Tri-Communities. The Tri-Communities should take an active role in continuing to push for proper clean-up of the upper reaches of the Kalamazoo River, as well as working with those communities to implement best management practices that would help prevent sedimentation of the River and other types of pollution. The Tri-Communities may also want to seek the reestablishment of a water quality monitoring station in Kalamazoo Lake. Since a lack of funding for such a station is likely why it was removed, the Tri-Communities may want to consider funding their own monitoring station in order to keep track of potential contaminants that come from upstream.

Chapter 13

STRATEGIES FOR IMPLEMENTATION

INTRODUCTION

The previous twelve chapters have presented background information, analysis, goals, and policies, associated with a generalized Future Land Use Map to guide decisions on land use, capital improvement and intergovernmental issues for the next twenty years. There are many explicit and implied recommendations. There is more to pursue than can be undertaken all at once. Yet, the initiatives proposed in this Plan will not implement themselves. It will take continued support and commitment for many years.

The first section of this chapter examines ingredients for successful Plan implementation. The second section focuses on key recommendations that should be given priority for implementation. There are also some policies that are much more important than others to always keep in mind when decisions are being made. The third section presents a brief description of key strategies that must be pursued at every opportunity in order to successfully implement this Plan.

ELEMENTS OF SUCCESSFUL PLAN IMPLEMENTATION

Central Ingredients

The central ingredients to successful Plan implementation will be:

- Commitment by the Joint Planning Committee, each Planning Commission, the City Council, the Village Council, the Township Board of Trustees and staff of the each jurisdiction.
- A citizenry better educated on the vision in this Plan. Information about desired residential development patterns, the fiscal and land use constraints of extending urban services, property rights, open space preservation, natural resource protection and new tools to improve and then sustain the quality of life in the Tri-Communities need to reach citizens or they may not understand why and how local decision-making is directed to implementing this Plan.

Focusing on Priorities

As the body principally responsible for preparing and maintaining a land use plan for a community, but one which also has substantial responsibilities in review of proposed developments for zoning compliance, it is easy for a Planning Commission to become distracted with ongoing tasks or ad hoc, controversial issues. Still, the Commission needs to prioritize its tasks relative to implementation of this Plan. Time needs to be set aside for high priority items. These include the preparation of an annual report and work program for the next year, drafting updates to the Zoning Ordinance, assisting with the preparation of a capital improvement program, and the five-year Plan update. These are discussed below.

Annual Tasks

An annual report on all activities undertaken by each Planning Commission with a special focus on actions taken to implement the Plan should be made to the governing body. A proposed work program that identifies priorities and projected expenses for the next year should also be prepared and submitted in time to be included in the annual

budget process. The Planning Commission should also assist the governing body with the preparation and annual updating of a capital improvement program. Each of these activities are prescribed by the Municipal Planning Act and/or the Township Planning Act. Capital improvement is currently not under the jurisdiction of any of the three respective governmental Planning Commissions.

PRIORITY RECOMMENDATIONS TO BE IMPLEMENTED

Neither a new Joint Planning Committee nor the individual Planning Commissions can be expected to implement all of the measures listed in this Plan alone. Many of these can only be accomplished with support from the respective governing bodies and with help from other agencies or groups. It is essential that discussions begin with each of these entities so that they understand the goals, find agreeable common ground where there are differences and obtain a commitment to a common action.

All Three Jurisdictions Together

- Public acquisition of the Denison property on both sides of the Kalamazoo River is the top priority for the Tri-Communities.
- Protection and maintenance of the Kalamazoo River and Lake Michigan, including protection of water quality and dredging of Kalamazoo Lake (which requires selection of a spoils site and petition to the U. S. Army Corps of Engineers for project approval and funding assistance).
- Update: In 2011 the City of Saugatuck completed acquisition of the 213 acre Saugatuck Harbor Natural Preserve Area south of the river mouth.

Governing Body Priorities

The following activities should be the key priorities of the governing bodies of the City of Saugatuck, City of the Village of Douglas and Saugatuck Township:

- Creation and support of a continuing Joint Planning Committee per the recommendation in Chapter 12 has been instituted.
- Support the efforts of the Joint Planning Committee and each Planning Commission to implement this Plan.

Planning Commission Priorities

The following activities should be the key priorities of the Joint Planning Committee and each Planning Commission for the next five years:

- Enlist the support and involvement of residents to achieve community goals and educate the public regarding the benefits of growth management and the vision, goals and policies of the updated Master Plan.
 - Inform through newsletters and periodic town meetings.
 - Post draft documents on the web and ask for review and comment.
- Review all current ordinances or regulations to note those sections that are not in conformity with the plan and make public the results of that review, whether in a report or such other manner as the commission deems appropriate, which will form a baseline document against which to measure progress.
- Update the respective Zoning Ordinances to be consistent with this Plan.
- Update other land development regulations in each jurisdiction (such as land division and subdivision regulations) as necessary to be consistent with this Plan.
- Develop a Tri-Communities Greenspace Plan in conjunction with each Park and Recreation Commission. This Plan would prioritize lands for open space preservation and greenway trails, identify and implement tools for acquisition of

title or development rights from willing sellers and set up funding mechanisms for implementation. It would detail how to ensure the establishment of connected open space as abutting properties are developed.

- Prepare additional sub-area plans to provide greater detail to desired development in each sub-area, such as is being done in Saugatuck for the Oxbow Peninsula, and may be desirable along the waterfront and along Blue Star Highway.
- Use this Plan in the analysis and review of proposed rezonings, zoning text amendments, site plans, and new or amended master plans of adjoining jurisdictions submitted for statutory review and comment.
- Closely coordinate land use policies with those of neighboring communities.
- Share key draft documents with adjoining jurisdictions for review and comment.
- Be sure to comment on draft documents of adjoining jurisdictions when presented for that purpose.
- Monitor neighboring jurisdiction and County agency decisions and periodically inform other local governments and the County Board of Commissioners on the status of efforts to implement this Plan.
- Join efforts with others outside the Tri-Communities to modernize planning and zoning enabling legislation and to authorize or use new tools to better manage growth and preserve open space.
- Develop and promote design guidelines by the Joint Planning Committee and each Planning Commission that illustrate how to protect rural and scenic character and open space values on private residential, commercial, public and institutional properties. Examples include the design guidelines for the **Grand Traverse Bay Region Development Guidebook** that illustrates a preferred development approach that protects scenic quality, open space, water quality and sensitive environments.
- Create residential development standards that set aside open space and employ vegetative buffers along roadsides and where there are sensitive environments, greenways and potential trail and wildlife corridors. These standards should be adopted as part of site plan review, cluster ordinances, conservation subdivision ordinances, site condominium ordinances and planned unit development ordinances.
- Create an aggressive tree planting and replacement program in all three jurisdictions along all public roads so that a new tree canopy will be in place as the many post-mature trees along public roads die off.
- Assist with preparation of an annual capital improvements program in each jurisdiction to guide the location of future public facilities consistent with this Plan.
- At least once each five years, this Plan should be thoroughly reviewed and updated by the Joint Planning Committee and each Planning Commission with support from each governing body.

Saugatuck City

Specific priority recommendations in the City of Saugatuck include:

- Complete preparation of a sub-area plan for the Oxbow Peninsula in cooperation with Saugatuck Township.
- Examine zoning along the waterfront with an eye to permitting limited mix use and more public views of the waterfront without increasing building height.
- Coordinate waterfront zoning changes with those of the City of the Village of Douglas and Saugatuck Township.

- Establish uniform height standards and maintain side yard setbacks.
- Where the opportunity exists to acquire property for public parks (even if just pocket parks), do so.
- Add groundwater and wetland protection to site plan review standards.

Photo 13-1

Preparation of an Oxbow Peninsula Sub-Area Plan is Important for Long-term Preservation



Photo by Aaron Sheridan

City of the Village of Douglas

Specific priority recommendations in the City of the Village of Douglas include:

- Complete a comprehensive reexamination of zoning district boundaries and permitted uses in a manner consistent with this Plan.
- Coordinate waterfront zoning changes with those of the City of Saugatuck and Saugatuck Township.
 - Establish uniform height standards and maintain side yard setbacks.
 - Where the opportunity exists to acquire property for public parks (even if just pocket parks), do so.
- Add groundwater and wetland protection to site plan review standards.

Saugatuck Township

Specific priority recommendations in the Township of Saugatuck include:

- Examination of the appropriate range of permitted uses, including mixed uses of property along Blue Star Highway. Pay special attention to not inadvertently undermine the integrity of existing local businesses in the City of Saugatuck and the City of the Village of Douglas.
- Examination of the permitted density in rural residential and agricultural parts of the Township with an eye to possible changes to reduce permitted density or which result in permanent protection of large amounts of open space so that overall development density in these areas is much lower than would occur at buildout under existing zoning.
- Coordinate waterfront zoning changes with those of the City of Saugatuck and the City of the Village of Douglas.

- Establish uniform height standards and maintain side yard setbacks.
- Where the opportunity exists to acquire property for public parks (even if just pocket parks), do so.
- Add groundwater and wetland or “Wellhead” protections to site plan review standards.
- Where there are pristine creeks and no public storm water facilities, consider density below 1 dwelling unit (DU)/2.5 acres unless significant mitigation measures are required (more than storm water detention, such as filter traps, cleaning, rain gardens, etc.)
- Obtain base line traffic counts from the County Road Commission on County Roads.
- Prepare sub-area plans for the Interstate Highway interchanges.

KEY STRATEGIES TO BE IMPLEMENTED

While the above priority initiatives are being implemented, the matters that come before planning commissions and governing bodies month-to-month will permit many opportunities to implement key policies in this Plan (see policies in Chapter 1). Following are key strategies that should be implemented at every opportunity through local zoning, subdivision regulations and capital improvement programs. Many may first require updates to existing Zoning Ordinances. Most of the following strategies focus on preservation of the existing character of the Tri-Communities:

- Protect the natural environment of the area AND Protect the visual quality of and visual access to the waterfront.
- Preserve farmlands that farmers want to preserve.
 - Continue to support farmers that enroll land in PA 116 or who choose to participate in a county, state or national PDR program.
 - Promote use of cluster zoning with at least 50% open space in agricultural areas.
- Encourage the use of land in accordance with its character and adaptability through the use of appropriate planning and zoning techniques.
 - Zone land presently used for continued low density/intensity use until utilities are available, and preserve connected open space with each new development proportionate to the size of the development and the use of adjoining lands.
 - Do not strip zone or spot zone.
 - Do not zone land for high intensity use outside existing urban service areas or areas planned for utility expansion within the next few years.
- Encourage the majority of new development to locate in areas where public utilities can be most efficiently and cost effectively provided.
 - Zone land at densities that promote use of public utilities where they are available (usually 4 dwelling units/acre or more).
- Provide an adequate level of public services and facilities to protect the public health, safety and welfare, and to ensure a high quality of life for residents.
 - Require connection to public sewer and water wherever feasible.
 - Require the developer to pay for extensions of public sewer and water except the portion of the cost of lines that are oversized for access by other properties.
 - Use capital improvement programs to provide public services to areas already developed but not presently served, and pay for with special assessments.
 - Require all new development to have connected streets, sidewalks or trails or planned connections if adjoining land is not developed.

Photo 13-2
**Preservation of Scenic Viewing Areas is Very Important
to Improving Quality of Life
as with this Opportunity Along Tannery Creek**



Photo by Aaron Sheridan

- Ensure that all new development is of high quality.
 - Be upfront with developers that nothing less than good design and the use of quality building materials is acceptable.
 - Provide bonuses for high quality design (increased density, approval for mixed use, fast track approval, etc.) where feasible and not counter to the achievement of other public objectives.
- Maintain or improve the character and stability of all existing single family neighborhoods and multiple family and manufactured housing communities by:
 - Adopting and implementing uniform property maintenance codes.
 - Participating in county low-interest home repair and improvement programs.
 - Encouraging blocks to create self-help home improvement projects for their neighbors in need.
- Provide a balanced range of affordable housing types at varying densities.
 - Ensure more land is zoned for residential use, but presently not used for residential use, in varying densities, where public utilities are present or could be quickly provided.
- Encourage high quality commercial development to locate adjacent to existing commercial development and only where planned and zoned for it.
 - Do not prematurely zone land for commercial use.
 - Maintain a range of commercial zones and zone into the classification most compatible with adjoining uses.
- Reserve land well suited for industrial use and resist rezoning to another classification.
- Identify and protect important historic structures.
 - Inventory historic structures and pass and thereafter implement an historic

preservation ordinance.

- Preserve the capacity and function of the existing arterial and collector streets and minimize the conflicts between their functions by regulating land use, building setbacks, and driveway openings, and where appropriate, by requiring the development of front or rear access service drives. In addition:
 - Expand access management regulations to be consistent with the **Michigan Access Management Guidebook** prepared by MDOT for local governments.
 - Encourage the Allegan County Road Commission to adopt access management regulations.
 - Keep zoning density very low on land adjoining gravel roads until/unless the road is paved (see **How Much Development is Too Much**, available from the Huron River Watershed Council).
 - Keep new housing set back at least 300 feet from the interstate highway and require the planting and maintenance of a very thick vegetative buffer between homes and the highway.
 - Adopt measures to support the development of the Complete Streets Initiative pursuant to legislation that requires local planners to consider new elements related to transportation. Tri-Communities should obtain copies of the complete streets model policies and begin working on adopting their own Complete Streets policy that emphasizes appropriate access for legal roadway users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit assistive device, foot and/or bicycle.

Photo 13-3

Maintaining Quality Streets and Preserving their Capacity is Important for Access by Residents and Visitors



Photo by Aaron Sheridan

- Be sure that all future rezoning(s) are consistent with this Plan and if not when proposed, then the Plan needs to be amended first (can be done concurrently).
- Be sure that future zoning text changes related to specific districts (e.g. permitted uses in commercial zones along Blue Star Highway) and other key standards are consistent with this Plan.

**Appendix:
Resolutions of Adoption**

**CITY OF SAUGATUCK
COUNTY OF ALLEGAN
STATE OF MICHIGAN**

RESOLUTION NO. 160421-A

**A RESOLUTION RECOMMENDING ADOPTION OF THE UPDATED
TRI-COMMUNITY MASTER PLAN**

At a regular meeting of the City of Saugatuck Planning Commission held on April 21, 2016 at the City of Saugatuck City Hall, the following Resolution was offered for adoption by Commission Member Schmidt, supported by Commission Member Lewis:

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare and periodically update a Master Plan for the use, development and preservation of all lands in the City; and

WHEREAS, the City of Saugatuck Planning Commission, in cooperation with the City of the Village of Douglas and Saugatuck Township Planning Commissions, prepared an updated Tri-Community Master Plan, titled the Tri-Community Master Plan, and submitted such plan to the City Council for review and comment; and

WHEREAS, the City of Saugatuck City Council received and reviewed the proposed Tri-Community Master Plan update prepared by the Planning Commission and authorized distribution of the updated Tri-Community Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on February 18, 2016 to consider public comment on the proposed Tri-Community Master Plan update, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, the Planning Commission finds that the proposed Tri-Community Master Plan update is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the City;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

The City of Saugatuck Planning Commission hereby approves the proposed Tri-Community Master Plan update, including all of the chapters, figures, descriptive matters, maps and tables contained therein, and recommends adoption of said plan to the City Council.


YEAS: Schmidt, Lewis, Crawford, Fox & McPolin

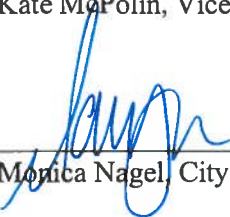
NAYS: None

ABSENT Muir, Hess

ABSTAIN: None

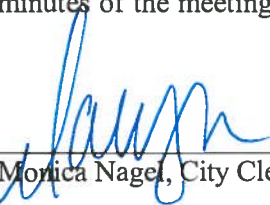
ADOPTED this 21st day of April, 2016

Signed: 
Kate McPolin, Vice Chairperson

Signed: 
Monica Nagel, City Clerk

CERTIFICATION

I, Monica Nagel, the duly appointed clerk of the City of Saugatuck do hereby certify the foregoing is a true and complete copy of a resolution adopted by the Saugatuck Planning Commission at a regular meeting held April 21, 2016, in compliance with the Open Meetings Act, Act No. 267 of the Public Acts of Michigan, 1976, as amended. The minutes of the meeting were kept and will be or have been made available as required by said Act.

Signed: 
Monica Nagel, City Clerk

COUNTY OF ALLEGAN
STATE OF MICHIGAN

RESOLUTION NO. 160425-A

A RESOLUTION ADOPTING THE PROPOSED
TRI-COMMUNITY MASTER PLAN

At a regular meeting of the City of Saugatuck City Council held on April 25, 2016 at the City of Saugatuck City Hall, the following Resolution was offered for adoption by Council Member Spangler and was seconded by Council Member Verplank:

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the City; and

WHEREAS, the City of Saugatuck Planning Commission, in cooperation with the City of the Village of Douglas and Saugatuck Township Planning Commissions, prepared an amended Tri-Community Master Plan and submitted such plan to the City Council for review and comment; and

WHEREAS, the City of Saugatuck City Council received and reviewed the proposed Tri-Community Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on February 18, 2016 to consider public comment on the proposed Tri-Community Master Plan, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, after the public hearing was held, the Planning Commission voted to approve the amended Tri-Community Master Plan on April 21, 2016 and recommended approval of the proposed Tri-Community Master Plan to the City Council; and

WHEREAS, the City Council finds that the proposed Master Plan is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the City;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. ***Adoption of 2016 Tri-Community Master Plan.*** The City of Saugatuck City Council hereby approves and adopts the proposed Tri-Community Master Plan, including all of the chapters, figures, descriptive matters, maps and tables contained therein.

2. ***Distribution to Notice Group.*** Pursuant to MCL 125.3843, the City Council approves distribution of the amended Tri-Community Master Plan to the Notice Group.

3. **Findings of Fact.** The City Council has made the foregoing determination based on a review of existing land uses in the City, a review of the existing Tri-Community Master Plan provisions and maps, and input received from the Planning Commission and the public, as well as the assistance of professional planning staff and consultants. The City Council also finds that the amended Tri-Community Master Plan will accurately reflect and implement the City's goals and strategies for the use, preservation, and development of lands within the City of Saugatuck.

4. **Effective Date; Repeal.** The amended Tri-Community Master Plan shall become effective on the adoption date of this resolution. The prior Tri-Community Master Plan is hereby repealed upon the Tri-Community Master Plan becoming effective.


YEAS: Council Members: Spangler, Verplank, Bekken, Hess, Johnson & Trester


NAYS: Council Members: None

ABSTAIN: Council Members: None

ABSENT: Council Members: Peterson

ADOPTED this 25th day of April, 2016

Signed: 
Ken Trester, Mayor Pro-Tem

Signed: 
Monica Nagel, City Clerk

CERTIFICATION

I, Monica Nagel, the duly appointed clerk of the City of Saugatuck do hereby certify the foregoing is a true and complete copy of a resolution adopted by the Saugatuck City Council at a regular meeting held April 25, 2016, in compliance with the Open Meetings Act, Act No. 267 of the Public Acts of Michigan, 1976, as amended. The minutes of the meeting were kept and will be or have been made available as required by said Act.

Signed: 
Monica Nagel, City Clerk

**SAUGATUCK TOWNSHIP
ALLEGAN COUNTY, MICHIGAN
PLANNING COMMISSION RESOLUTION**

At a regular meeting of the Saugatuck Township Planning Commission held on February 22, 2016, at the Saugatuck Township Hall, the following Resolution was offered for adoption by Commission Member B. Rowe, supported by Commission Member E. Welk:

**A RESOLUTION RECOMMENDING ADOPTION OF THE UPDATED
TRI-COMMUNITY MASTER PLAN**

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare and periodically update a Master Plan for the use, development and preservation of all lands in the Township; and

WHEREAS, the Saugatuck Township Planning Commission, in cooperation with the City of Saugatuck and City of the Village of Douglas Planning Commissions, prepared an updated Tri-Community Master Plan, titled the Tri-Community Master Plan, and submitted such plan to the Township Board for review and comment; and

WHEREAS, the Saugatuck Township Board received and reviewed the proposed Tri-Community Master Plan update prepared by the Planning Commission and authorized distribution of the updated Tri-Community Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA;
and

WHEREAS, the Planning Commission held a public hearing on February 22, 2016 to consider public comment on the proposed Tri-Community Master Plan update, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, the Planning Commission finds that the proposed Tri-Community Master Plan update is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the Township;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

The Saugatuck Township Planning Commission hereby approves the proposed Tri-Community Master Plan update, including all of the chapters, figures, descriptive matters, maps and tables contained therein, and recommends adoption of said plan to the Township Board.

YEAS: K. Miller-Cook, B. Rowe, M. Conklin, E. Welk, B. Rudich.

NAYS: None.

ABSENT/ABSTAIN: J. Milauckas, A. Prietz.

RESOLUTION DECLARED ADOPTED.

CERTIFICATION

I hereby certify that the above is a true copy of a resolution adopted by the Saugatuck Township Planning Commission at the time, date, and place specified above pursuant to the required statutory procedures.

Dated: 2/26/16

By: 

**SAUGATUCK TOWNSHIP
ALLEGAN COUNTY, MICHIGAN**

(Resolution No. 2016-06)

At a regular meeting of the Saugatuck Township Board held on March 2, 2016 at the Saugatuck Township Hall, the following Resolution was offered for adoption by Board Member W. Wester and was seconded by Board Member J. Phillips:

**A RESOLUTION ADOPTING THE PROPOSED
TRI-COMMUNITY MASTER PLAN**

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the Township; and

WHEREAS, the Saugatuck Township Planning Commission, in cooperation with the City of Saugatuck and City of the Village of Douglas Planning Commissions, prepared an amended Tri-Community Master Plan and submitted such plan to the Township Board for review and comment; and

WHEREAS, the Saugatuck Township Board received and reviewed the proposed Tri-Community Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on February 22, 2016 to consider public comment on the proposed Tri-Community Master Plan, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, after the public hearing was held, the Planning Commission voted to approve the amended Tri-Community Master Plan on February 22, 2016 and recommended approval of the proposed Tri-Community Master Plan to the Township Board; and

WHEREAS, the Township Board finds that the proposed Master Plan is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the Township;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. **Adoption of 2016 Tri-Community Master Plan.** The Saugatuck Township Board hereby approves and adopts the proposed Tri-Community Master Plan, including all of the chapters, figures, descriptive matters, maps and tables contained therein.

2. **Distribution to Notice Group.** Pursuant to MCL 125.3843, the Township Board approves distribution of the amended Tri-Community Master Plan to the Notice Group.

3. **Findings of Fact.** The Township Board has made the foregoing determination based on a review of existing land uses in the Township, a review of the existing Tri-Community Master Plan provisions and maps, and input received from the Planning Commission and the public, as well as the assistance of professional planning staff and consultants. The Township Board also finds that the amended Tri-Community Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands within Saugatuck Township.

4. **Effective Date; Repeal.** The amended Tri-Community Master Plan shall become effective on the adoption date of this resolution. The prior Tri-Community Master Plan is hereby repealed upon the Tri-Community Master Plan becoming effective.

YEAS: B. Rudich, W. Wester, L. Babinski, J. Phillips

NAYS: None.

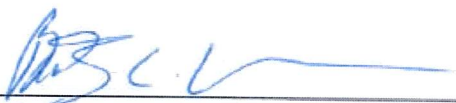
ABSENT/ABSTAIN: R. McIlwaine.

RESOLUTION DECLARED ADOPTED.

CERTIFICATION

I hereby certify that the above is a true copy of a resolution adopted by Saugatuck Township at the time, date, and place specified above pursuant to the required statutory procedures.

Date: 3/2/16



Brad Rudich, Township Clerk

**CITY OF THE VILLAGE OF DOUGLAS
ALLEGAN COUNTY, MICHIGAN
PLANNING COMMISSION RESOLUTION**

At a regular meeting of the City of the Village of Douglas Planning Commission held on April 13, 2016, at the City of the Village of Douglas City Hall, the following Resolution was offered for adoption by Commission Member Sapita, supported by Commission Member Heneghan:

**A RESOLUTION RECOMMENDING ADOPTION OF THE UPDATED TRI-
COMMUNITY MASTER PLAN**

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare and periodically update a Master Plan for the use, development and preservation of all lands in the City; and

WHEREAS, the City of the Village of Douglas Planning Commission, in cooperation with the City of Saugatuck and Saugatuck Township Planning Commissions, prepared an updated Tri-Community Master Plan, titled the Tri-Community Master Plan, and submitted such plan to the City Council for review and comment; and

WHEREAS, the City of the Village of Douglas City Council received and reviewed the proposed Tri-Community Master Plan update prepared by the Planning Commission and authorized distribution of the updated Tri-Community Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on March 9, 2016 to consider public comment on the proposed Tri-Community Master Plan update, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, the Planning Commission finds that the proposed Tri-Community Master Plan update is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the City;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

The City of the Village of Douglas Planning Commission hereby approves the proposed Tri-Community Master Plan update, including all of the chapters, figures, descriptive matters, maps and tables contained therein, and recommends adoption of said plan to the City Council.

YEAS: Burdick, Pattison, Sapita, Heneghan, and Hurley

NAYS: _____


ABSENT/ABSTAIN: Balmer, Sarris

RESOLUTION DECLARED ADOPTED.

CERTIFICATION

I hereby certify that the above is a true copy of a resolution adopted by the City of the Village of Douglas Planning Commission at the time, date, and place specified above pursuant to the required statutory procedures.

Dated: April 26, 2016

By: 

**CITY OF THE VILLAGE OF DOUGLAS
COUNTY OF ALLEGAN
STATE OF MICHIGAN**

RESOLUTION NO. 17-2016

RESOLUTION ADOPTING THE PROPOSED TRI-COMMUNITY MASTER PLAN

At a regular meeting of the City Council for the City of the Village of Douglas, Michigan, held at the City of the Village of Douglas City Hall, Douglas, Michigan, on the 2nd day of May, 2016, at 7:00 p.m.

PRESENT: Greenwood, Harvath, Japinga, Mooradian, Schmidt, Seabert, Wiley

ABSENT: None

The following Resolution was offered by Councilperson Harvath and supported by Councilperson Greenwood.

RESOLUTION

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the City; and

WHEREAS, the City of Douglas Planning Commission, in cooperation with the City of Saugatuck and Saugatuck Township Planning Commissions, prepared an amended Tri-Community Master Plan and submitted such plan to the City Council for review and comment; and

WHEREAS, the City of Douglas City Council received and reviewed the proposed Tri-Community Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on March 9, 2016 to consider public comment on the proposed Tri-Community Master Plan, and to further review and comment on the proposed Tri-Community Master Plan; and

WHEREAS, after the public hearing was held, the Planning Commission voted to approve the amended Tri-Community Master Plan on April 13th, 2016 and recommended approval of the proposed Tri-Community Master Plan to the City Council; and

WHEREAS, the City Council finds that the proposed Master Plan is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the City.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. ***Adoption of 2016 Tri-Community Master Plan.*** The City of Douglas City Council hereby approves and adopts the proposed Tri-Community Master Plan, including all of the chapters, figures, descriptive matters, maps and tables contained therein.
2. ***Distribution to Notice Group.*** Pursuant to MCL 125.3843, the City Council approves distribution of the amended Tri-Community Master Plan to the Notice Group.
3. ***Findings of Fact.*** The City Council has made the foregoing determination based on a review of existing land uses in the City, a review of the existing Tri-Community Master Plan provisions and maps, and input received from the Planning Commission and the public, as well as the assistance of professional planning staff and consultants. The City Council also finds that the amended Tri-Community Master Plan will accurately reflect and implement the City's goals and strategies for the use, preservation, and development of lands within the City of Douglas.

4. **Effective Date; Repeal.** The amended Tri-Community Master Plan shall become effective on the adoption date of this resolution. The prior Tri-Community Master Plan is hereby repealed upon the Tri-Community Master Plan becoming effective.

YEAS: Council Members: Greenwood, Harvath, Japinga, Mooradian, Schmidt, Seabert, Wiley

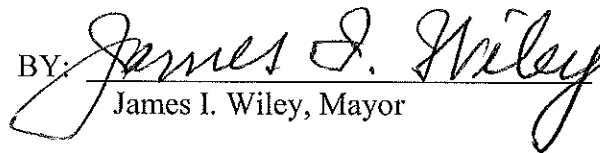
NAYS: Council Members: None

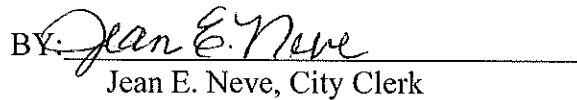
ABSTAIN: Council Members: None

ABSENT: Council Members: None

ADOPTED this 2nd day of May, 2016.

CITY OF THE VILLAGE OF DOUGLAS

BY: 
James I. Wiley, Mayor

BY: 
Jean E. Neve, City Clerk

CERTIFICATION

I, Jean E. Neve, the duly appointed Clerk of the City of the Village of Douglas, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the Douglas City Council at a regular meeting held May 2, 2016 in compliance with the Open Meetings Act, Act No. 267 of the Public Acts of Michigan, 1976, as amended, the minutes of the meeting were kept and will be or have been made available as required by said Act.

CITY OF THE VILLAGE OF DOUGLAS

BY Jean E. Neve
Jean E. Neve, City Clerk